

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
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NAME Wolf, Steven L.	POSITION TITLE		
eRA COMMONS USER NAME SLWOLF	Professor, Department of Rehabilitation Medicine		
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Clark University, Worcester, MA	BA	1965	Biology
Columbia University, New York, NY	Certificate	1966	Physical Therapy
Boston University, Boston, MA	MS	1968	Physical Therapy
Emory University, Atlanta, GA	MS	1972	Anatomy
Emory University, Atlanta, GA	Ph.D.	1973	Neurophysiology

A. Positions and Honors.**Positions and Employment**

1969-70 Instructor, Anatomy and Physiology, Boston University, Boston, MA
 1975-88 Principal Investigator, Emory University Rehab. Research & Training Center, Atlanta, GA
 1975-85 Assistant Professor, Dept. Anatomy, Emory University School of Medicine, Atlanta, GA
 1975-77 Assistant Professor, Dept. of Rehab. Med., Emory University School of Medicine, Atlanta, GA
 1978-85 Associate Professor, Dept. of Rehab. Med., Emory University School of Medicine, Atlanta, GA
 1988- Associate Professor, Dept. Anat. and Cell Biology, Emory University School of Medicine,
 1985- Professor, Dept. of Rehabilitation Medicine, Emory University School of Medicine, Atlanta, GA
 1996- Professor of Geriatrics, Dept Medicine, Emory University School of Medicine, Atlanta, GA
 2002- Professor, Department of Adult and Elder Care, Nell Hodgson Woodruff School of Nursing, Emory University, Atlanta, GA

Other Experience and Professional Memberships

NIH National Center for Rehabilitation Research, National Institute of Child Health and Human Development
 Initial Review Group, Medical Rehabilitation Research Subcommittee, 1996- 2001
 Canadian Stroke Network Review Panel, 2003-
 NINDS, Study Section A (Ad hoc reviewer), 2001-NIH NCMRR Musculoskeletal and Rehab Sci Study Section, 2004-07
 NIH NCMRR Advisory Council, 2006-2010 and representative to NICHD, 2008-2010
 Series Editor, Contemporary Perspectives in Rehabilitation, F.A. Davis Company, Philadelphia, PA, 1985-
 Associate Editor, Topics in Stroke Rehabilitation, 1988-, J Electromyography and Kinesiology, 1992-, Canadian J. Rehabilitation, 1994-, Neurorehab and Neural Repair, 2002 -, J Neuroengineering and Rehabilitation, 2004-
 Editorial Board, Physical Therapy Reviews, 1996-
 Advisory Board Member, Internat Physiotherapy Research Journal, 1995-
 Assoc Editor, Physiotherapy Research International, 1995-2000
 Manuscript reviewer: JAGS, J Geront, NEJM, JAMA, Brit Med J, Arch PM&R, Exp Neurol, Exp Brain Res, J Neurophys

Honors

Marian Williams Research Award, 1980
 Georgia Merit Award, Physical Therapy Association of Georgia, 1983
 Golden Pen Award, American Physical Therapy Association, 1983
 Catherine Worthingham Fellow of the American Physical Therapy Association, 1987

President, Association of Applied Psychophysiology and Biofeedback, 1991-92
Helen J. Hislop Award for Outstanding Contributions to Professional Literature, APTA, 1993
Award of Excellence, Section on Clinical Electrophysiology, APTA, 1993
Steven J. Rose Memorial Lectureship, Washington University, St. Louis, Missouri, 1994
Lucy Blair Service Award, APTA, 1996
First John V. Basmajian Lectureship, International Society of Electrophysiology and Kinesiology, 1996
Section on Geriatrics, APTA, Outstanding published paper award, 1997.
Neurology Section, APTA, Outstanding Researcher Award, 1998.
Lester Duplechen Outstanding Faculty Teacher Award, Department of Rehabilitation Medicine, 1999.
Stroke Council, American Heart Association, 1999-
Mary McMillan Lecturer, APTA 2002
Keynote Speaker (Phys Ther): University of Delaware (2001), Pittsburgh (2002), Emory (2003), Arcadia (2004), Cleveland Clinic (2004), Temple University (2005), Columbia (2006)
Wolf SL, Barnhart HX, Kutner NG, et al: Exercise training and subsequent falls among older persons: Comparison of Tai Chi and computerized balance training. JAGS 44:489-497, 1996. (reprinted 2003 as "Best paper of the 1990's") (JAGS).
17th Annual Japan Neurorehabilitation Society Mtg, Keynote Lecturer, 2005

B. Selected peer-reviewed publications (in chronological order from over 180).

1. Wolf SL, Barnhart HX, Kutner NG, et al: Exercise training and subsequent falls among older persons: Comparison of Tai Chi and computerized balance training. JAGS, 1996, 44:489-497. (REPRINTED 2003, VOTED JAGS PAPER OF THE DECADE, 90'S)
2. Blanton S, Wolf SL: Effectiveness of upper extremity constraint-induced movement therapy on a patient with sub-acute stroke. Physical Therapy, 1999, 79:847-853.
3. Wolf SL, Catlin PA, Gage K, Gurucharri K, Robertson R, Stephen K: Establishing the reliability and validity of the functional ambulation profile. Physical Therapy, 1999, 79:1122-1133.
4. Sathian K, Greenspan A, Wolf SL: Doing it with mirrors - a novel approach to stroke rehabilitation. J. Neural Repair and Neuroscience, 2000, 14:73-76.
6. Baer HR, Wolf SL: The modified Emory Functional Ambulation Profile: an outcome measure for the rehabilitation of post-stroke gait dysfunction. Stroke 2001, 32:973-979.
7. Wolf SL, Catlin PA, Ellis M, Link A, Morgan B, Piacentino A: Assessing the Wolf motor function test as an outcome measure for research with patients post-stroke. Stroke, 2001, 32:1635-39.
8. Wolf SL, Blanton S, Baer H, Breshears J, Butler AJ: The emergence of repetitive task practice in upper extremity neurorehabilitation of patients with stroke: A critical review of constraint induced movement therapy and mechanisms related to TMS, The Neurologist, 2002, 8:325-338.
9. Butler AJ, Wolf SL: Transcranial magnetic stimulation to assess cortical plasticity: A critical perspective. J Rehab Med, 2003, 41:20-26.
10. Winstein CJ, Miller JP, Blanton S, Morris D, Uswatte G, Taub E, Nichols D, Wolf SL: Methods for a multi-site randomized trial to investigate the effect of constraint-induced movement therapy in improving upper extremity function among adults recovering from a cerebrovascular stroke, Neurorehabilitation and Neural Repair, 2003, 17:137-52.
11. Baracca S, Wolf SL, Fasoli S, Bohannon R: Treatment interventions for the paretic upper limb of stroke survivors: A critical review. Neurorehab and Neural Repair, 2003, 17:220-226.
12. Park S-W, Butler AJ, Cavalheiro V, Alberts JL, Wolf SL: Changes in serial optical topography and TMS during task performance after Constraint-Induced Movement Therapy in stroke: A case study. J Neurorehabilitation and Neural Repair, 2004, 18:95-106.
13. Wolf SL, Butler AJ, Campana GI, Struys DM, Weinstein SR, Parris TA: Intra-subject reliability of parameters contributing to maps generated by transcranial magnetic stimulation in able-bodied adults. Clin Neurophysiol, 2004, 115:1740-1747.
14. Alberts JL, Butler AJ, Wolf SL: Improved force control among patients with sub-acute stroke after constraint. constraint-induced therapy. Neurorehab and Neural Repair, 2004, 18:250-258.

15. Hass CJ, Gregor RJ, Oliver A, Waddell DE, Smith DW, Fleming RP, Wolf SL: Tai Chi training Alters the Center of Pressure Trajectory During Gait Initiation in Older Adults, Arch Phys Med Rehabil, 2004, 85:1593-1598.
16. Wolf SL, Butler AJ, Alberts J, Kim M-W: Contemporary linkages between EMG, kinetics and stroke rehabilitation. JEMG and Kinesiol, 2005;15:229-239.
17. Wolf SL, Thompson PA, Morris DM, Rose DK, Winstein CJ, Taub E, Giuliani C, Pearson SL: The EXCITE Trial: Baseline attributes of the Wolf Motor Function Test in patients with sub-acute stroke. Neurorehab Neural Repair, 2005, 19:194-205.
18. Corneal SF, Butler AJ, Wolf SL: Intra- and inter-subject reliability of abductor pollicis brevis muscle motor map characteristic with transcranial magnetic stimulation. Arch Phys Med Rehabil, 2005, 86:1670-1675.
19. Butler AJ, Kahn S, Wolf SL, Weiss P: Finger extensor variability in TMS parameters among chronic stroke patients J Neuroengineering and Rehabilitation, 2005, 2:10 (1-13).
20. Gordon AM, Charles J, Wolf SL: Methods of constraint-induced movement therapy for children with hemiplegic cerebral palsy: Development of a child-friendly intervention for improving upper extremity function. Arch Phys Med Rehabil, 2005, 86:837-844.
21. Darling WG, Butler AJ, Wolf SL: Variability of motor evoked potentials induced by transcranial magnetic stimulation depends on muscle activation. Exp Brain Res. 2006;173:1-10
22. Gordon AW, Charles J, Wolf SL: Efficacy of constraint-induced movement therapy on involved-upper extremity use in children with hemiplegic cerebral palsy is not age-dependent. Pediatrics, 2006, 117:363-373.
23. Wolf SL, Winstein C, Miller JP, Taub E, Uswatte G, Morris D, Giuliani C, Light K, Nichols-Larsen D: Improving Upper Extremity Function among Patients 3-9 Months Post-stroke: The EXCITE National Randomized Clinical Trial . JAMA, 2006;296-2095-2104.
24. Wolf SL, Winstein CJ, Miller JP, Blanton S, Larsen D, Clark PC: Looking in the rear view mirror when conversing with back seat drivers: The EXCITE Trial Revisited. Neurorehab and Neural Repair. 2007;21:379-387.
25. Blanton S, Wilsey H, Wolf SL: Constraint induced movement therapy in stroke rehabilitation: Perspectives on future clinical applications. Neurorehabilitation, 2008, 23:15-28.
26. Wolf SL, Winstein C, Miller JP, Thompson P, Taub E, Uswatte G, Morris D, Blanton S, Clark PC Retention of upper limb function in stroke survivors who have received constraint-induced movement therapy: the EXCITE randomised trial. Lancet Neurology, 2008, 7:33-40
27. Greenfield B, Goldberg, A, Wolf SL, Curtis C: Ethical, legal and social issues of genomics: Implications for physical therapy education. J Phys Ther Education, 2008;22:4-14. Winner of the 2009 Stanford Award for Outstanding 2008 in Physical Therapy Education Journal.

C. Research Support

Ongoing Research Support

1 R01 NS056256 Winstein, Wolf, Dromerick (co-PIs) 04/01/08 – 03/31/13 30%

Interdisciplinary Comprehensive Arm Rehab Evaluation (I-CARE) for Stroke Initiative

This multisite trial determines whether a specific upper extremity procedure, accelerated skill acquisition program (ASAP) can improve function and quality of life among patients who are 1-3 months post stroke.

Role: Emory site PI

1 R01 NS053822-01A2 Ting (PI) 10/1/06 - 9/30/10 05%

Neuromechanical Determinants of Muscle Activity during Human Postural Responses.

This study examines the temporal and spatial muscles responses in the lower extremity and axial skeleton to specific perturbations.

Role: Investigator

1R44 HD041805 Koeneman (PI) 5/1/05 – 6/30/09 20%
Clinical Assessment of a Massed Practice Device

This study examines the extent to which a robotic device for paretic hand and wrist spasticity can be applied successfully in a home environment.

Role: Emory site PI

Active Hand Study Wolf/Milton (PIs) 3/1/07 – 8/30/09 25%
Allergan

This double blind study examines the extent to which Botox improves paretic hand function over a 4 month interval in patients with minimal wrist and finger extension compared to a saline placebo.

AMES (Accessory Movement with Enhanced Stimulation) Wolf (PI) 10/1/07 – 12/30/09 02%
AMES, Inc.

This blinded study examines the use of passive movement at either the ankle or wrist joints combined with either real or sham vibration to the skin over the musculature being lengthened during passive movement in acute severely impaired stroke survivors. All patients receive concurrent upper extremity rehabilitation.

Functional outcomes are assessed periodically throughout the 6-9 week treatment period.

Completed Research Support

R01 HD 37606 Wolf (PI) 4/1/00 – 3/31/05
NCMRR(NICHHD)-NINDS 4/1/05 – 3/31/07

Extremity Constraint-Induced Training Evaluation (EXCITE) national randomized clinical trial
This study determined if constraining the better limb produces meaningful functional improvement after two weeks of constraint use of the impaired limb among patients with sub-acute and chronic stroke

AT 002138 Butler (PI) 10/1/04 – 2/28/07
NCCAM

Mental Imagery to Reduce Motor Impairments in Stroke

This project compares the roll of mental imagery to traditional upper extremity therapy in improving function among patients with stroke, including detailed assessments of fMRI changes.

Role: Investigator

Pending

R01 HD057020-01A Alberts (PI) 09/01/09 – 08/30/13 20%
The Stroke Assistive Repetitive Motion Trial

This multi-site trial determines the extent to which use of a robotic device as part of an upper extremity stroke rehabilitation training procedure is superior to a dose equivalent standardized upper extremity treatment program in post-acute patients.

R01 submissions (mechanistic studies as companion grants to ICARE):

Imaging recovered function after stroke Butler (PI) 6/01/09 – 11/30/4 09%

Recovery of upper extremity function following stroke: Restitution or compensatory adaptation
Lum (PI) 4/01/09– 03/31/15 05%