

CURRICULUM VITAE FORMAT  
University of Pittsburgh  
School of Health and Rehabilitation Sciences

**BIOGRAPHICAL**

**Name:** Jessie VanSwearingen

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**Birth Place:** Pittsburgh, PA, USA

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**Business Address:** University of Pittsburgh  
Department of Physical Therapy  
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100 Technology Drive, Pittsburgh, PA 15219

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**UNDERGRUATE:**

1974-1978	University of Delaware Newark, DE 19711	BS, PT, 1978	Physical Therapy
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**GRADUATE:**

1980-1981	The Ohio State University Columbus, OH	MS, 1981	Physical Therapy
1987-1992	University of Pittsburgh Pittsburgh, PA	PhD, 1992	Neurobiology, Anatomy and Cell Science, School of Medicine

**APPOINTMENTS and POSITIONS**

**ACADEMIC:**

2022-present	Department of Physical Therapy, University of Pittsburgh, Pittsburgh, PA	Professor, tenured
1998-2022	Department of Physical Therapy, University of Pittsburgh, Pittsburgh, PA	Associate Professor, tenured
2006-present	Clinical and Translational Science Institute, University of Pittsburgh, Pittsburgh, PA	Secondary faculty appointment
2000-present	McGowan Institute for Regenerative Medicine, University of Pittsburgh, Pittsburgh, PA	Secondary faculty appointment
1985-1998	Department of Physical Therapy, University of Pittsburgh, Pittsburgh, PA	Assistant Professor
1994-2012	School of Nursing, University of Pittsburgh, Pittsburgh, PA	Secondary faculty appointment
1993-2006	Facial Nerve Center, University of Pittsburgh Medical Center	Director Facial Rehabilitation



Catherine Worthingham Fellow, American Physical Therapy Association	2008
Alumni Award, University of Delaware, Physical Therapy Department	2001
Manuscript Reviewer of the Year 1999, recognition of outstanding contributions to Physical Therapy Journal, APTA	2000
Excellence in Neurology Award, Pennsylvania Physical Therapy Association, Neurology Special Interest Group, to an outstanding clinician and scholar in neurological physical therapy	1999
Community Champion Award, 16 years volunteer service to Bethlehem Haven Shelter for Homeless Women, TCI & Pittsburgh Post-Gazette, Pittsburgh, PA	1998
Fourth Annual Mentor Award, Survival Skills and Ethics Program, University of Pittsburgh	1998
Health Care Hero Award: Health Care Provider, Non-Physician Category Pittsburgh Business Times	1997
Chattanooga Research Award for the Best Article on Clinical Research Published in Physical Therapy	1996
Health Care Heroes Award, Finalist - Health Care Provider Category, Pittsburgh Business Times	1996
NIA, Summer Institute on Research in Aging (selected participant)	1995
Superior Performance Achievement Award, for Patient Care Services, Geriatric Evaluation and Management Program, VAMC-Pittsburgh	1995
Sigma Xi, University of Pittsburgh Chapter	1994
Center for Neuroscience, University of Pittsburgh Travel Award	1991
Research Award, Southwestern District, PPTA	1988
Service Award, St. Clair Hospital	1983
Research Presentation Award, Pennsylvania Physical Therapy Association	1982
Mary McMillan Scholar, American Physical Therapy Association	1978
Bailey Memorial Award, University of Delaware	1978
Mortar Board and Phi Kappa Phi	1977
H. Rodney Sharp Scholar, University of Delaware	1974-1978

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## PUBLICATIONS

### Refereed

- Brach JS, Perera S, Shuman V, Gil A, Kriska A, Nadkarni NK, Cham R, **VanSwearingen JM**. Effect of timing and coordination training on mobility and physical activity among community-dwelling older adults: A randomized clinical trial. *JAMA Netw Open* 2022;5(5):e2212921. doi:10.1001/jamanetworkopen.2022.12921
- VanSwearingen JM**, Knox S, Lowry KAL, Allison LK, Ciolek C, Miller KL, Avin KG, Hartley GW. Academy of Geriatric Physical Therapy Research Agenda: Rationale for the development and the intent for use. *J Geriatr Phys Ther* 2022; 45(2):76-79.
- Suri A, **VanSwearingen J**, Dunlap P, Redfern MS, Rosso AL, Sejdić E. Facilitators and barriers to real-life mobility in community-dwelling older adults: A narrative review of accelerometry- and global positioning system-based studies. *Aging Clin Exp Res* (2022). <https://doi.org/10.1007/s40520-022-02096-x>.
- Suri A, Rosso A, **VanSwearingen J**, Coffman L, Redfern M, Brach J, Sejdic E. Mobility of older adults: accelerometry measures of gait quality are associated with life-space assessment scores. *J Gerontol A Biol Sci Med Sci*, 2021;76(10): e299–e306
- Shuman V, Coyle PC, Perera S, **VanSwearingen J**, Albert SM, Brach JS. Association between improved mobility and distal health outcomes. *J Am Geriatr Soc*. 2020;75:2412-2417.
- Brach JS, **VanSwearingen JM**, Gil A, Nadkarni NK, Kriska A, Cham R, Perera S. Program to improve mobility in aging (PRIMA) study: methods and rationale of a task-oriented motor learning exercise

Curriculum vitae

Jessie VanSwearingen, PhD, PT, FAPTA, FGSA

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- program. *Contemp Clin Trials* 2020;89:105912. PMID: PMC6945812
- Dasgupta P, **VanSwearingen J**, Godfrey A, Redfern M, Monterro-Odasso M, Sejdic E. Acceleration gait measures as proxies for motor skill of walking: a narrative review. *IEEE Trans Neural Sys Rehabil Eng* 2021;29:249-261. PMID: 33315570 PMID: PMC7995554
- Perera S, **VanSwearingen J**, Shuman V, Brach JS. Assessing gait efficacy in older adults: an analysis using item response theory. *Gait Posture* 2020;77:118-124. PMID: PMC7061088
- Coyle PC, Perera S, Shuman V, **VanSwearingen JM**, Brach JS. Development and validation of person-centered cut-points for the figure-of-8-walk test of mobility in community-dwelling older adults. *J Gerontol A Biol Sci Med Sci* 2020; 75:2404-2411. PMID: PMC7662178
- Lowry KA, Woods TM, Malone A, Krajak A, Smiley-Owen A, **VanSwearingen JM**. The Figure-of-8 Walk test used to detect the loss of motor control in walking among persons with Parkinson's disease. *Physiother Theory Pract*, 2020; 16:1-9 PMID: 32543340.
- Coyle PC, Perera P, Albert SM, Freburger JK, **VanSwearingen JM**, Brach JS. Potential long-term impact of "On the Move" group-exercise program on falls and healthcare utilization in older adults: an exploratory analysis of a randomized controlled trial. *BMC Geriatr* 2020;20:105. PMID: PMC7075006
- Huang WNW, **VanSwearingen J**. An observational treatment-based gait pattern classification method for targeting interventions for older adult males with mobility problems: Validity based on movement control and biomechanical factors. *Gait Posture* 2019; 71: 192-197.
- Halevi-Katz D, Sella O, Golan H, Banai, K, **VanSwearingen J**, Krisciunas GP, Verdolini Abbott K. Buteyko Breathing Technique for Exertion-induced Paradoxical Vocal Fold Motion (EI-PVFM). *J Voice* 2021: 35:40-51.
- Zeigler A, **VanSwearingen J**, Jakicic JM, Verdolini-Abbott K. Phonation demonstrates goal-dependence under unique vocal intensity and aerobic workload conditions. *J Speech Learn Hear Res* 2019;62: 2584-2600.
- Bland K, Lowry K, Krajek A, Woods T, **VanSwearingen J**. Spatiotemporal variability underlying skill in curved-path walking. *Gait Posture*, 2019; 67:137-141.
- Brach JS, Coffman L, Perera S, **VanSwearingen JM**. Characteristics of community-dwelling older adults who respond to a timing and coordination group exercise program. *J Aging Health* (submitted, February, 2019).
- Alqahtani BA, Sparto PJ, Whitney S, Greenspan S, Perera S, **VanSwearingen JM**, Brach JS. Effect of community-based group exercise interventions on standing balance and strength in independent living older adults. *J Geriatr Phys Ther* (accepted October, 2019) PMID: 31592997 PMID: PMC6788762.
- Collins KJ, Schrack JA, **VanSwearingen JM**, Glynn NW, Pospisil MC, Gant VE, Mackey DC. Randomized controlled trial of exercise to improve walking energetics among older adults with mobility limitation: the healthy steps study. *Innov Aging*. 2018;2(3): doi:10.1093/geroni/igy022
- Shembel A, Hartnick C, Bunting G, Ballif C, **VanSwearingen J**, Shaiman S, Johnson A, de Guzman V, Verdolini Abbott K. The study of laryngoscopic and autonomic patterns in exercise-induced laryngeal obstruction. *Ann Otol Rhin Laryngol* 2018;127:754-762
- Wert DM, Perera S, Nutini JF, Ricci EM, Coffman L, Turnquist R, **VanSwearingen J**, Brach J. Motor control-based group exercise: can it be delivered as effectively by lay leaders? *Translational J ACSM*. 2018;3:19-27.
- Perera A, Nadkarni N, Wert D. **VanSwearingen J**, Brach JS. Intraclass correlation coefficients for planning cluster randomized trials in community dwelling older adults. *J Aging Health* (published online, December, 2019; doi.org/10.1177/0898264318816216)
- Dasgupta P, **VanSwearingen J**, Sejdic E. "You can tell by the way i use my walk." predicting the presence of cognitive load with gait measurements. *BioMedical Engineering OnLine* (accepted, August 2018).
- Almarwani M, **VanSwearingen JM**, Perera S, Sparto PJ, Brach JS. The effect of auditory cueing on the spatial and temporal gait coordination in healthy adults. *J Mot Behav* 2019;51:25-31.
- Brach JS, Perera S J, Gilmore S, **VanSwearingen JM**, Brodine D, Nadkarni N, Ricci E. Effectiveness of a timing and coordination group exercise program to improve mobility in community-dwelling older adults: a randomized clinical trial. *JAMA Int Med* 2017;177(10):1437-1444.
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- Zhang Z, **VanSwearingen J**, Brach JS, Perera S, Sejdic. Most suitable mother wavelet for the analysis of fractal properties of stride interval time series via the average wavelet coefficient. *Computers Biol Med* 2017; 80: 175-184.
- Brach JS, Perera S J, Gilmore S, **VanSwearingen JM**, Wert D, Nadkarni N, Ricci E. Stakeholder involvement in the design of a patient-centered comparative effectiveness trial of the "On the Move" group exercise program in community-dwelling older adults. *Contemporary Clin Trials* 2016;50:135-142.
- Almarwani M, Perera S, **VanSwearingen JM**, Sparto PJ, Brach JS. Challenging the motor control of gait: gait variability during slower and faster pace walking conditions in younger and older adults. *Arch Gerontol Geriatr* 2016;66:54-61.
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- Almarwani M, Perera S, **VanSwearingen JM**, Sparto PJ, Brach JS. The test–retest reliability and minimal detectable change of spatial and temporal gait variability during usual over-ground walking for younger and older adults. *Gait & Posture* 2016;44:94-99.
- Lowry KA, Sebastian K, Perera S, **VanSwearingen J**, Smiley-Oyen AL. Age-related differences in locomotor strategies during adaptive walking. *J Motor Behav* 2017;49:435-440.
- Brach JS, Francois SJ, **VanSwearingen JM**, Gilmore S, Perera S, Studenski SA. Translation of a motor learning walking rehabilitation program into a group-based exercise program for community-dwelling older adults. *Phys Med Rehab* 2016; 8:520-528.
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- Sustakoski A, Perera S, **VanSwearingen JM**, Studenski SA, Brach JS. The impact of testing protocol on recorded gait speed. *Gait & Posture*, 2015; 41:329-331.
- VanSwearingen JM**, Studenski SA. Aging, motor skill, and the energy cost of walking: implications for the prevention and treatment of mobility decline in older persons. *J Gerontol A Biol Sci Med Sci* 2014; 69(11):1429-1436.
- Brach JS, Lowry K, Perera S, Wert DW, Hornyak V, Studenski SA, **VanSwearingen JM**. Improving motor control in walking: a randomized clinical trial in older adults with subclinical walking difficulty. *Arch Phys Med Rehabil* 2015;96:388-394.
- Nadkarni NK, Perera S, Studenski S, Rosano C, Aizenstein HJ, Brach JS, **VanSwearingen JM**. Callosal hyperintensities and gait rehabilitation: an analysis of gait speed gain from two types of mobility interventions in older adults. *Arch Phys Med Rehabil* 2015 96(6):1154-1157.
- Wert D, Brach JS, Perera S, **VanSwearingen J**. The test-retest reliability of indirect calorimetry measures of energy expenditure during overground walking in older adults with mobility limitations. *J Aging Phys Act* 2015, 23, 346 – 351.
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2014; 227:75-82.

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- Wert D, Brach JS, Perera S, **VanSwearingen J**. The association between energy cost of walking and physical function in older adults. *Arch Geront Ger* 2013; 57:198-203.
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- Nadkarni NK, Studenski S, Perera S, Rosano C, Aizenstein HJ, Brach JS, **VanSwearingen JM**. White matter hyperintensities, exercise and improvement in gait speed: does the type of gait rehabilitation matter? *J Am Geriatr Soc* 2013; 61:686-693.
- Lowry KA, **VanSwearingen JM**, Perera S, Studenski SA, Brach JS. Walking smoothness is associated with self-reported function after accounting for gait speed. *J Gerontol Med Sci* 2013; 68:1286-90.
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- Julius LM, Brach JS, Wert DW, **VanSwearingen JM**. Perceived effort of walking: relation to gait, physical function, activity, fear and confidence in walking in older adults with mobility limitations. *Phys Ther* 2012; 92 1268-1277. PMC3461131
- Hile ES, Brach JS, Perera S, Wert DM, **VanSwearingen JM**, Studenski SA. Initial support and maximum hold time: impact on tandem stance test. *Phys Ther* 2012; 92 1316-1328. PMC3461133
- Lowry KA, Brach JS, Nebes RD, Studenski SA, **VanSwearingen JM**. Contributions of cognitive function to straight- and curved-path walking in older adults. *Arch Phys Med Rehab* 2012; 93:802-807.
- Newell A, **VanSwearingen JM**, Hile ES, Brach JS. The modified gait efficacy scale: establishing the psychometric properties in older adults. *Phys Ther* 2012; 92:318-328.
- Hornyak V, **VanSwearingen JM**, Brach JS. Measurement of gait speed. *Top Geriatr Rehab* 2012;28:27-32.
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- VanSwearingen JM**, Perera S, Brach JS, Wert DW, Studenski SA. Exercise to improve gait efficiency: impact on activity and participation in older adults with mobility limitations. *Phys Ther* 2011;91:1740-1751.
- Brach JS, Perera S, **VanSwearingen JM**, Hile E, Wert D, Studenski SA. Challenging gait conditions predict 1-year decline in gait speed in older adults with apparently normal gait. *Phys Ther* 2011;91:1857-1864.
- Brach JS, McGurl D, Wert D, **VanSwearingen JM**, Perera S, Cham R, Studenski S. Validation of the smoothness of walking. *J Gerontol A Biol Sci Med Sci* 2011;66A:136-141.
- Wert D, Brach JS, Perera S, **VanSwearingen J**. The impact of gait biomechanics and gait characteristics on the energy cost of walking in older adults with impaired mobility. *Phys Ther* 2010; 90:977-985.
- Huang WNW, Perera S, **VanSwearingen J**, Studenski SA. Physical performance measures predict the onset of basic ADL difficulty in community-dwelling older adults. *J Am Geriatr Soc* 2010;58:844-852.
- Hess R, Brach J, Piva S, **VanSwearingen J**. Walking skill can be assessed in older adults: validity of the figure-of-8 walk test. *Phys Ther* 2010;90:89-99.
- Wert D, Talkowski J, Brach J, **VanSwearingen J**. Characteristics of walking, activity, fear of falling and falls in community dwelling older adults by residence. *J Geriatr Phys Ther* 2010; 33:41-45.
- VanSwearingen JM**, Perera S, Brach JS, Cham R, Rosano C, Studenski SA. A randomized trial of two forms of therapeutic activity to improve walking: effect on the energy cost of walking. *J Gerontol A Biol Sci Med Sci* 2009; 64A: 1190-1198.

- Huang WNW, **VanSwearingen J**, Brach J. Gait variability in older adults: observational rating validated by comparison with a computerized walkway gold standard. *Phys Ther* 2008;88:1146-1153.
- Sparto PJ, Aizenstein HJ, **VanSwearingen JM**, Rosano C, Perera S, Studenski SA, Furman JM, Redfern MS. Delays in auditory-cued step initiation are related to increased volume of white matter hyperintensities in older adults. *Exp Brain Res* 2008;188:633-640.
- Denlinger RL, **VanSwearingen JM**, Cohn JE, Schmidt KL. Puckering and blowing facial expressions for patients with facial movement disorders. *Phys Ther* 2008; 88:909-915.
- VanSwearingen J**. Facial rehabilitation: a neuromuscular reeducation, patient-centered approach. *Facial Plastic Surg* 2008;24: 250-259.
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- Rogers C, Schmidt KL, **VanSwearingen JM**, Cohn JF, Wachtmann GS, Manders EK, Deyeliannis FW-B. Automated Face Image Analysis: Detecting improvement in abnormal facial movement after treatment with Botulinum toxin A. *Ann Plast Surg* 2007; 58: 39-47.
- Brach JS, Studenski SA, Perera S, **VanSwearingen JM**, Newman AB. Gait variability and the risk of incident mobility disability in community-dwelling older adults. *J Gerontol Med Sci* 2007;62A:983-988.
- Merkel KE, Schmidt KA, Levenstein R, **VanSwearingen JM**. Positive affect predicts improved lip movement in facial movement disorder. *Otol Head Neck Surg* 2007; 137:100-104.
- Sajjadian A, Song A, Khorsandi CA, Deleyiannis F, VanSwearingen JM, Henkelmann TC, Hui K, Manders EK. One stage reanimation of the paralyzed face using the rectus abdominus neurovascular free flap. *Plastic Reconstructive Surg* 2006; 117: 1553-1559.
- Deyeliannis FW-B, Askari M, Schmidt KL, Henkelmann TC, **VanSwearingen JM**, Manders EK. Muscle activity in the partially paralyzed face after placement of a fascial sling. *Ann Plast Surg* 2005;55:449-455.
- Martin RL, Irrgang JJ, Burdett RG, Conti SF, **VanSwearingen JM**. Evidence of validity for the foot and ankle ability measure (FAAM). *Foot Ankle Int* 2005;26:968-983.
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- VanSwearingen JM**, Brach JS. Changes in facial movement and synkinesis with facial neuromuscular reeducation. *Plastic Reconstructive Surg* 2003;111:2370-2375.
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- Brach JS, **VanSwearingen JM**. Physical impairment and disability: Relation to physical function in community-dwelling frail older adults. *Phys Ther* 2002;82: 752-761.
- Brach JS, Kriska A, Newman AB, **VanSwearingen JM**. A new approach of measuring muscle impairment during a functional task: Quadriceps muscle activity recorded during chair stand. *J Gerontol Med Sci* 2001;56A:M767-M770.
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2001;81:1233-1252.

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- VanSwearingen JM**, Cohn JF, Bajaj-Luthra A. Specific impairment of smiling increases the severity of depressive symptoms in patients with facial neuromuscular disorders. *Aesthetic Plastic Surg* 1999; 23:416-423.
- Wachtman GS, Cohn JF, **VanSwearingen JM**, Manders EK. Pixel-wise tracking of facial movement by computer image processing. *Plastic Reconstructive Surg* 1999; 112:548-553.
- Pennock JD, Johnson PC, Manders EK, **VanSwearingen JM**. Relationship between muscle activity of frontalis and the associated brow displacement. *Plasti Reconstructive Surg* 1999; 104:1789-1799.
- Brach JS, **VanSwearingen JM**. Not all facial paralysis is Bell's palsy: A case report. *Arch Phys Med Rehabil* 1999;80:857-859.
- Brach, JS, **VanSwearingen, JM**. Physical therapy for facial paralysis: A tailored treatment approach. *Phys Ther* 1999;79:397-404.
- Barry MJ, VanSwearingen JM, Albright AL. Reliability and responsiveness of the Barry-Albright Dystonia Scale. *Dev Med Child Neurol* 1999; 41:404-411.
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- VanSwearingen JM**, Brach JS. A treatment-based classification system and tailored treatment approach for individuals with facial neuromotor disorders. *Phys Ther* 1998; 78: 678-689.
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- Brach JS, **VanSwearingen JM**, Delitto A, Johnson PC. Impairment and disability in individuals with facial neuromuscular dysfunction. *Otolaryngology-Head and Neck Surgery* 1997; 117:315-321.
- VanSwearingen JM**, Brach JS. The facial disability index: reliability and validity of a functional assessment instrument for disorders of the facial neuromuscular system. *Phys Ther* 1996; 76:1288-1300.
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- VanSwearingen, JM**, Paschal, KA, Bonino, P, Yang, JF. The modified gait abnormality rating scale for recognizing the risk of recurrent falls in community dwelling elderly adults. *Phys Ther* 1996; 76:994-1002.
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- Van Swearingen, JM**. Systematic clinical placement of physical therapy students, *Phys Ther* 1987; 67: 394-398.



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- Van Swearingen, JM.** Nutrition and the growing athlete. *J Orthop Sports Phys Ther* 1984; 6: 73-177.
- Van Swearingen, JM.** Measuring wrist muscle strength. *J Orthop Sports Phys Ther* 1983; 4:217-228.

#### Invited, book chapters

- Studenski S, **VanSwearingen J.** Gait Disorders: Clinical Significance and Approach to Evaluation and Management, in *Oxford Textbook of Geriatric Medicine*, 3rd edition, JP Michel, Beattie BL, Martin FC, Walston J, editors, London: Oxford University Press, 2017; Chapter 67.
- Studenski S, **VanSwearingen J.** Falls, in *Brocklehurst's Textbook of Geriatric Medicine and Gerontology*, 8th edition, HM Fillet, K Rockwood, J Young, eds, Philadelphia: Elsevier, 2017; Chapter 103:864-872.
- VanSwearingen JM,** Cohn JF. Smiling in facial paralysis. Chapter 31 in Beurskens CHG, vanGelder RS, Heymans PG, Manni JJ, Nicolai JPA (eds) *The Facial Palsies*, Netherlands: LEMMA Publishers, 2005.
- VanSwearingen JM.** Exercise, energy cost and aging in orthotic and prosthetic rehabilitation. Chapter 4, in Lusardi MM, Nielsen C (eds) *Orthotics and Prosthetics in Rehabilitation*, Newton, MA: Butterworth-Heinemann, 2000.
- VanSwearingen JM.** Electrical stimulation for improving muscle performance, Chapter 4, in Nelson R, Hayes K, Currier D (eds) *Clinical Electrotherapy*, third edition, Philadelphia, PA: Appleton & Lange, 1999.
- Carvell, GE and **Van Swearingen, JM.** Neurological Analysis of Sensory Motor Dysfunction, Chapter 17, in Scully R, and Barnes M, (eds), *Physical Therapy*, Philadelphia, Lippincott, 1989.

#### Invited, Curriculum / Educational Manuals

- Brach JS, Hornyak V, VanSwearingen JM (*question authors*). *Gait Disorders*. In: Harper GM, Lyons WL, Potter JF, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine, 10th ed.* New York, NY: American Geriatrics Society; anticipated publication 2019. <http://geriatricscareonline.org>

#### Presentations

- Anisha Suri, **Jessie VanSwearingen**, Emma M. Baillargeon, Breanna M. Crane, Michelle C. Carlson, Kyle D. Moored, Pamela Dunlap, Patrick Donahue, Mark S. Redfern, Jennifer S. Brach, Ervin Sejdic, Andrea L. Rosso, Association of Gait Quality with Daily Life Mobility: An Actigraphy and Global Positioning System Based Analysis in Older Adults, 8th International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM) by the International Society for the Measurement of Physical Behavior (ISMPB), June 2022
- McBroom A, Hicks H, Stevermer C, Roscher P, VanSwearingen J, Lowry K. Center of pressure during curved path walking; inform approaches to restore walking motor skill. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, 2022.
- Farren M, Stevermer C, Lowry K, VanSwearingen J. Indices of walking skill reflect differences in function in older adults with good mobility. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, 2022.
- Hicks H, McBroom A, Roscher P, **VanSwearingen J**, Lowry K. Foot mechanics define directional changes in curved-path walking: new methods to assess the motor skill of walking. GSA 2021 Annual Meeting, The Gerontological Society of America, November 2021 (virtual). *Innovation in Aging*, 2021;5(Supplement 1):1034–1035, <https://doi.org/10.1093/geroni/igab046.3700>

- Suri A, **VanSwearingen J**, Redfern M, Sejdic E, Rosso AL, Association between dual-task gait and cognitive function in older adults, GSA 2021 Annual Scientific Meeting, The Gerontological Society of America, November 2021
- Rosso AL, Chen N, Perera S, Huppert T, Rosano C, VanSwearingen J, Brach J. Impact of physical therapy interventions on prefrontal activation: a functional near-infrared spectroscopy study. GSA 2021 Annual Scientific Meeting, The Gerontological Society of America, November 2021
- Leftwich P, Stefko ST, **Van Swearingen J**, and Manders EK: Winking and Blinking: Take a Second Look. The Consequences of Non-Lateralized Innervation of Levator Palpebrae Superioris as a New Diagnostic Test for Facial Nerve Function and Recovery. First Place Clinical Paper at Research Day of the Department of Plastic Surgery, The University of Pittsburgh, June 25, 2021.
- Suri A, Rosso AL, **VanSwearingen J**, Coffman L, Brach JS, Sejdic E. Integrative measure of walking smoothness is associated with fear of falling, gait efficacy, and life-space in older adults, 2021 Society for Neuroscience (SfN) Global Connectome, January 2021.
- Suri A, Rosso AL, Chen N, Coffman L, **VanSwearingen J**, Redfern M, Brach J, Sejdic E. Clustering analyses based on gait qualities of community-dwelling older adults. 2021 Conference on Statistical Practice, American Statistical Association, February 2021.
- Farren M, McBroom A, Lowry K, **VanSwearingen J**. Do older adults need skill in addition to speed to function? 2021 Combined Sections Meeting, APTA, February 2021.
- Coffman L, Suri A, Sedjic E, Perera S, Rosso A, **VanSwearingen J**, Brach J. Associations between life space assessment and gait quality: informing assessment and treatment of older adults. 2021 Combined Sections Meeting, APTA, February 2021.
- VanSwearingen JM**, Perera S, Coffman L, Shuman V, Wert D, Brach J. Sleep quality and walking performance and motor skill. 2021 Combined Sections Meeting, APTA, February 2021.
- Suri A, Rosso AL, **VanSwearingen J**, Torres-Oviedo G, Coffman L M, Redfern M, Brach J, Sejdic E. Fear of falling and walking quality: What your walking reveals. 2020 Annual Scientific Meeting, Gerontological Society of America, November 2020 [Innovation in Aging, 2020, Vol. 4, No. S1].
- Suri A, Redfern M, Rosso A, Sejdic E, **VanSwearingen J**. Associations between accelerometry-based gait measures and life-space assessment scores in older adults. 2020 Symposium on Data Science & Statistics, June 2020.
- Woods T, Lowry K, **VanSwearingen J**. Age-related decline of curved path walking: evidence for the loss of adaptability. APTA Combined Sections Meeting 2020, Denver, Colorado, February 2020.
- Shuman V, Coyle PC, Perera S, **VanSwearingen J**, Albert SM, Brach JS. What does it mean to move the needle on mobility? Assessing impact on health outcomes. APTA Combined Sections Meeting 2020, Denver, Colorado, February 2020.
- Coyle PC, Perera S, Shuman V, **VanSwearingen J**, Brach JS. Development of patient-centered cut-points for the figure-of-8-walk test of mobility in community-dwelling older adults. APTA Combined Sections Meeting 2020, Denver, Colorado, February 2020.
- Woods T, Williams B, Lowry KAL, **VanSwearingen JM**. Age-related decline of curved path walking: evidence for the loss of adaptability. Poster presentation for Des Moines University Research Symposium, Des Moines, Iowa, December 2019.
- Williams B, Woods T, Lang J, **VanSwearingen J**, Lowry K. Age-Related Differences In the Energy Cost of Walking While Thinking. Poster presentation at the International Society of Posture and Gait Research World Congress, Edinburgh, Scotland, June 2019.
- Coyle PC, Perera S, Albert SM, Freburger JK, **VanSwearingen JM**, Brach JS. Effects of "On the Move" group-exercise program on falls and healthcare utilization in older adults. American Physical Therapy Association, Combined Sections Meeting. Washington, DC. January 23-26, 2019.
- Nanjundeswaran C, **VanSwearingen J**. Body-system level cardiovascular conditioning and vocal fatigue. 11th International Conference on Voice Physiology and Biomechanics, East Lansing, MI, July 31, 2018
- Udina Argilaga C, Brach J, **VanSwearingen J**, Inzitari M. Assessment of the relationship between cognitive function and physical performance in older adults with challenging walk test: the Figure of 8 Walk Test (F8WT). European Geriatric Medicine Society Congress, Berlin, Germany, October 2018.
- Halevi Katz D, Weiss OS, Golan H, Banai K, **VanSwearingen J**, Shembel A, Krisciunas G, Verdolini Abbott

K. Treatment of exertion-induced paradoxical vocal fold motion (PVFM) using Buteyko Breathing Technique (BBT). American Speech and Hearing Association, Boston, MA, November 15, 2018.

- Woods T, Brandt A, Krajek A, Smiley-Oyen A, Lowry K, **VanSwearingen J**. The figure-of-8 walk test: early indicator of deficits in motor skill of walking for older adults with Parkinsons disease. APTA Combined Sections Meeting, New Orleans, LA, February, 2018.
- Coffman L, Perera S, **VanSwearingen JM**, Brach J. Characteristics of community-dwelling older adults who respond to a timing and coordination group exercise program. APTA Combined Sections Meeting, New Orleans, LA, February, 2018.
- VanSwearingen JM**, Smith CN, Coffman L, Perera S, Brach JS. Is neural control of walking important beyond gait speed? International Association of Gerontology and Geriatrics 2017 World Congress, San Francisco, CA, July 23-26, 2017
- Brach JS, Perera S, **VanSwearingen JM**, Gilmore S, Nadkarni N, Ricci E, Brodine D. Effectiveness of group exercise on mobility, function and disability: a cluster randomized trial. International Association of Gerontology and Geriatrics 2017 World Congress, San Francisco, CA, July 23-26, 2017
- Lowry KA, **VanSwearingen JM**. Neuromotor control, aging and everyday walking. International Association of Gerontology and Geriatrics 2017 World Congress, San Francisco, CA, July 23-26, 2017
- Nanjundeswaran C, **VanSwearingen J**. Differential effects of cardiovascular conditioning versus voice production exercise in a patient with vocal fatigue. The Voice Foundation Annual Symposium 2017, Philadelphia, PA, May31 -June 4, 2017
- Krajek, A., Bland, K., Woods, T., Lang, J., Lowry, K., **VanSwearingen, J**. The energy cost of walking while thinking. 2017 International Society of Posture & Gait World Congress, Fort Lauderdale, Florida, June 25-29, 2017.
- Almarwani M, **VanSwearingen JM**, Perera S, Sparto P, Brach JS. Low test-retest reliability of gait variability: an indicator of poor mobility and balance? International Association of Gerontology and Geriatrics 2017 World Congress, San Francisco, CA, July 23-26, 2017
- Lowry KA, **VanSwearingen J**. Neural correlates of the Figure-of-8 walk test. Iowa State University Neuroscience Research Day, Iowa State University, Ames, IA, September, 2016
- Almarwani M, **VanSwearingen JM**, Perera S, Sparto P, Brach JS. The effect of rhythmic auditory cueing on the spatial and temporal gait coordination at different walking speeds in healthy adults. Combined Sections Meeting 2017, APTA, San Antonio, February 2017.
- Almarwani M, **VanSwearingen JM**, Perera S, Sparto P, Brach JS. Gait variability across walking speeds in young and older adults. Combined Sections Meeting 2016, Anaheim, CA, February 2016.
- Nanjundeswaran C, **VanSwearingen J**, Verdolini Abbott K. Vocal Fatigue: Role of aerobic conditioning on metabolic cost & recovery from reading. American Speech and Hearing Association Annual meeting, Denver, CO, November 2015.
- Lowry KA, Farrington WJ, **VanSwearingen JM**. Thinking and walking while thinking outcomes of exercise interventions in older adults with age-related psychomotor slowing. Society for Neuroscience Annual Meeting, Chicago, IL, October 20, 2015.
- Brandt A, Atwood P, Farrington W, **VanSwearingen J**, Lowry K. The Figure-of-8 Walk Test: a clinical measure of motor skill in walking for persons with Parkinson's disease. Movement Disorders Society International Congress, San Diego, CA, June 2015.
- Hornyak V, **VanSwearingen J**. A new model of knowledge translation for physical therapy clinicians who work in skilled nursing facilities: a case study. American Geriatric Society Annual Meeting, Washington, DC, May 2015.
- Almarwani M, **VanSwearingen JM**, Perera S, Sparto PJ, Brach JS. The test-retest reliability of spatial and temporal gait variability during usual over-ground walking for young and older adults. University of Pittsburgh Aging Institute, Aging Research Day, Pittsburgh, PA, March, 2015
- Welch SA, Ward RE, Kurlinski K, Kiely K, Goldstein R, **VanSwearingen J**, Brach JS, Bean J. A comparison of curved and straight path walking among older adults: associations with fall-related outcomes. American Association of Physiatry Meeting, San Antonio, TX, March 2015.
- Lowry KA, **VanSwearingen J**. Thinking while walking: does type of cognitive domain matter? APTA

- VanSwearingen JM**, Motor skill training: coaching the brain in walking. CNS, Aging and Mobility Workshop [U13 Symposium], Gerontological Society of America 2014 Annual Meeting, Washington DC, November, 2014.
- Brach JS, Francois SJ, Perera S, **VanSwearingen JM**, Studenski SA. On the Move: Feasibility of a Group-based Motor Learning Exercise Program in Community-Dwelling Older Adults with Impaired Mobility. International Society for Gait and Posture Meeting, Vancouver, CA, June, 2014.
- Lowry KA, Perera S, **VanSwearingen J**. Gait rehabilitation: Does executive function status matter? International Society for Gait and Posture Meeting, Vancouver, CA, June, 2014.
- VanSwearingen J**, Lowry K, Rosano C, Brach J, Studenski S. Energy cost of walking: an indicator of the motor skill of walking. American Geriatric Society Annual Meeting, Orlando, FL, May 2014.
- Hornyak V, **VanSwearingen J**. Factor analysis of change in late life function and disability instrument scores. What Changes when the LLFDI changes? American Geriatric Society Annual Meeting, Orlando, FL, May 2014.
- Brach JS, Wert DM, Francois S, Studenski S, **VanSwearingen JM**. On the Move motor skill group exercise for older adults in senior residences. APTA Combined Sections Meeting 2014, Las Vegas, Nevada, February 3 – 6, 2014.
- VanSwearingen J**; Brach J; Perera S; Wert D; Lowry K; Studenski S. Neural circuits of walking: can intervention restore the preprogrammed step length rate ratio linked to minimization of the energy cost of walking? APTA Combined Sections Meeting 2014, Las Vegas, Nevada, February 3 – 6, 2014.
- Wert D, **VanSwearingen J**, Perera S, Brach J. Test-retest reliability of metabolic variables during overground walking in older adults with gait limitations. APTA Combined Sections Meeting 2014, Las Vegas, Nevada, February 3 – 6, 2014.
- Hornyak V, **VanSwearingen J**. Differences in mobility, aging expectations and confidence among older adults afraid of falling who restrict activities compared to those who do not restrict activities. APTA Combined Sections Meeting 2014, Las Vegas, Nevada, February 3 – 6, 2014.
- Lowry K, Bellanca J, Perera S, **VanSwearingen J**, Brach J. Gait smoothness during treadmill walking in Parkinson's disease. APTA Combined Sections Meeting 2014, Las Vegas, Nevada, February 3 – 6, 2014.
- Nadkarni NK, Perera S, Studenski SA, Rosano C, Aizenstein HJ, **VanSwearingen JM**. Callosal white matter hyperintensities and gait outcomes from two types of rehabilitation in older adults with mobility impairment. 6th International Society of Vascular Behavioural and Cognitive Disorders, Toronto, CA, June 2013.
- Hornyak V, **VanSwearingen JM**. Is gait intervention-related change in fear or confidence in walking related to change in function?" American Geriatrics Society Annual Meeting, Dallas, TX, May, 2013.
- Lowry K, Thompson L, Nasheim J, Kirk S, **VanSwearingen J**, Smiley-Oyen A. Dual-task walking: the impact of task complexity and domain. University of Pittsburgh Institute on Aging Celebration of Research Day, Pittsburgh, PA, April, 2013.
- Hornyak V, **VanSwearingen JM**, Wert DM, Brach JS. The relative role of falls, fear and cognition in physical function in older adults. APTA Combined Sections Meeting, San Diego, CA, Jan, 2013.
- Brach JS, **VanSwearingen JM**, Perera S, Lowry K, Studenski SA. Improving motor skill in walking: a randomized clinical trial. APTA Combined Sections Meeting, San Diego, CA, Jan, 2013.
- Wert DA, **VanSwearingen JM**, Perera S, Brach JS. Consistency of overground gait speed during longer bouts of walking in older adults. APTA Combined Sections Meeting, San Diego, CA, Jan, 2013.
- Lowry K, Thompson L, Nasheim J, Kirk S, **VanSwearingen J**, Smiley-Oyen A. Dual-task walking: the impact of complexity and cognitive domain. APTA Combined Sections Meeting, San Diego, CA, Jan, 2013.
- VanSwearingen JM**, Studenski SA, Lowry KA, Brach, JS. Mobility and physical function among older adults by patterns of gait variability. APTA Combined Sections Meeting, San Diego, CA, Jan, 2013.
- Nadkarni NK, Perera S, Studenski SA, Rosano C, Aizenstein HJ, **VanSwearingen JM**. Callosal white matter hyperintensities and gait outcomes from two types of rehabilitation in older adults with mobility

impairment. Gerontological Society of America Annual Meeting, San Diego, CA, Nov, 2012.

- Jette A, Latham N, Fitzgerald K, **VanSwearingen J**, Weinstein C. RCTs on disability intervention in physical therapy and rehabilitation: unique challenges and opportunities. APTA Combined Sections Meeting, Chicago, IL Feb 2012.
- Hile ES, **VanSwearingen J**, Perera S, Brach JS, Zickmund S, Studenski SA. Self-report of mobility decline over time is superior to repeated measures of current mobility in detecting performance decline. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Lowry K, Swanson K, Chatterjee S, Perera S, Brach J, **VanSwearingen J**, Smiley-Oyen A. Age-related differences in walking skill: the effect of narrow base walking. International Society for Gait and Posture Meeting, Norway, June, 2012.
- Hornyak V, **VanSwearingen JM**, Wert DL, Studenski SA, Brach JS. How do falls, fear and cognition influence the association between physical performance and self-reported function in older adults. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- VanSwearingen JM**, Perera S, Rosano C, Aizenstein HJ, Brach JS, Studenski SA. Brain grey matter volume of the putamen and clinical correlates of motor skill in walking. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Zaldana M, **VanSwearingen JM**, Studenski SA, Brach JS. Motor learning ability in walking relates to physical function in older adults. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Hibbs R, **VanSwearingen JM**, Studenski SA, Brach JS. Curved path walking predicts 12-month physical function in older adults without mobility limited physical function. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Sustakoski A, **VanSwearingen JM**, Perera S, Studenski SA, Brach JS. The impact of testing protocol on recorded gait speed. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Wert DM, **VanSwearingen JM**, Perera S, Brach JS. The influence of wearing a portable gas analysis metabolic measurement system on gait characteristics of older adults. International Society for Gait and Posture Meeting, Norway, June, 2012.
- Brach JS, **VanSwearingen JM**, Perera S, Wert D, Hornyak V, Studenski SA. Motor skill versus standard exercise in older adults with normal walking speed and gait inefficiency. American Geriatric Society Annual Meeting, Seattle, WA, May 2012.
- Brach JS, **VanSwearingen JM**, Wert DM, Lowry K, Perera S. Gait characteristics partially explain the underestimation of walking intensity in older adults but not in young adults. International Society for Gait and Posture Meeting, Norway, June, 2012.
- Huang WN, **VanSwearingen JM**, Perera S, Cham R, Studenski SA. Exercise effects on multitask walking: an RCT of the response of older adults with mobility limitations to two types of therapeutic exercise. APTA Combined Sections Meeting, Chicago, IL, Feb, 2012.
- Hibbs R, **VanSwearingen JM**, Brach JS. Curved path walking as an indicator of physical function in daily life. American Physical Therapy Association Annual Meeting – PT 2012, Tampa, FL, June, 2012.
- Huang WNW, **VanSwearingen JM**, Perera S, Cham R, Studenski SA. Effect of multi-tasking on gait: how do older adults with mobility limitations respond to the challenge? American Geriatric Society Annual Meeting, May 2011
- Lowry K, **VanSwearingen J**, Studenski S, Brach J. Smoothness of gait is associated with self-reported function after accounting for gait speed. American Geriatric Society Annual Meeting, May 2011.
- VanSwearingen J**, Brach J, Perera S, Studenski S. Perceived exertion is associated with daily physical activity after accounting for walking capacity. American Geriatric Society Annual Meeting, May 2011.
- Brach J, **VanSwearingen J**, Perera S, Studenski S. Step width variability predicts a decline in daily activity. American Geriatric Society Annual Meeting, May 2011.
- Julius L, Brach JS, Wert DM, **VanSwearingen JM**. Measuring mobility fatigability in older adults with difficulty walking. American Geriatric Society Annual Meeting, May 2011.
- Wert DM, Brach JS, **VanSwearingen JM**. The energy cost of walking savings of improving gait biomechanics in older adults with mobility disability. American Physical Therapy Association Combined

Sections Meeting, 2011.

- Hornyak V, Brach JS, **VanSwearingen J**. Informing fall and fear reduction interventions: gait, physical and cognitive function and white matter disease by falls and fear of falling status. American Physical Therapy Association Combined Sections Meeting, 2011.
- VanSwearingen JM**, Brach JS, Wert D. Change in physical function and functional limitations in older adults with mobility disability: influence of change in self-efficacy. American Geriatric Society Annual Meeting, Orlando, FL, May 2010.
- Wert D, Brach JS, **VanSwearingen JM**. Does a change in energy cost of walking relate to functional changes in older adults? American Geriatric Society Annual Meeting, Orlando, FL, May 2010.
- Brach JS, **VanSwearingen JM**, Wert D, Perera S, Chan R, Studenski SA. The impact of fear and confidence on smoothness of walking. American Geriatric Society Annual Meeting, Orlando, FL, May 2010.
- Conti R, Brach J, Wert D, **VanSwearingen JM**. Self-reported mobility and physical function: responsiveness to intervention-related change in older adults with mobility disability. American Geriatric Society Annual Meeting, Orlando, FL, May 2010.
- Dunlap P, Perera S, **VanSwearingen J**, Wert D, Brach JS. Transitioning to a narrow path: the impact of fear of falling in older adults. American Geriatric Society Annual Meeting, Orlando, FL, May 2010.
- Hile ES, Zickmund S, **VanSwearingen J**, Wert D, Brach JS, Studenski SA. Perspectives on mobility and balance among older adults. American Geriatric Society Annual Meeting, May 2010.
- Hoerner RW, III, Brach JS, Wert DW, **VanSwearingen JM**. Is usual gait speed and indicator of the motor learning ability of older adults? American Geriatric Society Annual Meeting, May 2010
- VanSwearingen JM**, Perera S, Rosano C, Aizenstein HJ, Brach JS, Studenski SA. Brain burden influence on outcomes of interventions to improve gait in older adults with mobility disability: a randomized clinical trial. 3<sup>rd</sup> International Congress on Gait & Mental Function 2010, Washington DC, Feb 2010
- VanSwearingen JM**, Rosano C, Aizenstein HJ, Perera S, Studenski SA. Brain imaging and clinical manifestations of subsyndromal gait and cognitive problems in older adults. 3<sup>rd</sup> International Congress on Gait & Mental Function 2010, Washington DC, Feb 2010.
- Brach JS, **VanSwearingen JM**, Wert D, Studenski SA. Gait variability during curved path walking in young and old. 3<sup>rd</sup> International Congress on Gait & Mental Function 2010, Washington DC, Feb 2010.
- Hoerner RW, III, Wert DW, Brach JS, **VanSwearingen JM**. Backward walking as an indicator of motor learning in the older adults. 3<sup>rd</sup> International Congress on Gait & Mental Function 2010, Washington DC, Feb 2010.
- Brach JS, **VanSwearingen JM**, Hornyak V, Hile E, Studenski S. Exploring the role of step width variability in mobility and physical function. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
- Hile ES, Brach JS, Perera S, Wert DM, **VanSwearingen JM**, Studenski SA. Influence of light support on tandem stance in community-dwelling older adults. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
- Wert DW, Brach JS, **VanSwearingen JM**. Meaningful change and responsiveness of psychological outcomes of falling in older adults. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
- VanSwearingen JM**, Brach JS, Perera S, Wert D, Hile ES, Studenski SA. A randomized trial of gait interventions: effect on confidence, fear, activity and function in older adults with mobility disability. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
- Robertson JA, **VanSwearingen JM**, Wert D, Hile E, Studenski SA, Brach JS. Association of executive function domains with curved and straight path walking. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Brach J, McGurl D, Wert D, **VanSwearingen J**, Perera S, Cham R, Studenski S. Validation of a measure of smoothness of walking. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Hess RJ, **VanSwearingen JM**, Wert D, Hile E, Studenski SA, Brach JS. Expectations of aging and mobility

in community-dwelling older adults. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.

- Brach JS, Wert D, **VanSwearingen JM**, Studenski S. The compendium of physical activities underestimates walking intensity in old more so than in young. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Coley FB, Lenze EJ, Perera S, **VanSwearingen JM**, Studenski SA, Cham R. Fear of falling, its psychological components and slip-warning induced gait adaptations in older adults with mild mobility impairments. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Hile E, Perera S, McGurl D, Wert D, Brach J, **VanSwearingen J**, Studenski S. Measuring self-perceived change in mobility and balance. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Wert DM, Brach JS, **VanSwearingen J**. Energy cost of walking contributes to physical function in older adults. Am Geriatric Soc Annual Meeting, Chicago, IL, May 2009.
- Faulkner KA, Strotmeyer ES, Zivkovic S, Verghese J, Van Swearingen J, Studenski SA, Cauley JA. Poor peripheral sensorimotor nerve function is associated with high fall risk. Am Soc Bone Muscle Res, 2008.
- Wert D, Talkowski JB, **VanSwearingen JM**, Brach JS. Treadmill walking and stance time variability in community dwelling older adults. APTA Annual Meeting, San Antonio TX, June 2008.
- Wert D, **VanSwearingen JM**, Brach JS. Measuring mean  $vo_2$  during steady state in older adults. Am Geriatric Soc Annual Meeting, Washington DC, May 2008
- VanSwearingen JM**, Perera S, Brach JS, Hile E, Talkowski JB, Huang W, Wert D, Studenski SA. An RCT to improve the energy cost of walking. Am Geriatric Soc Annual Meeting, Washington DC, May 2008
- VanSwearingen JM**, Brach JS, Perera S, Hile E, Talkowski J, Huang W, Wert D, Studenski SA. An RCT to improve motor control in walking among older adults with step length variability. Am Geriatric Soc Annual Meeting, Washington DC, May 2008
- Brach JS, **VanSwearingen JM**, Perera S, Studenski S. Improvements in gait biomechanics and stance time variability. Am Geriatric Soc Annual Meeting, Washington DC, May 2008
- Deborah JA, Pradhan S, Delitto A, **VanSwearingen J**. Energy cost of abnormal walking for individuals with mild to moderate parkinson's disease. APTA Combined Sections Meeting, Memphis, TN, Feb 2008.
- Talkowski JB, Wert D, **VanSwearingen J**, Brach JS. Validation of the Late Life Function and Disability Index (LLFDI) and Gait Efficacy Scale (GES) with performance based measures of function and mobility in older adults. APTA Combined Sections Meeting, Memphis, TN, Feb 2008.
- Sparto PJ, Aizenstein HJ, **VanSwearingen JM**, Furman JM, Redfern MS. Delays in voluntary step initiation are related to increased volume of white matter hyperintensities in older adults. International Society of Gait and Rehabilitation, Vermont, July, 2007.
- VanSwearingen J**, Brach J, Studenski S. Energy cost of abnormal walking. American Geriatric Society Annual Meeting, Seattle, WA, May 2007
- Wert D, Talkowski J, Brach J, **VanSwearingen J**. Characteristics of walking, physical activity, fear of falling and falls in community dwelling older adults based on residence. Am Geriatric Society Annual Meeting, Seattle, WA, May 2007
- Brach JS, **VanSwearingen JM**, Talkowski JB, Studenski SA. Sensory impairments and step width variability. American Geriatric Society Annual Meeting, Seattle, WA, May 2007
- Brach JS, Studenski SA, Perera, S, **VanSwearingen JM**, Newman AB. Values of stance time variability related to mobility disability. Combined Sections Meeting, American Physical Therapy Association, Boston, MA, Feb 2007.
- Huang, WNW, **VanSwearingen J**, Perera S, Brach J, Studenski S. Classifying gait patterns of older adults by movement control and biomechanical factors: validation by gait and physical performance measures. Combined Sections Meeting, American Physical Therapy Association, Boston, MA, Feb 2007.
- Josbeno D, Pradhan S, **VanSwearingen J**, Carvell GE, Delitto A. Lower and upper extremity task performance and physical function in individuals with parkinson's disease. Combined Sections Meeting, American Physical Therapy Association, Boston, MA, Feb 2007.
- Rogers CR, Schmidt KL, **VanSwearingen JM**, Manders EK, Deleyiannis FWB. Automated Facial Image Analysis: Detecting improvement after botulinum toxin a for abnormal facial muscle

activity. Northeastern Society of Plastic Surgery Annual Meeting, Boston, MA, Dec. 1, 2006.

- Rogers CR, Schmidt KL, **VanSwearingen JM**, Manders EK, Deyeliannis FW-B. Automated facial image analysis: detecting change after botulinum toxin a for abnormal facial muscle activity. Clinical and Translational Science Day, University of Pittsburgh, Pittsburgh, PA, May 22, 2006.
- Berlin J, Brach J, Studenski S, **VanSwearingen J**. Fall history, fear of falling and physical activity in older adults. American Geriatric Society Annual Meeting, Chicago, IL, May 2006.
- Huang WNW, **VanSwearingen J**, Perera S, Brach J, Studenski S. recognizing gait patterns of older adults by observation: development of a gait classification system. American Geriatric Society Annual Meeting, Chicago, IL, May 2006.
- VanSwearingen J**, Brach J, Berlin J, Hile E, Perera S, Studenski S. Gait efficiency: validating an integrative measure of mobility ability. American Geriatric Society Annual Meeting, Chicago, IL, May 2006.
- Brach J, Studenski S, Perera S, **VanSwearingen J**, Newman A. Stance time variability predicts incident walking disability independent of gait speed. American Geriatric Society Annual Meeting, Chicago, IL, May 2006.
- Cham R, Lenze EJ, Studenski SA, Perera S, **VanSwearingen J**. Fear of falling: psychological and gait constructs. Gerontological Society of America Annual Meeting, Washington, DC, November, 2005.
- VanSwearingen JM**, Brach JS, Studenski SA, Hile E, Berlin J, Rao G. Skill-based gait intervention for older adults with progressive walking disability: a pilot clinical trial. American Geriatric Society Annual Meeting, Orlando, FLA, May 2005
- Brach JS, Berlin J, **VanSwearingen JM**, Newman AB, Studenski SA. Extreme step width variability is related to a positive fall history. American Geriatrics Society Annual Meeting, Orlando FLA, May 2005.
- Brach JS, **VanSwearingen JM**, Hile E, Studenski SA. Assessment of gait variability in older adults. Combined Sections Meeting, American Physical Therapy Association, New Orleans, LA, Feb 2005.
- VanSwearingen JM**, Brach JS, Hicks G. Reliability of performance-based measures of impairment and disability in women with osteoarthritis of the knee. American Physical Therapy Association Annual Meeting, Washington DC, June, 2003.
- VanSwearingen JM**, Brach JS, Hicks G. Relation of Pathology, Impairment, and Disability in Women with Osteoarthritis of the Knee. American Physical Therapy Association Annual Meeting, Washington DC, June, 2003.
- Wachtman GS, Cohn JF, Schmidt KL, Liu Y, Henkelmann T, **VanSwearingen JM**, Manders EK. Measurement of asymmetry in persons with facial paralysis. Royal Ivy Society of Plastic and Reconstructive Surgeons, Meeting, June 2002.
- VanSwearingen, JM**. Measuring physical function in community-dwelling older adults. American Physical Therapy Association Annual Meeting, Cincinnati, OH, June, 2002.
- Brach JS, **VanSwearingen JM**. Identifying early decline of physical function in community-dwelling older adults: Performance-based and self-report measures. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, February, 2001.
- VanSwearingen JM**, Brach JS. Measuring exercise tolerance for the physical demands of daily activities among community-dwelling frail older adults. American Physical Therapy Association Meeting, Indianapolis, IN, June, 2000.
- Ting J, Wachtman G, Cohn J, **VanSwearingen J**, Manders E. analyzing the effects of botulinum toxin in the treatment of facial synkinesis. American Society of Plastic and Reconstructive Surgeons, Seattle, WA, May, 2000.
- Manders E, Holland SW, Champagne L, **VanSwearingen J**. Winking and blinking: take a second look. American Society of Plastic and Reconstructive Surgeons, Seattle, WA, May, 2000.
- Manders E, **VanSwearingen**, Cohn J, Wachtman G. Automated tracking of facial features in patients with facial neuromuscular dysfunction. American Society of Plastic and Reconstructive Surgeons, Seattle, WA, May, 2000.
- Manders E, Zewert T, Rossie M, **VanSwearingen J**. Gold weight insertion to assist eyelid closure reduces



synkinesis during recovery from facial palsy. American Society of Plastic and Reconstructive Surgeons, Seattle, WA, May, 2000.

- VanSwearingen JM**, Brach JS. Changes in facial movement and synkinesis with neuromuscular reeducation: support for neuroplasticity? Combined Sections, Meeting APTA, New Orleans, LA, Feb. 2000
- Brach JS, **VanSwearingen JM**, Newman AB, Kriska AM. Quadricep muscle activity in a sit-to-stand-to-sit task in community-dwelling older adults. Combined Sections Meeting, APTA, New Orleans, LA, Feb 1999.
- Wachtman GS, Cohn JF, **VanSwearingen JM**, Manders EK. Pixel-wise tracking of facial movement by computer image processing. Plastic Surgery Research Council, Pittsburgh, PA, May 1999.
- VanSwearingen JM**, Berry MJ, Brach JS. Assessing the responsiveness of the facial disability index to clinical change: is the patient better? Combined Sections Meeting, American Physical Therapy Association, Seattle WA, Feb, 1999.
- Brach JS, **VanSwearingen JM**. Predicting functional status from impairment and disability in community-dwelling frail older adults. Combined Sections Meeting, American Physical Therapy Association, Seattle WA, Feb, 1999.
- VanSwearingen JM**. Facial neuromotor disorders: recovery of movement in a uniquely motor system. Neuroplasticity Research Retreat, Section on Research, APTA, Newport Rhode Island, August 15-20, 1998.
- Brach JS, **VanSwearingen JM**, Manders E. Surface electromyography: an early indicator of recovery after facial reanimation surgery. Twelfth International Society of Electrophysiology and Kinesiology Congress, Montreal, CA, June, 1998.
- Pennock J, **VanSwearingen JM**, Johnson P. Raising eyebrows: relationship between muscle activity and displacement. Twelfth International Society of Electrophysiology and Kinesiology Congress, Montreal, CA, June, 1998.
- VanSwearingen JM**, Barry MJ, Brach JS, Manders E. Examining the myth of the smile muscle. 41<sup>st</sup> Annual Meeting of the Ohio Valley Society for Plastic and Reconstructive Surgery, Farmington, PA, June 1998.
- Brach JS, Pennock JD, **VanSwearingen JM**, Manders EK. Physical therapy and botulinum toxin as a treatment for facial nerve disorders: a case study. 41<sup>st</sup> Annual Meeting of the Ohio Valley Society for Plastic and Reconstructive Surgery, Farmington, PA, June 1998.
- VanSwearingen JM**, Brach JS. Writer's Cramp to cursive, neuromuscular reeducation in the treatment of focal dystonia: a case report. APTA Annual Meeting, Orlando, FL, June, 1998.
- Barry MJ, **VanSwearingen JM**, Albright AL. Reliability and validity of the Barry-Albright dystonia scale. APTA Annual Meeting, Orlando, FL, June, 1998.
- Brach JS, **VanSwearingen JM**. Not all facial paralysis is bell's palsy, making the right diagnosis: a case study. APTA Combined Sections Meeting, Boston, MA, February, 1998.
- Brach JS, **VanSwearingen JM**. Outcome of facial rehabilitation for individuals with chronic facial muscle weakness. APTA Annual Meeting, San Diego, CA, June, 1997.
- VanSwearingen JM**, Cohn J, Turnbull J, Mrzai T, Johnson P. Psychological distress: a factor linking impairment with disability in facial neuromotor disorders. APTA Annual Meeting, San Diego, CA, June, 1997.
- VanSwearingen JM**, Brach JS. The facial disability index: reliability and validity of a disability assessment instrument for disorders of the facial neuromuscular system. APTA Combined Sections Meeting, Dallas, TX, February, 1997.
- Bajaj-Luthra A, **VanSwearingen J**, Johnson PC. Depression and regional facial impairment and disability in facial neuromuscular disorders. Plastic Surgery Research Council, Dallas, TX, February, 1997.
- Farrell MK, **VanSwearingen JM**, Brach JS, Probst C. Motor slowness and aging. APTA Combined Sections Meeting, Dallas, TX, February, 1997.
- VanSwearingen JM**, Paschal KP. The relationship between fitness and clinical measures of physical performance among community-dwelling, frail older veterans. APTA Annual Meeting, Minneapolis, MN, June 1996.

- Brach JS, **VanSwearingen JM**. Treatment-based classification for individuals with facial neuromuscular dysfunction. North American Facial Therapist Study Group, Canadian Acoustic Neuroma Association Meeting, Vancouver, BC, May 29-30, 1996.
- VanSwearingen J**, Brach JS. Neuropsychology of facial expression and implications for facial rehabilitation. North American Facial Therapist Study Group, Canadian Acoustic Neuroma Association Meeting, Vancouver, BC, May 29-30, 1996.
- Brach JS, **VanSwearingen JM**, Johnson PC. Facial neuromuscular retraining for oral synkinesis. American Society for Peripheral Nerve, Montreal, Canada, October 5-6, 1995.
- VanSwearingen JM**, Paschal, KA. Assessing fall risk of community-dwelling frail older veterans using specific test of mobility and the physical performance test of function. WCPT Annual Conference, Washington, DC, June, 1995.
- Cooper T, McMahon B, Lenert J, Mueller T, **VanSwearingen J**, Brach JS, Kirchner C, Johnson PC. Cross facial nerve grafting for facial animation: effect on normal hemifacial motion. Plastic Surgery Research Council, New York, May 1995.
- Brach JS, **VanSwearingen JM**, Delitto A, Johnson PC. Impairment and disability in individuals with facial neuromuscular dysfunction. APTA Combined Sections Meeting, Reno, NV, February, 1995.
- Faub JE, **VanSwearingen JM**. Delitto A, Hagberg J. Cardiovascular endurance and physical function of community-dwelling frail older veterans. APTA Combined Sections Meeting, Reno, NV, February, 1995.
- Bianco AJ, **VanSwearingen JM**, Burdett, RG. Isometric lift-task testing as a component of pre-employment screening. APTA Combined Sections Meeting, Reno, NV, February 1995.
- VanSwearingen JM**, Paschal KA, Bonino P. Screening for functional performance and fall risk among older men. Gerontological Society of America, Atlanta, GA, November 1994.
- Sokol J, **VanSwearingen JM**. Measuring Fatigue related to facial muscle function. CPA/APTA Annual Conference, Toronto, Ontario, June, 1994.
- VanSwearingen JM**, Paschal KA. The Modified Gait Abnormality Rating Scale (GARS-M) distinguishes between fallers and nonfallers among community-dwelling, Frail older veterans. Combined Sections Meeting, APTA, New Orleans, LA, February 1994.
- Paschal KA, **VanSwearingen JM**. The relationship between the Modified Gait Abnormality Rating Scale (GARS-M) and gait characteristics of community-dwelling, frail older veterans. Combined Sections Meeting APTA, New Orleans, LA, February 1994.
- VanSwearingen JM**, Paschal KA. Reliability of the Modified Gait Abnormality Rating Scale. Pennsylvania Physical Therapy Association Annual Meeting, Sevens Springs, PA, October 1993.
- Loman C, **VanSwearingen JM**. Using a physical performance test to evaluate the older adult with osteoporosis. Combined Sections Meeting, San Antonio, TX 1993.
- Fu LL, **VanSwearingen JM**. Balance performance and step width before and after balance training in health elderly women. Combined Sections Meeting, San Antonio, TX 1993.
- VanSwearingen JM**, Paschal KA, Bonino PD. Screening and consultation: the role of the physical therapist in a geriatric evaluation and management Project. PPTA Annual Conference, Philadelphia, PA., November, 1992.
- VanSwearingen J**, Lance-Jones C. Temporal factors in the development of the pattern of muscles and muscle fiber types in the avian hindlimb. Society for Neuroscience Annual Meeting, Anaheim, CA, 1992.
- VanSwearingen J**, Lance-Jones C. Fate of early and late migrating muscle cell precursors in the avian limb. Fourth International Conference on Limb Development & Regeneration, Pacific Grove, CA, July, 1992.
- VanSwearingen JM**, Paschal KA. Changes in parameters of cardiovascular function in older women with exercise training. Combined Sections Meeting in San Francisco, CA, 1992.
- D'Achille RS, **VanSwearingen JM**, Janosky, J. Factors effecting response rates of non-institutionalized elderly individuals to mail surveys. APTA Annual Meeting, Boston, MA, June, 1991.
- VanSwearingen JM**, Lance-Jones C. Factors influencing the early development of muscle fiber type patterns in the limb. APTA Annual Conference, June, 1990.
- Ostrosky K, **VanSwearingen JM**, Burdett R. Comparison of active range of motion during free-speed gait in younger and older Persons. APTA Annual Conference, Anaheim, CA, June, 1990.

**VanSwearingen JM**, Paschal KA. Influence of group exercise on the flexibility of older adults. APTA Combined Sections Meeting, New Orleans, LA, February, 1990.

Medlin KM, **VanSwearingen JM**, Burdett R, Carvell GE, Furman JM, Redfern M. Temporal sequence of muscle activity during transition from double to single limb support. APTA Combined Sections, New Orleans, February 1990.

**VanSwearingen JM**. Measuring external rotation in varying degrees of shoulder abduction. APTA Annual Conference, Las Vegas, NV, 1988

**VanSwearingen JM**, Burdett RG. Reliability of isokinetic endurance tests. Research Symposium in Allied Health, Columbus, Ohio, September, 1986.

**VanSwearingen JM**. Clinical objective measurement of wrist muscle strength: the handheld dynamometer. Pennsylvania Physical Therapy Association Annual Conference, November, 1985.

**VanSwearingen JM**. A System for matching physical therapy students to clinical affiliations. American Physical Therapy Association Annual Conference, June, 1985.

**VanSwearingen JM**. Measuring Wrist Muscle Strength. Pennsylvania Physical Therapy Association Conference, May, 1982.

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## PROFESSIONAL ACTIVITIES

### TEACHING:

Physical Therapy Curriculum, Entry-level Professional:

- 1983-1984     **Therapeutic Exercise I** 60 students; lab assistant, assisted instructor in laboratory experiences in physical therapy assessment and intervention
- 1983-1986     **Clinical Education I, II, III and IV** 60-73 students; implemented all phases of clinical instruction of physical therapy students; developed with consultant, computerized system for matching students to affiliation; initiated continuing education clinical sites at faculty site visits
- 1984-1985     **Introduction to Physical Therapy and Patient** 60-70 students; lecture and laboratory instruction in basic physical therapy procedures
- 1984-1986     **Introduction to Research** 60 students; overview of types of research, methods of review, critical reading, use research "into practice"; the intent to prepare students to become scholarly clinicians
- 1985-1987     **Human Anatomy.** 95-110 students; lecture and lab assistant /coordinator; basic human anatomy with greater emphasis on neuro-musculoskeletal peripheral anatomy; involved extensive cadaver laboratory experience with pro-sected specimens and clinical correlations
- 1986-present   **Introduction to Neuroscience**, co-instructor 40-110 students: 1986 to about 1992 physical and occupational therapy, 1993- present, physical therapy, 60-70; lecture and laboratory emphasis on systems-approach to movement control and dysfunction; lecture in development, neural transmission, special senses, neuroendocrine and limbic system function; coordinator for lab - external and internal morphology brain specimens

- 1986-present **Guest Lectures** 40-75 students; lecture topics: clinical rounds, Musculoskeletal Aging, Neuroanatomy, Classification, Muscle Physiology; Energy Metabolism, Geriatric Assessment, Development, Research Methods, Feldenkrais Approach
- 1989-present **Clinical Electrophysiology** 40-72 students; responsibility for lectures and laborator; strong emphasis on integration of anatomy and neuroscience background rationale for interventions; recent related research reports used to promote evidenced-based practice
- 1995-present **Geriatric Physical Therapy**, 1995-2002, 8-12 students; 2003-present, 50-70 students; co-ordinate define content, lecture cardiopulmonary, dementia, musculoskeletal changes, physical function, mobility intervention, falls assessment; participate in experiential learning
- 1995-2001 **Coordinator, Basic Sciences component of Physical Therapy curriculum** oversee content and format, expectations for students, fit with curriculum objectives: Human Anatomy, Survey of Human Diseases, Introduction to Neurosciences, Clinical Electrophysiology, and Cardiopulmonary Physical Therapy
- 1997-2002 **Cardiopulmonary Physical Therapy** coordinate development of revised content in fundamentals of cardiopulmonary function for performance in healthy and non-healthy populations; recruited instructor, defined lecture content, selection of resources and experiences and evaluations

Physical Therapy Curriculum, Post-Professional:

- 1986-1988 **Advanced Kinesiology** 20 students; Lectures and discussions structure and function musculoskeletal system for experienced therapists: osteo-kinematics, arthrokinematics, kinetics & physiology of human movement
- 1987-2001 **Selected Topics in Anatomy** 2-6 students, 2-3 terms a year; provided the materials and resources - small cadaver dissection laboratory, guided and assisted students in regional anatomy dissections
- 1988-1994 **Geriatric Physical Therapy Seminar** 3-10 students; coordinated and guided a “journal-club” format of structured review, presentation and discussion of selected research reports recent peer-review literature
- 1988-1996 **Geriatric Physical Therapy I** 3-10 students; lectures and discussions of age-related changes in bodily systems and impact on assessment and intervention in physical therapy
- 1989-1996 **Geriatric Physical Therapy II** 3-10 students; lectures and discussions of settings, organization, assessment tools and adjunct skills for improving the delivery of physical therapy for the older adult
- 1991-1995 **Geriatric Clinical Decision Making** 3-6 students; coordinated lectures integrated with clinical projects for experiences in clinical decisions
- 1992-1996 **Advanced Musculoskeletal Sciences** 20 students; guest lecturer on the development of the pattern of muscle; and cellular and tissue structure and function of connective tissues
- 1996-present **Guest Lectures**, 6-20 students; provided lectures in physical therapy, communication sciences and occupational therapy courses on topics such as: facial neuromuscular reeducation, neurophysiology of expression, surface-EMG, physical performance-based

geriatric assessment

- 1997-present **Analysis Of Neuromuscular Signs And Symptoms In Clinical Decision-Making** 12-20; 50-60 students since 2009; process and knowledge to identify neuroanatomical basis of disorders; case-solving format; intent differentiate clusters of signs and symptoms for clinical decisions.
- 2010-present **Fundamentals of Neuroscience for the Orthopedic Clinician** 30-40 students in lecture; 50-70 students in the laboratory; advanced neuroscience applicable to clinical assessment and practice; emphasis on relate principles of neural science to related movement dysfunction.
- 2015 **HRS 3003 Core Concepts in Disability & Rehabilitation 1** 12-16 doctoral students; co-course instructor; lectures and discussion; project evaluations

Other Post-Professional Health Science Curriculums:

- 1986-1988 **Histology School of Medicine**, 145 students, teaching assistant and lecturer: coordinated biweekly labs, overview tissue sections; lectured on histology of connective tissues
- 1987 **Medical Embryology School of Medicine**, 145 students; development structure and function of the human urogenital system
- 1987-1989 **Interdisciplinary Management of Health Care for Older Adults** - team taught (entry-level and post-professional health science students, approx. 25-35) participated in planning, lectured and served as a faculty resource
- 1988-2006 **Guest lecturer School of Nursing**, 30-40 students; topics: Exercise and Aging; Physical Activity Health and Cardiovascular Disease; Neuro-biology of neurotransmitters, neuroendocrine and limbic system
- 1993-present **Guest Lecturer Graduate School of Public Health**, Department of Epidemiology 20 students; lectured on topics of Biology of Aging - Connective Tissue; Nervous System, physiologic and performance change
- 1997-2006 **Guest Moderator (School of Medicine)**, approx 10-15 MD/ PhD students; invited moderator; selected paper, students present, faculty led discussion
- 1997-2006 **Guest Lecturer School of Medicine**, approx 145 students; biomechanics of the musculoskeletal system; clinical perspective of movement and function

**OTHER TEACHING ACTIVITY:**

Service on PhD student thesis committees

Jennifer Brach	1999-2003
Wennie Huang	2003-2006 (Chair)
Jamie (Berlin) Talkowski	2006-2009
Elizabeth Hile	2005-2010 (Chair)
Brooke Coley	2005-2009

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David Wert	2007-2011
Chaya Nanjundeswaran	2007-2013
Aaron Ziegler	2009-2014
Maha Almarwani	2010-2016
Adrianna Shembel	2015-2017
Pritika Dasgupta	2017-2021
Valerie Shuman	2020-
Anisha Suri	2020-

Service on post-doctoral trainee committees

Rob Martin	2003-2004
Todd Henklemann	2004-2006
Karen Schmidt	2003-2008
Wennie Huang	2006-2007
David Wert	2012-2013
Kristin Lowry	2010-2014
Victoria Hornyak	2011-2015
Andrea Rosso	2014
Neelesh Nadkarni	2013-2015
Caitlin Tighe	2020-

Supervision of undergraduate student research

Rebecca Hess	2005-2007 BPhil
Laura Kummerle	2013-2015 BPhil

Supervision of predoctoral student research

Carolyn Rogers	2005-2006
Alaina Newall	2010-2012
Leslie Julius	2010-2012
Rebecca Hess	2007-2010
Rachel Hibbs	2011-2013
Ryan Conti	2009-2011
Ralph Hoerner	2009-2011
Natalie Novak	2013-2015

(number of master of science degree students, 1985-1996)

**RESEARCH:**

Active Grant Funding

R01AG071520 (Brach) 4/1/2021-3/31/2026 1.0 calendar months  
NIH/NIA

Effectiveness of the On the Move group exercise program to improve mobility in community-dwelling older adults

Using a cluster-randomized trial, we will test the effectiveness of OTM in terms of improving mobility among 502 older adults in 44 senior community centers (Aim 1) and evaluate intervention fidelity, including adherence and competence, and the impact of organizational, instructor, and participant level factors on intervention fidelity (Aim 2). We will also determine the extent to which intervention fidelity moderates the

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effectiveness of OTM (Aim 3). This study is significant in that it addresses walking limitations, a common and costly problem for older adults and it transitions a clinical exercise program to the community.

1 R01 AG057671-01A1: (Rosso, PI) 06/01/2018-05/31/2021 1.0 calendar months  
NIA

(VanSwearingen, Co-I, role: conceptual basis for motor skill intervention; train the interventionist, integrity of intervention quarterly observations and records review, interpretation of findings)

Restoring Central Motor Control to Improve Community Mobility of Older Adults. Motor skill training therapy aims to improve the brain's control of walking and can improve clinic-based measures of walking in older adults. We will test the effects of 12-week motor skill training on measures of community mobility of older adults and assess the mechanisms through improved motor control at the level of the brain.

1 R01 AG041745-01R01 (Brach PI) 07/01/15-05/31/21 1.5 calendar months  
NIA

(VanSwearingen, Co-I, role conceptual basis; train the intervention trainers; oversee manual of operations development, intervention integrity quarterly observation and records review, interpretation of findings)

Task-specific timing and coordination exercise to improve mobility in older adults.

A RCT to compare the effects of a 12 week motor learning exercise to an standard impairment-based exercise program to improve walking and physical function in daily life in older adults with mobility limitations.

R15 DC017014-01(Nanjundeswaran, PI) 07/01/2019-03/31/2021 [no cost ext] 1.0 calendar months  
NIDCD

(VanSwearingen Co-I, design of conditioning exercise and physiological testing of vocal performance; consultation and interpretation of physiology of voice measures)

Cardiovascular Conditioning and Treatment of Vocal Fatigue: an RCT. A novel project to implement cardiovascular conditioning to alleviate symptoms of vocal fatigue and increase vocal endurance in teachers with vocal fatigue disorder

#### Previously funded/ completed grant funding

PCORI Project: 6301(Brach, PI) 10/01/14-09/30/17 2.4 calendar months  
(VanSwearingen Co-I, role conceptual basis; testing & intervention training, integrity, interpretation of findings)

Title: On the Move: Optimizing Participation in Group Exercise to Prevent Walking Difficulty in At-risk Older Adults

Patient Centered Outcomes Research Institute

Compare the effects of a 12-week On the Move (OTM) group exercise program to a standard program on self-reported function and disability and walking ability in a single-blinded cluster randomized trial in 560 older adults from 28 independent living facilities, community centers, and senior apartments (low income).

1 R01 HS022889-01A1 (Matthews, PI) 09/30/14-09/29/19 0.30 calendar months  
(VanSwearingen, Co-I, role in physical function and mobility measures description and healthcare scripts)

Title: Self-management via Health Kiosk by Community-residing Older Adults

Agency for Healthcare Research and Quality

This project will study older adults' views, motivations, and patterns of use of an adaptive, community-based, multi-user health kiosk over 18 months of study participation. The goal is to understand how and why older adults use a health kiosk to live a healthier lifestyle and monitor and manage selected chronic conditions.

P30 AG024827 (VanSwearingen, PI) 01/2016-12/2017  
(role: development of protocol, oversee all, recruit, enroll, coordinate imaging, signal processing and clinical data investigators, reporting)  
Title: Neuroimaging Motor Skill, Learning and Adaption for Walking (Pilot)  
National Institute of Aging [Older Americans Independence / Pittsburgh Pepper Center, Pilot project funding]  
Use neuroimaging to assess the neural circuitry underlying motor skill and efficiency in walking before and after a task-oriented motor learning exercise intervention demonstrated to improve walking efficiency using fMRI and functional connectivity analyses and the functional neural circuitry during challenged walking tasks using fNIRS. (no salary support \$24,020)

Drummond Foundation Medical Grant [Canadian]:(Mackey, PI; Simon Fraser University, British Columbia, Canada) 2013-2015; continued 2015-2018  
(VanSwearingen JM, consultant for timing and coordination exercise intervention training of staff, and preparation and review of research report of findings)  
Title: HealthySteps: A Pilot Randomized Controlled Trial to Improve Walking Energetics, Fatigue and Activity in Older Adults with Mobility Limitations.  
A community-based, group exercise RCT of motor learning based, timing and coordination and aerobic walking exercise interventions to improve walking energetics, fatigue and activity in older adults.  
[consultant, unpaid]

P30 AG024827 Pittsburgh Older Americans Independence Center supported pilot study funding:  
(VanSwearingen PI) 06/01/12 – 05/31/13  
Title: Neural adaption: motor learning induced changes in functional brain networks.  
Used fMRI, to define the neural circuitry and examine the changes in brain regional activity during motor sequence learning of a finger and foot tapping sequence. Expected shift from an initial, inefficient pattern of high activity in a domain-general cortico-cortico network to a more efficient pattern of activity in a domain-specific cortico-striatal network after learning. Comparison with similar methodology used fNIRS to define changes in the pattern of cortical brain activation with motor sequence learning for foot tapping (lying in MRI and standing, not in scanner) and backward stepping tasks (not in scanner).(no salary support, \$23,030)

P30 AG024827 Pittsburgh Older Americans Independence Center supported pilot study funding:  
(VanSwearingen, PI) 09/01/10-8/31/12  
Title: Benefits of two types of therapeutic exercise on gait and cognition.  
Define the impact of physical therapist supervised, moderate intensity aerobic and motor skill gait exercise, 2 times per week for 12 weeks on thinking while walking. Designed novel thinking while walking methods to test cognitive function (flanker, go-no go, n-back and updating tasks) while walking while also recording walking speed and smoothness. Determined change in thinking while walking and fMRI neuroimaging of cognitive task pre- and post intervention. (no salary support, \$99,870)

P30 AG024827 Pittsburgh Older Americans Independence Center pilot within program project grant:  
(VanSwearingen, PI for pilot) 01/01/06-12/31/09  
Title: Restoring Skill in Walking: A Motor Re-Learning Approach to Intervention for Older Adults with Mobility Disability  
Among older adults with slow and variable gait, examined the effect of a physical therapy supervised gait intervention based on motor learning (timing and coordination) compared to the usual impairment-targeted gait intervention on clinical, psychological and laboratory measures of mobility and balance of older adults with mobility disability. Explored the impact of white matter disease burden on response to interventions, and examined the relation among clinical, psychological, and laboratory measures of mobility, physical and cognitive functioning, structural brain imaging measures and physical activity. 1.4 calendar months



NIA, P30 AG024827 (Studenski PI)

10/01/03 – 09/30/08

Pittsburgh Claude D Pepper Older Americans Independence Center: PI Stephanie Studenski;

VanSwearingen, Senior Investigator for Physical Function component in RC-2 Assessment Core

Role: define, describe and develop database for use of physical function measures for use in research studies of older adults, related to mobility and balance.

1.0- 1.2 calendar months

## **OTHER RESEARCH RELATED ACTIVITIES**

### **Grant reviews**

Western Psychiatric Institute and Clinic, University of Pittsburgh grant review committee, internal grants and pre-reviews of external grant submissions

Clinical and Translational Science Institute, University of Pittsburgh, internal grant reviews

Pittsburgh Older American's Independence [Pepper] Center, pilot funding program grant reviews

Competitive Medical Research Fund, University of Pittsburgh/ UPMC

### **Journal refereeing**

Physical Therapy

Human Brain Mapping

Journal of the American Geriatrics Society

Journal of Gerontology Medical Sciences

Frontiers in Physiology

British Medical Clinics, Family Practice

British Medical Clinics, Geriatrics

European Journal of Applied Physiology

Archives of Gerontology and Geriatrics

Brain Imaging and Behavior

Physiotherapy Research International

Gait and Posture

Physiotherapy Theory and Practice

Canadian Journal of Diabetes

Clinical Biomechanics

Archives of Physical Medicine

Age and Ageing

Medicine Science Sports and Exercise

Journal of Physical Therapy Education

### **Lists of Current Research Interests**

Neural efficiency and walking efficiency

Neuromotor control in human movement

Assessment and intervention to restore motor skill of walking in older adults

Comparative clinical pet trials: assess motor control of gait (accelerometry) in companion dogs

### **SERVICE:**

#### **National**

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## Organizations

American Physical Therapy Association  
APTA Sections on Orthopedic and Sports Physical Therapy, Education, Geriatrics, Research, and Neurology  
Pennsylvania Physical Therapy Association  
American College of Sports Medicine  
Society for Neuroscience  
Pittsburgh Society for Neuroscience  
The Gerontological Society of America  
Pennsylvania Geriatric Society - Western

## Professional activities

Eldercare Workforce Alliance Advocacy group representative, 2010  
Research Committee (Chair), Section on Geriatrics, APTA, beginning 2006  
Editorial Board Member, Physical Therapy, 2002-2006  
APTA Program Committee, Research Abstracts and Program Review, 2002- present  
Research Committee, Section on Geriatrics, APTA, 2002-present  
Associate Editorial Board Member, Physical Therapy, 2001-present  
Research Abstract Reviewer, APTA Combined Sections, Annual Meetings, 2001-present  
Research Committee, Section on Neurology, APTA, 2001-2006  
Clinical Research Agenda, American Physical Therapy Association, invited participant to establish a research agenda for the profession, 1998-1999  
Research Abstracts Reviewer, Gerontology Society of America, 1999 - present

## **School and university committee service**

2022-present	Member, Appointment, Promotion, Tenure Committee, SHRS
2007-2019	Chair, Appointment, Promotion, Tenure Committee, SHRS
2006-present	University Committee on Appointment & Tenure, ad-hoc member
2012-present	SHRS PhD Program: methods of inquiry committee
2004-present	Institutional Review Board for Human Subject Research, Committee B
2000-2004	Appointment, Promotion, Tenure Committee, SHRS
1999-2000	Chair of the Faculty, SHRS
1998-1999	Vice Chair of the Faculty, SHRS
1996-2004	Advisory Board, Survival and Ethics Program, University
1995-2000	Modular Curriculum Task Force, SHRS
1994-97; 1997-2004	Senate Athletics Committee, University (elected committee)
1990-1998	Safety Committee, SHRS, Chair
1993-present	Graduate Faculty, member
1995-present	Faculty, Neuromuscular Post-Professional (Graduate) Focus in Physical Therapy
1986-present	Faculty, Orthopedic/Musculoskeletal Post-Professional (Graduate) Focus in Physical Therapy
1986-2003	Co-coordinator, (coordinator 1986-1995) Anatomy Demonstration Laboratory, SHRS
1996-2020	Co-coordinator, Neuroanatomical Specimen collection and management, Anatomy Demonstration Laboratory, SHRS; includes interface with University of Pittsburgh Health Sciences Office for Oversight of Anatomic Specimens and Department of Environmental Health and Safety

## **Clinical service**

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Facial Nerve Center, UPMC, 1994-2005  
Benedum Geriatric Center, mobility clinic, 2003-2011

### **Service to community**

Venture Outdoors, Allegheny County and Pittsburgh City Parks, UPMC – walk-with-docs, 2017- present  
Animal Friends, '43 Friends' campaign for funding for shelter pets, 2016-present  
Therapet Program, Animal Friends, certified therapy dog handler and humane education volunteer, community, hospital, and school visits, 2018-present  
Pet therapy, Pittsburgh area institutions, UPMC, schools, Therapy Dog International, 2003 - 2007  
Board of Directors, Vintage, Inc, 1994-2000  
Professional Advisory Committee, Visiting Nurse Association of Pittsburgh, 1985-2000  
PA /WV Geriatrics Society Committee on Education, 1999-2007  
Mathilda Theiss Health Center, consultations  
Central Blood Bank / Institute for Transfusion Medicine - Platelet donor  
Bethlehem Haven, Pittsburgh, PA (1982-2001)