

## CURRICULUM VITAE

### Courtney D. Hall

Research Health Science Specialist  
Auditory and Vestibular Dysfunction REAP  
James H. Quillen VA Medical Center

Professor  
Department of Physical Therapy  
East Tennessee State University

Telephone: 423-926-1171, x. 7518  
Email: courtney.hall@va.gov

Telephone: 423-439-8727  
Email: hallcd1@etsu.edu

## EDUCATION

Ph.D. 2000 University of Texas at Austin (Kinesiology)  
M.S. 1997 University of Oregon (Exercise & Movement Science)  
B.S. 1990 University of North Carolina at Chapel Hill (Physical Therapy)  
B.S. 1984 Davidson College (Mathematics)

## PROFESSIONAL POSITIONS

### Current

2018-present Professor, Dept of Physical Therapy, East Tennessee State University, Johnson City, TN  
2011-present Research Health Science Specialist, Hearing and Balance Research Program, James H. Quillen VA Medical Center (VAMC), Mountain Home, TN  
2011-present Director, Gait/Balance Laboratory, James H Quillen VAMC, Mountain Home, TN  
2011-present Adjunct Associate Professor of Rehabilitation Medicine, Emory University, Atlanta, GA

### Previous

2016-2017 Associate Director, Auditory Vestibular Research Enhancement Award Program (REAP), James H Quillen VAMC, Mountain Home, TN  
2011-2018 Associate Professor, Dept of Physical Therapy, East Tennessee State University, Johnson City, TN  
2010-2011 Investigator, Birmingham/Atlanta Geriatric Research and Education Clinical Consortium  
2005-2010 Affiliate Investigator, Birmingham/Atlanta Geriatric Research & Education Clinical Consortium  
2003-2011 Assistant Professor, Dept of Rehabilitation Medicine, Emory University Atlanta, GA  
2003-2011 Research Health Scientist, Atlanta VA Medical Center, Decatur, GA  
2002- 2003 Research Fellow, Department of Rehabilitation Medicine, Emory University Atlanta, GA  
2001-2002 Research Fellow, Center for Successful Aging at California State University, Fullerton  
2001-2002 Instructor, Kinesiology & Health Promotion, California State University, Fullerton  
1999-2000 Staff physical therapist, HealthSouth, Austin, TX  
1998-1999 Teaching Assistant, Kinesiology & Health Education, University of Texas, Austin  
1997-2000 Staff physical therapist, St. David's Medical Center, Austin, TX  
1994-1996 Staff physical therapist, Sacred Heart Medical Center, Eugene, OR  
1992-1994 Staff physical therapist/clinical instructor, Dekalb Medical Center, Atlanta, GA  
1991-1992 Staff physical therapist, Moses Cone Memorial Hospital, Greensboro, NC  
1990 -1991 Staff physical therapist, St. Joseph's Home Health Agency, Pinehurst, NC

**LICENSURE/SPECIALTY BOARDS**

|            |   |                               |
|------------|---|-------------------------------|
| 1990       | Licensure examination in Physical Therapy |                               |
| 1990       | North Carolina Physical Therapy license   | PT 2375 (current)             |
| 1992, 2002 | Georgia Physical Therapy license          | PT 003628 (no longer active)  |
| 1994       | Oregon Physical Therapy license           | PT 2777 (no longer active)    |
| 1997       | Texas Physical Therapy license            | PT 1111011 (no longer active) |
| 2001       | California Physical Therapy license       | PT 26096 (no longer active)   |
| 2012       | Tennessee Physical Therapy license        | PT 9474 (current)             |

**Specialty Boards:** Certification in Vestibular Rehabilitation (1999)

**SCHOLARLY ACTIVITY****Grants****Active**

CDMRP Psychological Health and Traumatic Brain Injury Research Program (PT160140)

9/29/17-9/28/20

Direct costs: \$1,130,228

Factors Associated with Outcomes in Patients with Vestibular Symptoms Related to Traumatic Brain Injury (Akin/Pugh, Co-PI)

Role: Co-Investigator

VA Rehabilitation RR&D Merit Review Grant (C1986R)

4/1/16-3/31/20

Direct costs: \$1,481,211

The Effect of Noise Exposure on the Vestibular System (Akin, PI)

Role: Co-Investigator

**Completed**

ETSU Research Development Committee, Interdisciplinary Grants Program (18-005ID)

7/1/17-6/30/18

Direct costs: \$45,720

Identification of Individuals at Risk for Falls with Drug-Based Indices

Role: PI

VA Rehabilitation RR&D Small Projects in Rehabilitation Research (C2058-P)

1/1/16-12/31/17

Direct costs: \$199,490

Vestibular Rehabilitation and Otolith Dysfunction

Role: PI

VA RR&D Research Enhancement Award Program (C4339F)

10/1/11 - 12/31/17

Direct costs: \$1,750,000

Auditory Vestibular REAP (Akin, PI)

Role: Co-Investigator

NIH/NIDCD Phase I Small Business Innovation Research Grant R43DC016245 (Co-I)

4/3/17-10/7/17

Direct costs: \$150,000

Rock Steady- A mobile, gamified vestibular rehabilitation therapy app for older adults with complaints of dizziness (Flynn, PI)

Role: Co-Investigator

DoD/VA Chronic Effects of Neurotrauma Consortium (1-I01-RX-001135-01-A2/F1135-I)  
 10/1/14 – 9/30/17 Direct costs: \$656,520  
 Otolith Dysfunction and Postural Stability (Akin/Hall, Co-PIs)  
 Role: Co-PI

VA Rehabilitation R&D Merit Review Grant E7613R (PI)  
 8/01/12 - 7/31/15 (no-cost extension: 9/30/16) Direct costs: \$635,135  
 Vestibular rehabilitation and dizziness in geriatric patients

VA Rehabilitation R&D Merit Review Pilot Grant E7614P (PI)  
 8/01/12 - 7/31/14 (no-cost extension: 9/30/15) Direct costs: \$199,825  
 Cognitive training and dual-task ability in older adults

Atlanta Rehab R & D Center of Excellence pilot, 2400H-1 (PI)  
 5/1/2009-12/31/2010 Direct costs: \$39,000  
 Veterans' Intraocular Lenses (IOLs) Project

Atlanta Rehab R & D Center of Excellence pilot, 2400H-2 (PI)  
 5/1/2009-12/31/2010 Direct costs: \$41,404  
 Characterization of Test Performance in Patients with Traumatic Brain Injury

Paralyzed Veterans of America, 592 (Co-I)  
 6/01/2008-5/31/2010 (No-cost extension 11/30/10) Direct costs: \$100,000  
 Wheelchair Tai Chi Training Program for People with Spinal Cord Injury (Wang, PI)

Private Industry: Wicab, Inc. (PI)  
 3/01/2008-8/31/2010 Direct costs: \$42,125  
 A Pilot Study to Investigate the Effects of the BrainPort Balance Device on Balance, Gait, and Quality of Life in Patients with Traumatic Brain Injury

VA Rehab R & D Advanced Research Career Development Award, E4465K (PI)  
 10/01/2006-9/30/2009 Direct costs: \$432,150  
 Relationship between Dual-Task Ability and Fall Risk in Older Adults

VA Rehab R&D Merit Review Pilot Grant, C4168P (PI)  
 4/01/2006-9/30/2009 Direct costs: \$100,000  
 Vestibular rehabilitation and dizziness in geriatric patients

VA Rehab R&D Research Career Development Award C3249 (PI)  
 7/1/03 - 6/30/06 Direct costs: \$265,000  
 Dynamic Visual Acuity and Fall Risk in Older Adults with Vestibular Loss

Atlanta Rehab R & D Center of Excellence pilot, 2400H-1 (PI)  
 10/2003-9/2004 Direct costs: \$20,000  
 Effects of T'ai Chi Intervention on Dual-Task Ability in Older Adults

### **Consulting contracts**

- 2014 - 2017 Consultant (Subject Matter Expert), Georgia Institute of Technology, Research and Engineering Research Center (RERC) on Technologies to Support Successful Aging with Disability (TechSAGE) funded by National Institute on Disability and Rehabilitation Research (PI: Tracy Mitzner, PhD)
- 2007 - 2009 Founding Member, Falls Advisory Council, Philips Lifeline
- 2002 - 2004 Data Analyst, California State University, Fullerton

### **Scientific publications**

- Hall CD**, Woollacott MH, Jensen JL. Age-related changes in rate and magnitude of ankle torque development: Implications for balance control. The Journals of Gerontology. Series A, Biological sciences and medical sciences. 54A(10): M507-13, 1999.
- Hall CD**, Smith A, Keele S. The impact of aerobic activity on cognitive function in older adults: A new synthesis based on the concept of executive control. European Journal of Cognitive Psychology. 13(1/2): 279-300, 2001.
- Hall CD**, Jensen JL. Age-related differences in lower extremity power following support surface perturbations. Journal of the American Geriatrics Society. 50(11):1782-8, 2002.
- Hall CD**, Schubert MC, Herdman SJ. Prediction of fall risk reduction as measured by dynamic gait index in individuals with unilateral vestibular hypofunction. Otology & Neurotology. 25(5):746-751, 2004.
- Hall CD**, Jensen JL. The effect of cane use on balance control. Clinical Biomechanics. 19(7): 678-687, 2004.
- Hall CD**, Herdman SJ. Reliability of clinical measures used to assess patients with vestibular hypofunction. Journal of Neurologic Physical Therapy. 30(2):74-81, 2006.
- Herdman SJ, **Hall CD**, Schubert MC, Das VE, Tusa RJ. Recovery of dynamic visual acuity in bilateral vestibular hypofunction. Archives of Otolaryngology - Head & Neck Surgery. 133(4):383-9, 2007.
- Hall CD**, Miszko T, Wolf SL. Effects of tai chi intervention on dual-task ability in older adults: a pilot study. Archives of Physical Medicine and Rehabilitation. 90(3):525-529, 2009.
- Hall CD**, Cox LC. The role of vestibular rehabilitation in the balance disorder patient. Otolaryngologic Clinics of North America. 42(1):161-169, 2009.
- Schubert MC, **Hall CD**, Das VE, Tusa RJ, Herdman SJ. Oculomotor strategies and their effect of reducing gaze position error. Otology & Neurotology. 31(2):228-231, 2010.
- Hall CD**, Heusel-Gillig L, Tusa RJ, Herdman SJ. Efficacy of gaze stability exercises in older adults with dizziness. Journal of Neurologic Physical Therapy. 34(2):64-69, 2010. [Winner of Golden Synapse Award for best article in JNPT for 2010]
- Hall CD**, Heusel-Gillig L. Balance rehabilitation and dual-task ability in older adults. Journal of Clinical Geriatrics & Gerontology. 1(1):22-26, 2010.
- Herdman SJ, **Hall CD**, Eggers R, Sampson S, Goodier S, Filson R. Misclassification of patients with spinocerebellar ataxia as having psychogenic postural instability based on computerized dynamic posturography. Frontiers in Neurology. 2:21, 2011. [doi: 10.3389/fneur.2011.00021]

- Hall CD**, Barnes CS, Schuchard RA. Fall Risk Assessment in People with Retinitis Pigmentosa. InSight: Research and Practice in Visual Impairment and Blindness. 4(2):55-64, 2011.
- Hall CD**, Echt KV, Wolf SL, Rogers WA. Cognitive and motor mechanisms underlying older adults' ability to divide attention while walking. Physical Therapy. 91(7): 1039-1050, 2011.
- Herdman SJ, **Hall CD**, Delaune W. Variables Associated with Outcome in Patients with Unilateral Vestibular Hypofunction. Neurorehabilitation and Neural Repair. 26(2):151-62, 2012.
- Bhatti PT, Herdman SJ, Roy SD, **Hall CD**, Tusa RJ. A Prototype Head-Motion Monitoring System for In-Home Vestibular Rehabilitation Therapy. Journal of Bioengineering & Biomedical Science. S1-009, 2012.
- Hackney ME, **Hall CD**, Echt KV, Wolf SL. Application of Adapted tango as Therapeutic Intervention for Patients with Chronic Stroke: A Case Study. Journal of Geriatric Physical Therapy. 35(4):206-17, 2012.
- Akin FW, **Hall CD**, Murnane O. The Role of Rotational Stimulation in Vestibular Compensation. Otolaryngology-Head & Neck Surgery. 148(1):176-7, 2013.
- Hackney ME, **Hall CD**, Echt K, Wolf SL. Dancing for Balance: Feasibility and Efficacy in Oldest-Old Adults with Visual Impairment. Nursing Research. 62(2):138-143, 2013.
- Akin FW, **Hall CD**, Riska KM. Interdisciplinary Approach to Dizziness: Roles of Audiology and Physical Therapy. ASHA Perspectives on Public Health Issues Related to Hearing and Balance. 14: 11-21, 2013. doi:10.1044/phi14.1.11
- Riska KM, Akin FW, Murnane O, **Hall CD**. Video Head Impulse Testing (vHIT) and the Assessment of Horizontal Semi-circular Canal Function: A case study. Journal of the American Academy of Audiology. 26(5): 518-523, 2015.
- Hackney ME, **Hall CD**, Echt K, Wolf SL. Multimodal Exercise Benefits Mobility in Older Adults with Visual Impairment: a Preliminary Study. Journal of Aging and Physical Activity. 23(4):630-9, 2015.
- Herdman SJ, **Hall CD**, Maloney B, Knight S, Ebert M, Lowe J. Variables Associated with Outcome in Patients with Bilateral Vestibular Hypofunction: Preliminary study. Journal of Vestibular Research. 25(3-4):185-94, 2015.
- Hall CD**, Clevenger CK, Wolf RA, Lin JS, Johnson TM, Wolf SL. Feasibility of a Low-cost, Interactive Gaming System to Assess Balance in Older Women. Journal of Aging and Physical Activity. 24(1):111-8, 2016.
- Hall CD**, Herdman SJ, Whitney SL, Cass SP, Clendaniel RA, Fife TD, Furman JM, Getchius TSD, Goebel JA, Shepard NT, Woodhouse SN. Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: An Evidence-Based Clinical Practice Guideline from the American Physical Therapy Association Neurology Section. Journal of Neurologic Physical Therapy. 40(2):124-155, 2016. [2018 Article of the Year, Vestibular Rehabilitation Special interest Group, Neurology Section, APTA]
- Hall CD**, Herdman SJ, Whitney SL. Treatment for Vestibular Disorders: How Does Your Physical Therapist Treat Dizziness Related to Vestibular Problems? Journal of Neurologic Physical Therapy. 40(2):156, 2016.
- Riska KM, **Hall CD**. Reliability and Normative Data for the Dynamic Visual Acuity Test for Vestibular Screening. Otology & Neurotology. 37(5):545-52, 2016.

- McBean AL, Najjar RP, Schuchard RA, **Hall CD**, Wang C-A, Ku B, Zeitzer JM. Standing balance and spatiotemporal aspects of gait are impaired upon nocturnal awakening in healthy late middle-aged and older adults. Journal of Clinical Sleep Medicine. 12(11):1477-1486, 2016.
- Gattu R, Akin FW, Cacace AT, **Hall CD**, Murnane OD, Haacke EM. Vestibular, balance, microvascular, and white matter neuroimaging characteristics of blast injuries: Four case reports. Brain Injury. 30(12):1501-1514, 2016.
- Renz E, Hackney ME, **Hall CD**. Foot clearance and variability in mono- and multifocal intraocular lens users during stair navigation. Journal of Rehabilitation Research and Development. 53(6):933-44, 2016.
- Hall CD**, Karpen S, Panus P, Odle B, Walls ZF. Development and Evaluation of the Medication-based Index of Physical function (MedIP). Age and Ageing. 46(5):761-766, 2017.
- Akin FW, Murnane OM, **Hall CD**, Riska KM. Vestibular consequences of mild traumatic brain injury and blast exposure: a review. Brain Injury. 31(9):1188-1194, 2017.
- Roller RA, **Hall CD**. A Speed-based Approach to Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: A Retrospective Chart Review. Journal of Vestibular Research. 28(3-4):349-357, 2018.
- Hall CD**, Akin FW, Murnane OD, Sears J. Otolith Dysfunction and Postural Stability: Study Design and Protocol for a Prospective, Case-controlled Study. Journal of Neurology (In Review).

### **Book chapters**

- Hall CD**, Smith A, Keele S. The impact of aerobic activity on cognitive function in older adults: A new synthesis based on the concept of executive control. In: Ageing and executive control. U.Mayr, D.Spieler, & R.Kliegl (eds). Hove, UK: Psychology Press, 2001.
- Hall CD**, Herdman SJ. Dynamic Posturography. In: Neurotology. Jackler RK, Brackmann D (eds). Harcourt, Inc; 256-269: 2005.
- Hall CD**, Herdman SJ. Balance, Vestibular and Oculomotor Dysfunction. In: Textbook of Neural Repair and Rehabilitation. Selzer ME, Cohen L, Gage FH, Clarke S, Duncan PW (Eds.). Cambridge, U.K.: Cambridge University Press; 298 – 314: 2006.
- Wolf SL, **Hall C**, Kapasi Z. Section 7: Geriatrics. In: The Rehabilitation Specialist's Handbook, 4<sup>th</sup> Edition. Roy SH, Wolf SL (Eds.). Philadelphia: F.A. Davis Company; 647-688: 2013.
- Hall CD**, Herdman SJ. Balance, Vestibular and Oculomotor Dysfunction. In: Textbook of Neural Repair and Rehabilitation, 2<sup>nd</sup> Edition. Selzer ME, Cohen L, Gage FH, Clarke S, Duncan PW (Eds.). Cambridge, U.K.: Cambridge University Press; 355-366: 2014.
- Gillig-Heusel L, **Hall CD**. Physical Therapy Management of People with Non-Vestibular Dizziness. In: Vestibular Rehabilitation, 4<sup>th</sup> Edition. Herdman SJ & Clendaniel RA (Eds.). Philadelphia, PA: F.A. Davis; 569-583: 2014.
- Hall CD**, Meldrum D, Whitney SL. The Role of Emerging Technologies in Vestibular Rehabilitation. In: Vestibular Rehabilitation, 4<sup>th</sup> Edition. Herdman SJ & Clendaniel RA (Eds.). Philadelphia, PA: F.A. Davis; 537-553: 2014.
- Hall CD**, Meldrum D. The Aging Vestibular System: Implications for Rehabilitation. In: Balance Function Assessment and Management, 2<sup>nd</sup> Edition. Jacobson GP & Shepard NT (Eds.). San Diego, CA: Plural Publishing, Inc.; 793-808: 2015.

McCaslin DL, Shepard NT, **Hall CD**. Vestibular Rehabilitation. In: Glasscock-Shambaugh Surgery of the Ear 7<sup>th</sup> Edition. Haynes DS, Carlson ML, Welling DB, & Minor LB (Ed.). Raleigh, NC: People's Medical Publishing House. 2017. (In Press).

### **Manuals, videos, computer programs, and other teaching aids**

Hall CD. Introducing the Nagi Model. Balance and Mobility Specialist Certification Program [On-line lecture], California State University, Fullerton, Fullerton, CA, 2002.

Hall CD. Internal /External Risk Factors. Balance and Mobility Specialist Certification Program [On-line lecture], California State University, Fullerton, Fullerton, CA, 2002. Revised July 2008.

Hall CD. Medical Diagnoses, Medications, and Their Importance in the Community Setting. Balance and Mobility Specialist Certification Program [On-line lecture], California State University, Fullerton, Fullerton, CA, 2008.

Hall CD. Multisensory Training. Balance and Mobility Specialist Certification Program [On-line lecture], California State University, Fullerton, Fullerton, CA, 2008.

Hall CD. Overview of Balance. Balance and Mobility Specialist Certification Program [On-line lecture], California State University, Fullerton, Fullerton, CA, 2008.

### **Published Abstracts**

Hall CD, Light KE. Heavy resistive exercise effort on reciprocal movement coordination of closed-head injured subjects with spasticity. Neuro Report. 1990;14:19.

Light KE, Rehm S, Hall CD, Giuliani C. Does heavy resistive exercise promote muscular cocontraction and loss of reciprocal movement in brain-injured subjects? Abstr Soc Neurosci. 1994;20:884 (353.2).

Hall CD, Jensen JL. Postural response to vertical optic flow in 4- to 12-month old infants. J Sport Exercise Psych. 1996;18 (Supl.):S37.

Hall CD, Jensen JL. The relationship between muscle onset latencies and balance control. J Aging Phys Activity. 1997;5:369-370.

Hall CD, Jensen JL. Rate of ankle muscle torque development: Implications for balance control. J Sport Exercise Psych 20 (Suppl): S5, 1998.

Hall CD, Jensen JL. Age-related changes in balance control: Mechanical energy changes following perturbation. Posture Gait 2001.

Hall CD. The ABCs of community-based fall risk reduction program. Gerontology 47 (Suppl): 115, 2001.

Hall CD, Jensen JL. The effect of cane use on the compensatory step. J Geriatr PT 24: 15, 2001.

Hall CD, Schubert MC, Herdman SJ. Prediction of Fall Risk Reduction in Individuals with Unilateral Vestibular Hypofunction. Neuroscience Abstracts. 2003.

Rose DJ, Hall CD. Identifying risk factors for falls in older adults residing in assisted living settings. Med Sci Sports Exer. 36 (Suppl): S181, 2004.

Hall CD, Herdman SJ. Reliability of Clinical Measures to assess patients with vestibular hypofunction. J Neurol Phys Ther. 29:208-209, 2006.

- Herdman SJ, Hall CD, Schubert MC, Das, VE, Tusa RJ. Exercise-induced recovery of dynamic visual acuity in patients with bilateral vestibular hypofunction. J Neurol Phys Ther. 29:217, 2006.
- Hall CD, Abbott KN, Lane EC, Petrosky KN, Pilgrim JA, Tusa RJ, Herdman SH. Development of the Emory clinical vestibular chair test. J Neurol Phys Ther. 31:210-211, 2007.
- Herdman SJ, Nathan ER, Richardson KD, Hall CD, Tusa RJ. Effect of otolith dysfunction on clinical presentation of patients with vestibular hypofunction. J Neurol Phys Ther. 31:217, 2007.
- Schuchard RA, Barnes C, Hall C. Relationship of visual function and everyday task functional vision in people with RP. Investigative Ophthalmology & Visual Science, Suppl 49, abstract 4112, 2008.
- Hall CD, Hutcheson J, Cloudt, Millians E, Wolter J, Herdman S. The effect of predictability of head turns on gait in patients with vestibular hypofunction. J Neurol Phys Ther. 32:217, 2008.
- Hall CD, Sampson S, Wilson R, Raymer R, Stone S, Herdman S. Do patients with spinocerebellar atrophy meet criteria for aphysiological postural instability on computerized dynamic posturography? J Neurol Phys Ther. 32:219, 2008.
- Hall CD, Hoover J, Jacobs M, Lieberman R, Mihevc K, Tusa RJ, Herdman SJ. "A new measurement tool for vestibular hypofunction: Validity of the Emory clinical vestibular chair test". J Neurol Phys Ther. 33:232, 2009.
- Hall CD, Heusel-Gillig L. Effect of balance rehabilitation on dual-task ability in older adults. International Congress on Gait & Mental Function. Abstract 66, 2010.
- Hackney ME, Hall CD. Effects of Cognitive and Manual tasks on gait in community dwelling older adults. Society for Neural Control of Movement 20th Annual Meeting Program. Naples, FL, April 20-25, 2010.
- Hall CD, Heusel-Gillig L, Tusa R, Herdman SJ. Efficacy of gaze stability exercises in older adults with complaints of dizziness. Annual Conference of the APTA. Phys Ther. ISSN: 1538-6724; Abstract 158-RR. 2010. [http://apps.apta.org/Custom/abstracts/pt2010/abstractsPt.cfm?m\\_id=28491](http://apps.apta.org/Custom/abstracts/pt2010/abstractsPt.cfm?m_id=28491).
- Hall CD, Hoder J. Feasibility of Using Electrotactile Feedback to Improve Balance in Individuals with Remote History of Traumatic Brain Injury. Annual Conference of the APTA. Phys Ther. Abstract 166-RR. 2011. <http://apps.apta.org/Custom/abstracts/pt2011/166-RR.html>.
- Hall CD, Hackney ME, Wolf SL. Impact of Cognitive and Manual Dual-tasks on Gait in Older Adults at High and Low Risk for Falls. Paper presented at 64<sup>th</sup> Annual Conference of the Gerontological Society of America. Boston, MA, November 18-22, 2011. The Gerontologist 2011; 51(S2): 383.
- Hackney, ME, Hall CD, Echt KV, Wolf SL. Adapted Tango: Feasibility and Efficacy in Older Adults with Visual Impairment. Paper presented at 64<sup>th</sup> Annual Conference of the Gerontological Society of America. The Gerontologist 2011; 51(S2): 626-627.
- Hall CD, Clevenger C, Byrd Sellers J, Wolf R, Lin J, Johnson T, Wolf S. Feasibility of Using Nintendo Wii Fit System to Assess Balance in Older Adults. Combined Sections Meeting of the APTA. Chicago, IL, February 8-11, 2012. Phys Ther. Abstract 2128.
- Herdman SJ, Hall C, Delaune W, Ebert M, Ferris JL, Knight SS, M B. Variables Associated with Outcome in Patients with Bilateral Vestibular Hypofunction: Preliminary Study. Combined Sections Meeting of the APTA. San Diego, CA, January 21-24, 2013.



- Heusel-Gillig L, Hall CD. Effectiveness of Physical Therapy Intervention in Patients with Degenerative Cerebellar Ataxia. Combined Sections Meeting of the APTA. San Diego, CA, January 21-24, 2013.
- Hall CD, Heusel-Gillig L, Brawner C, Dillon C, Jones A, Herdman SJ. Impact of Anxiety and Depression on Outcome in Patients with Unilateral Vestibular Hypofunction: Preliminary Results. Poster presented at XXVIII Barany Society Meeting. Buenos Aires, Argentina, May 25-28, 2014. *J Vestib Res* 2014; 24 (2-3): 246.
- Williams D, Hall C, Cantor P, Williams J, Brown N, Dulling R, and Egbujor O. Reliability of Two Alternative Methods for the Standard Mid-thigh Isometric Pull. International Society of Biomechanics in Sports. Johnson City, TN, July 12-16, 2014.
- Hall CD, Broadwater A, Caissie DJ, Woodward D, Young H. Reliability and Validity of a Low-cost, Interactive Gaming System to Assess Balance in Older Adults. Combined Sections Meeting of the APTA. Indianapolis, IN, February 4-7, 2015. Poster 1035.
- Hall CD, Riska K, Keck K, Kerley J, King A, Kington B, Lamie K. Reliability and Normative Values of the InVision™ Dynamic Visual Acuity Test in Older Adults. Combined Sections Meeting of the APTA. Indianapolis, IN, February 4-7, 2015. Poster 2253.
- Williams D, Cantor P, Williams J, Hall C, Brown N, Dulling R, Egbujor O. Reliability of Two Alternative Methods for the Standard Mid-Thigh Pull. Combined Sections Meeting of the APTA. Indianapolis, IN, February 4-7, 2015. Poster 1257.
- Akin FW, Murnane OD, Hall CD, Sears JR, Riska KM, Atlee RB. Vestibular consequences of mTBI and blast exposure. Traumatic Brain Injury State-of-the-Art Conference, U.S. Dept. of Veterans Affairs, Veterans Health Administration, Office of Research and Development, Washington, D.C. August 25-26, 2015.
- O'Dell J, George J, Panus PC, Odle BL, Hall CD. Use of a quantitative drug index to quantify drugs relevant to fall risk in community-dwelling older adults. Combined Sections Meeting of the APTA, Anaheim, CA, February 17 –20, 2016. Poster 1094.
- Akin FW, Murnane OD, Hall CD, Sears JR, Riska KM, Atlee RB. Vestibular consequences of mTBI and blast exposure. The American Auditory Society Annual Meeting, Scottsdale, AZ, March 3-5, 2016. Poster 76.
- Hall CD, Sesay MM, Echt KV. Cognitive Training and Motor Dual-Task Ability in Older Adults: A Preliminary Study. Poster presented at the 69th Annual Scientific Meeting of the Gerontological Society of America, New Orleans, LA, November 16-20, 2016. *The Gerontologist* 2016; 56(S3): 333.
- Tice AN, Waddell PS, Hall CD, Akin FW, Murnane OD, Riska KR. Reliability and validity of Bertec computerized dynamic posturography. Poster presented at 2017 AudiologyNOW! Annual Meeting, Indianapolis, Indiana, April 5-8, 2017.
- Hall CD, Rouse S, Atlee R, Sesay M, Echt K, Akin F. Efficacy of gaze stability exercises in older adults with non-vestibular dizziness. APTA NEXT Annual Conference, Boston, MA, June 21-24, 2017. Poster 1035.
- Panus PC, Hall CD, Walls ZF, Odle BL. Influences of Age, obesity and adverse drug effects on gait speed in community-dwelling older adults. APTA NEXT Annual Conference, Boston, MA, June 21-24, 2017. Poster. [APTA NEXT Conference 2017 Abstract Special Recognition in the Geriatrics category]
- Heusel-Gillig L, Nogi A, Hall CD. Suggested guidelines for backwards walking speed: Scoring the functional gait assessment. Combined Sections Meeting of the APTA, New Orleans, LA, February 21 – 24, 2018. Poster 261.

Hall CD, Rouse SB, Flynn SM, Hoffmann WN. Development of Rock Steady 1.0 – a mobile, gamified vestibular rehabilitation therapy app. Poster presented at the International Conference for Vestibular Rehabilitation, August 17-19, 2018, Chicago, IL. Poster 9.

Hall CD, Akin FW, Murnane OD, Sears J, Atlee RB. Impact of Otolith Dysfunction on Postural Stability and Quality of Life: a chronic effects of neurotrauma consortium study. Poster presented at the Association for Research in Otolaryngology 42<sup>nd</sup> Annual MidWinter Meeting, Baltimore, MD, February 9-13, 2019.

Akin F, Smith S, Hall C, Riska K, Larkin A. The Development of the Benign Paroxysmal Positional Vertigo Symptom Impact Questionnaire (BSIQ). Poster presented at the Association for Research in Otolaryngology 42<sup>nd</sup> Annual MidWinter Meeting, Baltimore, MD, February 9-13, 2019.

### **Invited Professional Presentations and/or Continuing Education Courses - International**

Invited Course Instructor, 3<sup>rd</sup> International Tutorial Course on Vestibular Rehabilitation, Bertinoro, Italy, "Otolith defects", "Age, fear, subjective complaints in patients with BVH", "Treatment approach for disuse disequilibrium and fear of falling", "Habituation assessment and exercises", "Modification of exercises and expectations in treatment of patients with UVH and migraine or Meniere's". November 24-26, 2005.

Invited Course Instructor, Vestibular Rehabilitation, Melbourne, Australia, "Assessment of Balance and Gait", "Management of the Elderly Person with Vestibular Dysfunction", "Case studies: Decision Making – Bilateral Hypofunction". November 8-12, 2006.

Invited Lecturer, Otoneurology Lab of the British Hospital, Montevideo, Uruguay, "Gaze Stability in Individuals with Vestibular Hypofunction", August 5, 2008.

Invited Course Instructor, Vestibular Rehabilitation, Auckland, New Zealand. "Key elements of the Clinical Examination", "Assessment of Balance and Gait", "Vestibular pathology – Benign Paroxysmal Positional Vertigo", "Treatment of vestibular hypofunction", "Progression of exercises and planning of home exercise program". September 20-22, 2010.

Invited Course Instructor, Advanced Vestibular Rehabilitation, Brisbane, Australia. "Update on Assessment of Balance and Gait". September 27 - 29, 2010.

Invited Course Instructor, Vestibular Rehabilitation: A Competency-based Course, Brisbane, Australia. "Assessment of Balance and Gait", "Case study: Decision Making – Non-vestibular Dizziness". September 28-October 2, 2010.

Invited Speaker, "An Interdisciplinary Approach to Normal Pressure Hydrocephalus", "Clinical Cases and Vestibular Rehabilitation" presented at the XV International Congress of the Mexican Association of Communication, Audiology, Otoneurology and Phoniatics (AMCAOF), Guanajuato, Mexico, March 16-19, 2011.

Invited Course Instructor, Vestibular Rehabilitation: A Competency-based Course, Auckland, New Zealand. "Assessment of Balance and Gait", "Management of the Elderly Person with Vestibular Dysfunction", "Case study: Decision Making: Non-vestibular Dizziness". December 5-9, 2012.

Invited Course Instructor, Vestibular Rehabilitation: A Competency-based Course, Perth, Australia. "Assessment of Balance and Gait", "Management of the Elderly Person with Vestibular Dysfunction", "Case study: Decision Making: Non-vestibular Dizziness". April 20-24, 2013.

Invited Speaker, "Efficacy of Gaze Stability Exercises" presented at the XXVIII Barany Society Meeting, Buenos Aires, Argentina, May 25-28, 2014.

Invited Speaker, "The Role of Emerging Technologies in Rehabilitation" presented at the XXVIII Barany Society Satellite Meeting, Buenos Aires, Argentina, May 29, 2014.

Course Director/Invited Instructor, Advances in Vestibular Rehabilitation, Auckland, New Zealand. "New Treatments for Vestibular Hypofunction", "Clinical Practice Guidelines Expectations", "Expectations for Recovery". February 1- 3, 2017.

Course Director/Invited Instructor, Vestibular Rehabilitation: A Competency-based Course, Auckland, New Zealand. "Assessment of Balance and Gait", "Treatment Theory", "Case study: Decision Making – Non-vestibular Dizziness". February 3- 7, 2017.

Course Director/Invited Instructor, Advances in Vestibular Rehabilitation, Sydney, Australia. "Practicum: High level balance, concussion Rx", "Clinical practice guidelines expectations", "VOR/VSR dysfunction in aging and neurodegenerative disease". September 24-26, 2017.

Course Director/Invited Instructor, Vestibular Rehabilitation: A Competency-based Course, Sydney, Australia. "Assessment of Balance and Gait", "Management of the Elderly Person with Vestibular Dysfunction". September 25-30, 2017.

Course Director/Invited Instructor, Vestibular Rehabilitation: A Competency-based Course, Hyderabad, India. "Assessment of Balance and Gait", "Assessment of Subjective Complaints", "Treatment progression and Decision-making", "Treatment of Motion Sensitivity". October 27-31, 2018.

#### **Invited Professional Presentations /or Continuing Education Courses - National**

Course Instructor. Balance & Mobility Specialist Certification Program, California State University, Fullerton, CA. 6-weekend CE course, "Introducing the Nagi Model", "Internal/External Risk Factors". 2001, 2002.

Lab Assistant. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. March 12-16, 2002.

Course Instructor. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Management of the Patient with Non-vestibular Dizziness"; "Assessment of Balance and Gait", "Management of the Elderly Person with Vestibular Dysfunction", "Focused assessment of patients with vestibular hypofunction", "Case study: Elderly Fear of Falling". 2003 - 2013.

Course Instructor. Advanced Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Update on Balance & Gait Assessment". 2003, 2005, 2007 (offered every other year).

Invited speaker. Balance Disorders: Evaluation & Treatment [Distance Learning Program], University of Florida, Gainesville, FL. "Rehabilitation and Balance: A Physical Therapist's Perspective." Spring 2004.

Course Instructor. Balance & Mobility Specialist Certification Program, California State University, Fullerton, CA. On-site certification course, July 6 – 8, 2004.

Lab Assistant. Vestibular Function: Test Interpretation and Application to Rehabilitation, Emory University, Atlanta GA. 2004, 2006, 2010 (offered every other year).

Course Instructor. Balance & Mobility Specialist Certification Program, Denver, CO. On-site certification course. May 6 – 8, 2005.

Invited Course Instructor. Florida Association of Speech-Language Pathologists and Audiologists Fall Conference, Lake Mary, FL. “Computerized dynamic posturography”, “Overview of vestibular rehabilitation”, “BPPV assessment and treatment”. September 9, 2005.

Course Instructor. Balance & Mobility Specialist Certification Program, Emory University, Atlanta, GA. On-site certification course. 2005 - 2010.

Course Instructor. Balance & Mobility Specialist Certification Program, Doylestown Hospital, Doylestown, PA. On-site certification course. May 19 – 21, 2006.

Invited speaker. Visiting Nurse Health Systems, Atlanta, GA. “Assessment and Treatment of Balance Dysfunction”. October 21, 2006.

Course Instructor. Balance & Mobility Specialist Certification Program, Greenspring Retirement Village, Springfield, VA. On-site certification course. February 23 – 25, 2007.

Invited speaker. 8th Annual Transforming Fall Prevention Practices Conference. VISN 8 Patient Center of Inquiry and the University of South Florida College of Nursing, Clearwater, FL. “Cognition, Multi-tasking, and Falls”. April 16-18, 2007.

Keynote Speaker. Resident Life Directors’ Meeting, Erickson Communities, Cedar Crest Village, NJ. “FallProof™ at Erickson: Steps to Better Balance and Greater Independence”. October 17, 2007.

Invited Speaker. Center for Hearing and Balance Seminar Series, Department of Otolaryngology – Head & Neck Surgery, Johns Hopkins University, Baltimore, MD. “Cognition, Multi-tasking and Fall Risk”, November 6, 2008.

Invited Speaker. Center for Rehabilitation Medicine Seminar Series, Department of Rehabilitation Medicine, Emory University, Atlanta, GA. “Cognition, Multi-tasking and Fall Risk: Implications for Rehabilitation”, November, 18, 2008.

Invited Speaker. Cognitive Aging Brown Bag Series, Department of Psychology, Georgia Institute of Technology, Atlanta, GA. “Mechanisms underlying ability to divide attention while walking”, March 4, 2009.

Invited speaker. 10th Annual Transforming Fall Prevention Practices Conference. VISN 8 Patient Center of Inquiry and the University of South Florida College of Nursing, Clearwater, FL. “Management of the Elderly Person with Vestibular Dysfunction”, “Fall Risks and Intervention in a Dizzy Older Adult”, May 5-7, 2009.

Invited Speaker. Scientific seminar Southeast Center of Excellence in Geriatric Medicine, Quarterly Conference, University of Alabama, Birmingham, AL. “Dual-task ability in older adults”. August 13, 2009.

Faculty, Advances in Vestibular Rehabilitation: Recertification Course, Duke University, Durham, NC, “Update on balance & gait assessment”, August 3-6, 2011.

Invited Speaker. California Chapter of American Physical Therapy Association, Annual Conference, Long Beach, CA. “Management of the patient with vestibular hypofunction or loss”, September 22-23, 2011.

Invited Speaker. Georgia Academy of Audiology, Annual Conference, Atlanta, GA. “A multi-disciplinary approach to management of the dizzy patient”, January 31-February 1, 2013.

Core Faculty. Balance & Mobility Specialist Certification Program, California State University, Fullerton, Fullerton, CA. On-site certification course. February 15-17, 2013.

Invited Speaker. Joint Defense Veterans Audiology Conference, Annual Conference, Nashville, TN. "A multi-disciplinary approach to management of the dizzy patient", February 25-27, 2013.

Core Faculty. Balance & Mobility Specialist Certification Program, Franke at Seaside, Mount Pleasant, SC. On-site certification course. September 27-29, 2013.

Invited Speaker. American Speech-Language-Hearing Association, Annual Conference, Chicago, IL. "An inter-disciplinary approach to management of the dizzy patient", November 14-16, 2013.

Course Co-Director/Faculty. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Assessment of Balance and Gait", March 31-April 5, 2014.

Core Faculty. Balance & Mobility Specialist Certification Program, Franke at Seaside, Mount Pleasant, SC. On-site certification course. September 26-28, 2014.

Course Co-Director/Faculty. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Assessment of Balance and Gait", April 22-26, 2015.

Invited Speakers (Akin, Hall, Murnane, Riska). "Effects of Age on Vestibular and Balance Systems". Appalachian Spring Conference: Aging of the Hearing and Balance Systems, Auditory and Vestibular Research Enhancement Award Program (REAP), James H. Quillen VA Medical Center, Mountain Home, TN, June 11-12, 2015.

Invited Speaker. Geriatric Grand Rounds, Quillen College of Medicine, East Tennessee State University, Johnson City, TN. "Management of the Dizzy Patient", June 24, 2015.

Invited Speaker. 20<sup>th</sup> Annual Louis A. Cancellaro Primary Care Conference, Quillen College of Medicine, East Tennessee State University, Johnson City, TN. "Fall Risk", March 23, 2016.

Course Co-Director/Faculty. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Assessment of Balance and Gait", April 11-16, 2016.

Invited Speaker. 21<sup>st</sup> Annual Louis A. Cancellaro Primary Care Conference, Quillen College of Medicine, East Tennessee State University, Johnson City, TN. "Screening the Dizzy Patient", March 22, 2017.

Course Co-Director/Faculty. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Assessment of Balance and Gait", March 25-April 1, 2017.

Invited Speakers (Hall & Cacace). "Neuroimaging & Rehabilitative Options in Vestibular & Balance-Related Dysfunction Following Noise & Blast". 1-hour VA HSR&D Cyberseminar, April 10, 2017.

Invited Speaker. "The Role of Physical Therapy in Management of the Dizzy Patient". 1-hour VA Audiology Clinical Forum Webinar, August 16, 2017.

Invited Speaker. "Physical Functioning, Fall Risk and Mobility in Individuals with Vision Loss". Vision Loss and Falls Conference, The Southeastern Blind Rehabilitation Center, Birmingham, AL, October 27, 2017.

Course Co-Director/Faculty. Vestibular Rehabilitation: A Competency-Based Course, Emory University, Atlanta GA. "Assessment of Balance and Gait", "Assessment of Subjective Complaints", March 19-24, 2018.

Invited Speakers (Akin, Hall, Murnane). "Noise and blast-related effects on vestibular and balance function". Appalachian Spring Conference: War-related Injuries of the Hearing and Balance Systems, Hearing and Balance Research Program, James H. Quillen VA Medical Center, Mountain Home, TN, June 28-29, 2018.

Invited Panelist (Polensek, Mirk, Hall, Friedland). "Dizziness in the Geriatric Patient". American Neurotology Society Fall Scientific Program, Atlanta, GA, October 6, 2018.

### **Scientific Presentations (Peer Reviewed)**

Rose DR (Chair), Jones CJ, Lucchese NL, Hall CD. "Developing and implementing community-based fall risk reduction programs: Sharing the hurdles and highlights". Symposium presented at World Congress of Gerontology, Vancouver, Canada, July 1-6, 2001.

Rose DR, Hall CD, Trueblood PR. "Developing group-based fall risk reduction programs for seniors at risk of falling". Symposium presented at Annual Conference of the American Physical Therapy Association, Chicago, IL, June 30-July 3, 2004.

Backus DA, George SZ, Johnston TE. "Becoming a PT Researcher, or So I Finished My PhD: What Do I Do Now?" Panel Discussion (Brach JS, Hall CD, Lee SC). Symposium presented at Combined Sections Conference of the American Physical Therapy Association, Nashville, TN, February 6 – 9, 2008.

Backus DA, Brach JS, George SZ, Hall CD, Johnston TE, Lee SC. "The Business of Balancing Research, Service and Teaching: A Program for Junior Faculty". Symposium presented at the APTA Combined Sections Meeting, Las Vegas, NV, February 9 –12, 2009.

Hall CD, Echt K, Wolf SL, Rogers WA. "Cognitive and motor mechanisms underlying ability to divide attention while walking". Paper presented at the International Society for Posture and Gait Research Conference, Bologna, Italy, June 21-25, 2009.

Hall CD. "Fall risk, dynamic visual acuity and balance in visually impaired individuals". Research symposium on Balance, Mobility and Falls: Theory and Practice (Odom JV, Moderator) presented at Envision Conference 09: A Multi-disciplinary Low Vision Rehabilitation and Research Conference. San Antonio, TX, September 9-12, 2009.

Hall CD, Goldstein F, Polensek S. An Interdisciplinary Approach to Normal Pressure Hydrocephalus. Symposium presented at Annual Conference of the American Physical Therapy Association, Boston, MA, June 16 – 19, 2010.

Herdman SJ, Hall CD. "Management of Vestibular Hypofunction: Evidence-Based Practice, Progression of Treatment and Outcomes". Educational session presented at Annual Conference of the American Physical Therapy Association, National Harbor, MD, June 8-11, 2011.

Hall CD, Hackney ME, Wolf SL. "Impact of Cognitive and Manual Dual-Tasks on Gait of Older Adults at High and Low Fall Risk". Paper presented at The Gerontological Society of America's 64th Annual Scientific Meeting, Boston, MA, November 18-22, 2011.

Hackney ME, Hall CD, Echt KV, Wolf SL. Adapted Tango: Feasibility and Efficacy in Older Adults with Visual Impairment. Paper presented at 64th Annual Conference of the Gerontological Society of America. Boston, MA, November 18-22, 2011.

Field-Fote EC, Craik RL, Hall CD, Johnston TE, Zeni JA. "Responding to grant and manuscript reviewers' comments". Symposium presented at the APTA Combined Sections Meeting, Las Vegas, NV, February 9 –12, 2014.

Casper A, Davenport MJ, Hall CD. "The Effect of Predictability of Head Turns on Gait in Community-Dwelling Older Adults". Paper presented at the APTA Combined Sections Meeting, Anaheim, CA, February 17 –20, 2016.

Hall CD, Herdman SJ, Whitney SL, Heusel-Gillig L. "Vestibular Rehabilitation for Peripheral Vestibular Hypofunction: Clinical Practice Guideline and Beyond!" Education session presented at the APTA Combined Sections Meeting, Anaheim, CA, February 17 –20, 2016.

Dibble L, Schubert MC, Hall CD. "More common than you think: Vestibulo-ocular and vestibulospinal dysfunction in aging and neurodegenerative disease". Education session presented at the APTA Combined Sections Meeting, Anaheim, CA, February 17 –20, 2016.

Akin F, Hall CD, Murnane OD, Sears J, Atlee RB. "Impact of Otolith Dysfunction on Postural Stability and Quality of Life". Research podium presented at the American Academy of Audiology Annual Meeting, Nashville, TN, April 18-21, 2018.

Akin F, Hall CD. "Otolith Dysfunction and Postural Stability: A Chronic Effects of Neurotrauma Consortium Study". Oral presentation at the TBI - Alternative, Non-pharmacological, and Rehabilitation Management of Concussion/Mild TBI breakout session, Abstract # MHSRS-18-1275, Military Health System Research Symposium (MHSRS), Kissimmee, FL, August 20-23, 2018.

Akin F, Smith S, Riska K, Hall C, Sears J, Larkin A. The Development of the Benign Paroxysmal Positional Vertigo Symptom Impact Questionnaire (BSIQ). Research seminar presented at the American Speech-Language-Hearing Association Annual Convention, Boston, MA, November 15-17, 2018.

Hall CD, Akin FW, Murnane OD, Sears J, Atlee RB. "Impact of Otolith Dysfunction on Postural Stability and Quality of Life: a chronic effects of neurotrauma consortium study". Research podium presented at the American Balance Society Annual Meeting, Scottsdale, AZ, February 26-27, 2019.

Akin F, Smith S, Hall C, Riska K, Larkin A. The Development of the Benign Paroxysmal Positional Vertigo Symptom Impact Questionnaire (BSIQ). Research podium presented at the American Balance Society Annual Meeting, Scottsdale, AZ, February 26-27, 2019.

Riska K, Bellucci J, Garrison, D, Hall C, Peskoe S. Relationship Between Corrective Saccades and Measures of Physical Function in Unilateral and Bilateral Vestibular Loss. Research podium presented at the American Balance Society Annual Meeting, Scottsdale, AZ, February 26-27, 2019.

### **Professional Presentations (Non-peer Reviewed)**

Invited speaker. Mini Medical Course, Emory University, Center for Lifelong Learning. "Approaches to Dizziness and Disorders of Balance". September 27, 2005.

Invited Speaker. Park Springs Low Vision Support Group, Stone Mountain, GA. "Age-related changes in balance control". August 11, 2005.

Invited Speaker. Park Springs Community, Stone Mountain, GA. "Relationship between Dual-task Ability and Fall Risk in Older Adults". February 11, 2008.

Invited speaker. Contemporary Practice of Physical Therapy, Emory University. Center for Lifelong Learning, "Cognition, Multi-Tasking, and Falls in Older Adults". July 15, 2008.

Invited speaker. Robust and Resilient Aging, Emory University. Osher Lifelong Learning Institute at Emory, “Fall Prevention: Steps to Better Balance and Greater Independence”. July 6, 2010.

Invited Speaker, VA Pain Management Group, Atlanta VAMC, “Health Benefits of Tai Chi”. July 15, 2010.

Lecturer. Robust and Resilient Aging: Update on Healthy Aging Research, series sponsored by Atlanta VAMC, Perimeter Adult Learning & Services, “Fall Prevention: Steps to Better Balance and Greater Independence”, October 18, 2010.

Lecturer. Your Brain in the Wild: Wherewithal for living daily, series sponsored by Atlanta VAMC. Perimeter Adult Learning & Services, “Therapeutic Approach to Dizziness”, September 12, 2011.

Invited Speaker. Senior Workshop, YMCA, Dekalb-Decatur, GA. “Therapeutic Approach to Dizziness”, September 27, 2011.

Invited Speaker. “Fall Prevention: Steps to Better Balance and Greater Independence”. Erwin Senior Center, October 10, 2013; Kingsport Senior Center, November 5, 2013; Jonesborough Senior Center, November 19, 2013.

Poster Presentation. Williams D, Hall C, Brown N, Cantor P, Dulling R, Egbujor O, Williams J. Reliability of the Mid-thigh Pull Using Bar Method or Pelvic Belt Method. TPTA Spring Meeting, Nashville, TN, March 29-30, 2014.

Invited Speaker. “Balance and Fall Prevention”. Growth Processes: Geriatric/Aging Section, Division of Physical Therapy, Emory University, October 27, 2014.

Invited Radio Speaker. “Vestibular Rehabilitation and Dizziness in Older Community-Dwelling Adults”. WETS Community Forum with Jim Blalock, WETS 89.5 Public Radio. August 15-16, 2015.

Invited Speaker. “Balance and Fall Prevention”. Growth Processes: Geriatric/Aging Section, Division of Physical Therapy, Emory University, November 13, 2015.

Invited Speaker. “Balance and Fall Prevention in the Geriatric Population”. Growth Processes: Geriatric/Aging Section, Division of Physical Therapy, Emory University, November 8, 2017.

Invited Podcast Speakers (Hall, Whitney). “Vestibular Hypofunction Treatment Update”. Blog Talk Radio Show, American Physical Therapy Association Vestibular Special Interest Group, January 15, 2018.

## **TEACHING**

### **Courses**

Neurological Dysfunction (3-credit undergraduate/graduate course). Exercise & Movement Science, University of Oregon, Summer 1996.

Measurement and Evaluation (3-credit undergraduate core curriculum course). Division of Kinesiology & Health Promotion, California State University, Fullerton, Spring 2001.

Motor Learning and Motor Control (3-credit undergraduate core curriculum course). Division of Kinesiology & Health Promotion, California State University, Fullerton, Fall 2001.

Biology of Aging (2-hour lecture). Graduate Gerontology Program, California State University, Fullerton. Fall 2001.

Balance Assessment and Treatment (4-hour lecture/lab). Neurologic Physical Therapy, Emory University. Fall 2003 – 2009.



Vestibular Anatomy and Physiology (2-hour lecture). Neurologic Physical Therapy, Emory University. Lecture: Fall 2003.

The Role of the Vestibular System in Postural Control (4-hour seminar). Emory University, Biology of Movement Control. Spring 2005.

Health Benefits of Tai Chi (2-hour lecture/demo). Neurologic Physical Therapy, Emory University. Fall 2005.

Ground Reaction Forces (2-hour lab). Musculoskeletal Kinesiology. Fall 2005 – 2008.

Data Analysis: Quantitative (2-hour lecture). Clinical Research I, Emory University. Spring 2008 – 2011.

Motor dual-task ability (2-hour lecture). Motor Control, Emory University. Summer 2011.

Introduction to Research (1-credit graduate course). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Summer, 2012 - 2018.

Scientific Inquiry for Physical Therapists (1-credit graduate course). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Spring, 2012 - 2018.

Neurotherapeutics I (3-credit graduate course; co-Instructor). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Fall, 2014 - 2018.

Case Study in Physical Therapy (1-credit graduate course, Capstone project). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Spring, 2014-2018.

Clinical Correlates I (1-credit graduate course). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Spring, 2014, 2016-2018.

Clinical Correlates II (1-credit graduate course). Department of Physical Therapy, East Tennessee State University, Johnson City, TN, Summer, 2014-2018.

### **Mentored Students**

#### **Doctor of Physical Therapy students directly supervised:**

Elizabeth Lane, Kris Petrosky, Joseph Pilgrim, Kelly Abbott, Emory University, "Comparison of a clinical measure of vestibular function to computerized rotary chair testing". 2005 – 2007. [Presented in a poster at APTA CSM Nashville, TN. February 2008]

Elise Nathan, Kendra Richardson, Emory University, "Effect of otolith function on vestibular rehabilitation outcomes". 2005 – 2007. [Presented in a poster at APTA CSM Nashville, TN. February 2008]

Julia Hutcheson, Christy Cloudt, Beth Millians, Jill Wolter, Emory University, "The effect of predictability of head turns on gait in patients with vestibular hypofunction". 2006 – 2008. [Presented in a poster at APTA CSM Las Vegas, NV. February 2009]

Stasha Sampson, Becky Wilson, Rachael Raymer, Sydne Stone, Emory University, "Testing Patients with Cerebellar Degeneration for Aphysiologic Balance Problems Using Computerized Dynamic Posturography". 2006 – 2008. [Presented in a poster at APTA CSM Las Vegas, NV. February 2009]

Julie Hoover, Margaret Jacobs, Ranit Lieberman, Kate Mihevc, Emory University, "Comparison of a clinical measure of vestibular function to computerized rotary chair testing". 2007 – 2009. [Presented in a poster at APTA CSM San Diego, CA. February 2010]

Alana Loveday, Emily Hussey, Julia Toomey, Valerie Menendez, Emory University, “Role of divided attention in recovering from a trip during gait”. 2008 – 2010. [Received a Physical Therapy Association of Georgia Research Grant, 2008; Received the Pam Catlin Research Award from Emory University, 2010].

Amanda Broadwater, Daniel Caissie, Daniel Woodward, Holly Young, East Tennessee State University, “Use of Wii Fit as a Low-Cost Alternative System to Evaluate Balance Ability in Older Adults”. 2013 – 2014 [Student Research Award, Department of Physical Therapy, ETSU; Poster presented at APTA CSM, Indianapolis, IN. February 2015; **Outstanding Capstone Award**, School of Graduate Studies, ETSU].

Cody Keck, Justin Kerley, Andrew King, Brent Kington, Kirsten Lamie, East Tennessee State University, “Normative Data for the Dynamic Visual Acuity Test for Vestibular Screening”. 2013 – 2014 [Student Research Award, Department of Physical Therapy, ETSU; Poster presented at APTA CSM, Indianapolis, IN. February 2015].

Casper A. “The Effect of Predictability of Head Turns on Gait in Community-Dwelling Older Adults”. [Student Research Award, Department of Physical Therapy, ETSU; Platform presentation at APTA CSM, Anaheim, CA, February 17 –20, 2016.]

Jake O’Dell, Joshua George. Use of a quantitative drug index to quantify drugs relevant to fall risk in community-dwelling older adults. 2014-2015 [**Student Research Award**, Department of Physical Therapy, ETSU; Poster presented at APTA CSM, Anaheim, CA, February 17 –20, 2016]

Matthew Crowe, Heather Green, Joseph Hoekstra, Mason Howell, Heath Nier. “Feasibility of a Tablet-based Fall Prevention Program for Older Adults”. 2016 – 2017.

Emily Grieshaber, Blaine Hendricks, Kammie Lewis, Megan Morton, Seth McGrady. “Identification of Individuals at Risk for Falls with Drug-Based Indices”. 2017-2018.

Travis Coombs. “Normative Data for the Bertec Dynamic Visual Acuity Test for Vestibular Screening. 2018.

#### **Doctor of Audiology students directly supervised:**

Ashley Tice, Paige Waddell, Advisor Audiology doctoral project, ETSU Department of Audiology, Reliability and Validity of Bertec Computerized Dynamic Posturography “. 2015 – 2016. [Poster presentation at the American Academy of Audiology Conference AudiologyNOW!, Indianapolis, IN, April 5-8, 2017; Nominated (out of 300 abstracts) for the James and Susan Jerger Award for Excellence in Student Research]

#### **Post-doctoral fellows directly supervised:**

Strawberry Gatts, Ph.D. Rehab R & D Center, Atlanta VAMC, Mentor on Career Development Award II, “A new approach: Tai Chi to prevent falls in seniors with visual deficits”. 2008 [Deceased].

Madeleine Hackney, Ph.D. Rehab R & D Center, Atlanta VA Medical Center, Mentor on Career Development Award I, “Exercise effects on mobility and fall risk in visually impaired elders”. 2009 – 2012.

Kristal Riska, Ph.D. Auditory and Vestibular Research Enhancement Award Program (REAP), James H. Quillen VA Medical Center, Mentor on Career Development Award I, “Evaluation and Management of Veterans with Dizziness”. 2014 – 2016.

**Early-Career Investigator directly mentored:**

Robin Criter, Au.D., Ph.D. "Fall Risk Screening in Audiology Hearing Clinics". American Speech-Language-Hearing Association (ASHA) Research Mentoring Network's 2016 Pathways Program, June 13-14, 2016, Rockville, MD. 2016-2017.

**Residents directly supervised:**

James Lin, M.D. Research Fellow in Advanced Geriatrics, Atlanta VAMC. Atlanta Rehab R & D CoE, Pilot Grant, "A Pilot Study of the Wii Fit as a Low-Cost Virtual Reality System to Evaluate Balance Ability in Older Adults". 2008 – 2010.

**Other students:**

Tan Vo, Bobby (Zhihua) He, Xiao (Randy) Han, Kiet Huynh, Advisor senior design project, Georgia Tech BME Program – "An Assistive Locomotive Device for Diabetic Peripheral Neuropathy". 2007 – 2008.

Eva Price, Thesis Advisor, East Tennessee State University, "Subjective Visual Vertical and Otolith Compensation: Evaluating Off-Axis Rotation Stimulus in Healthy Controls". 2016-2018. Podium presentation at the 2018 Boland Undergraduate Research Symposium, March 27, 2018, ETSU.

**SERVICE AND LEADERSHIP****Department**

|              |  |
|--------------|--|
| 2007-2011    | Academic Affairs Committee, Emory University                               |
| 2007-2009    | Continuing Education Committee, Emory University                           |
| 2005-2007    | Admissions Committee, Emory University                                     |
| 2011-2012    | Chair Search Committee, East Tennessee State University                    |
| 2011-2013    | Curriculum Committee, East Tennessee State University                      |
| 2011-2015    | Practice Development (Johnson City Community Health Center), ETSU          |
| 2011-current | Admissions Committee, East Tennessee State University                      |
| 2011-current | Student Promotion and Retention Committee, East Tennessee State University |
| 2014-2017    | Research Committee, ETSU   |

**University**

|              |  |
|--------------|--|
| 2008-2011    | Emory University/VA Institutional Review Board (IRB) Committee, Emory University         |
| 2011-2014    | Johnson City Community Health Center Planning Committee, East Tennessee State University |
| 2013-2015    | Collaborative Research Committee, East Tennessee State University                        |
| 2014-2017    | Faculty Development and Awards committee, East Tennessee State University                |
| 2015         | Scholarship Working Group, East Tennessee State University                               |
| 2016-current | Learning Resources Advisory Committee (LRAC), East Tennessee State University            |
| 2018-2019    | Faculty Development and Awards committee, Chair, East Tennessee State University         |

**External**

|           |  |
|-----------|--|
| 2003-2011 | Research Committee, Physical Therapy Association of Georgia                  |
| 2003-2011 | National Scientific Advisory Council, American Federation for Aging Research |
| 2005-2011 | Grant reviewer, American Federation for Aging Research                       |
| 2005      | Grant reviewer, Retirement Research Foundation                               |
| 2010      | Grant reviewer, NASA Sensorimotor Peer Review Panel                          |

|              |   |
|--------------|---|
| 2010-2013    | Secretary, Early Career Researcher Special Interest Group, Section on Research, American Physical Therapy Association   |
| 2011-2013    | Scientific Review Committee, Physical Therapy Foundation  |
| 2011         | Grant reviewer (Ad Hoc), VAI2 Industry Innovation Competition, Veterans' Affairs  |
| 2011         | Session Chair, Session Title: Risks for Functional Limitations, Annual Conference of the Gerontological Society of America. Boston, MA, November 18-22, 2011. |
| 2012         | Grant reviewer (Ad Hoc), Sensory Systems/Communication RRD Review Panel, Veterans' Affairs  |
| 2012-2016    | Team Lead, Vestibular Rehabilitation Clinical Practice Guidelines Workgroup, Neurology Section, APTA  |
| 2013         | Grant reviewer (Ad Hoc), Sensory Systems/Communication and Career Development RRD Review Panels, Veterans' Affairs  |
| 2014         | Planning Committee, Geriatric Evaluation and Management Tools (GEMs) dissemination, GEC National Program Office   |
| 2015         | Grant reviewer, Peer Review Program, Chronic Effects of Neurotrauma Consortium (CENC), Veterans' Affairs/Department of Defense                                |
| 2015-current | Member, Research & Development Committee, James H. Quillen VAMC, Mountain Home, TN  |
| 2015         | Grant reviewer (Ad Hoc), Neurobiology F (NURF) BLR&D/CSR&D Review Panel, Veterans' Affairs  |
| 2016         | Grant reviewer (Ad Hoc), SPiRE RR&D Panel, Veterans' Affairs  |
| 2018-2019    | Accreditation Leadership Team, Johnson City Senior Center, Memorial Park Community Center, Johnson City, TN   |

### **Editorial Boards and Reviewer Activity**

2005 - present Editorial Board, Journal of Aging and Physical Activity

2010 - present Editorial Board, Frontiers in Neuro-otology

2008 - 2014 Editorial Board, The Open Longevity Science Journal

Reviewer for the following journals:

Annals of Neurology

Archives of Gerontology & Geriatrics

Archives of Physical Medicine & Rehabilitation

Audiology & Neurotology

Gait & Posture

Journal of Experimental Psychology: Applied

Journal of Neurologic Physical Therapy

Journal of Vestibular Rehabilitation

Otology & Neurotology

Physical Therapy Journal

### **Professional affiliations**

American Physical Therapy Association (since 1989; Neurology and Geriatrics Sections; Vestibular and Balance and Falls Special Interest Groups)

Bárány Society (selected in 2014)

Gerontological Society of America (since 2000)

North America Society for Psychology of Sport and Physical Activity (1996 – 2002)

## **Honors and Awards**

|           |   |
|-----------|---|
| 1996      | Graduate Student Research Award, University of Oregon,  |
| 1996-1997 | Systems Physiology Training Grant Fellowship, University of Oregon,   |
| 1997-1999 | A.D. Hutchison Fellowship, University of Texas  |
| 1998      | Phi Kappa Phi Honor Society, University of Texas  |
| 1998      | Graduate Student Professional Development Award, University of Texas  |
| 1999      | Technical Assistance Workshop Fellow, National Institute on Aging   |
| 2009      | Marquis' Who's Who in America   |
| 2011      | ERRIS (Enhancing Rehabilitation Research in the South) Intensive Workshop on Grant Writing in Rehabilitation, Research Fellow   |
| 2011      | Golden Synapse Award for best article ("Efficacy of gaze stability exercises in older adults with complaints of dizziness") published in Journal of Neurologic Physical Therapy in 2010 |
| 2018      | Distinguished Faculty Award in Research, College of Clinical and Rehabilitative Health Sciences, East Tennessee State University  |
| 2018      | Distinguished Faculty Award in Research, East Tennessee State University  |
| 2018      | Article of the Year, Vestibular Rehabilitation Special Interest Group, Neurology Section, American Physical Therapy Association   |

## **Other Activities**

1984 – 1986 Volunteer Teacher and Technical trainer, U.S. Peace Corps, Lesotho, Southern Africa.