Darcy Schwartz Reisman, PhD, PT
4565 Simon Road Wilmington, DE 19803
(302) 764-4701(H) (302) 831-0508(W)
dreisman@udel.edu

Education

Kennedy Krieger Institute/Johns Hopkins School of Medicine – Baltimore, MD
Post-doctoral research training; Mentor: Amy Bastian, PhD, PT
September 2003-September 2005

The University of Delaware
Doctor of Philosophy in Biomechanics and Movement Science
Mentor: John P. Scholz, PhD, PT
Dissertation Defense: August, 2003
Degree Conferred: December, 2003

The College of St. Scholastica, Duluth, MN
Master of Arts in Physical Therapy
Focus Area: Neurologic Rehabilitation
January, 1993 Summa cum laude

Bachelor of Arts in Health Science (Psychology minor)
May, 1991 Summa cum laude

Current Appointment

September 2003- University of Delaware, Department of Physical Therapy and Graduate Program in Biomechanics and Movement Science – Newark, DE

September 2019-	Chairperson
May 2018-	Tenure Track Professor
June 2015-Sept 2019	Associate Chairperson
May 2014-May 2018	Tenure track Associate Professor
January 2010-May 2014	Tenure track Assistant Professor
May 2006-December 2009	Non-tenure track Assistant Professor
September 2003-April 2006	Temporary Assistant Professor

Professional History

2000 and 2001	University of Delaware, Department of Physical Therapy- Newark, DE Supplemental Faculty: Instructor, Advanced Neurotherapeutics
Sept, 1997- May, 1998	Ithaca College, Department of Physical Therapy, Rochester Campus- Rochester, NY Adjunct Faculty, Lab Instructor for Neurology I & II.
Jan, 1997 - Nov, 1998	Lifetime Assistance, Inc. - Rochester, NY Consultant Physical Therapist
Aug, 1996 - Nov, 1998	Unity Health System - Rochester, NY Per Diem Physical Therapist
July, 1996 - Nov, 1998	Elm Manor Nursing Home - Canandaigua, NY Primary Physical Therapist
Oct, 1994 - June, 1996	Virginia-Mason Medical Center - Seattle, WA Staff Physical Therapist
Jan, 1993 – Oct, 1994	Dartmouth-Hitchcock Medical Center - Lebanon, NH Staff Physical Therapist
Sept, 1991 - May 1992	The College of St. Scholastica Graduate Teaching Assistant - Physical Therapy Department

Publications

1. Scholz JP, **Reisman D**, Schöner G. Effects of varying task constraints on solutions to joint coordination in a sit-to-stand task. Experimental brain research. 2001; 141(4):485-500. PubMed [journal] PMID: 11810142

2. Stackhouse SK, **Reisman DS**, Binder-Macleod SA. Challenging the role of pH in skeletal muscle fatigue. Physical therapy. 2001; 81(12):1897-903. PubMed [journal] PMID: 11736624

3. **Reisman DS**, Scholz JP, Schöner G. Coordination underlying the control of whole

body momentum during sit-to-stand. Gait & posture. 2002; 15(1):45-55. PubMed [journal] PMID: 11809580

4. **Reisman DS**, Scholz JP, Schöner G. Differential joint coordination in the tasks of standing up and sitting down. Journal of electromyography and kinesiology : official journal of the International Society of Electrophysiological Kinesiology. 2002; 12(6):493-505. PubMed [journal] PMID: 12435546

5. **Reisman DS**, Scholz JP. Aspects of joint coordination are preserved during pointing in persons with post-stroke hemiparesis. Brain : a journal of neurology. 2003; 126(Pt 11):2510-27. PubMed [journal] PMID: 12958080

6. **Reisman DS**, Block HJ, Bastian AJ. Interlimb coordination during locomotion: what can be adapted and stored? Journal of neurophysiology. 2005; 94(4):2403-15. PubMed [journal] PMID: 15958603

7. **Reisman DS**, Scholz JP. Workspace location influences joint coordination during reaching in post-stroke hemiparesis. Experimental brain research. 2006; 170(2):265-76. NIHMSID: NIHMS13778 PubMed [journal] PMID: 16328275, PMCID: PMC1752211

8. **Reisman DS**, Scholz JP. Deficits in surface force production during seated reaching in people after stroke. Physical therapy. 2007; 87(3):326-36. PubMed [journal] PMID: 17311889

9. **Reisman DS**, Wityk R, Silver K, Bastian AJ. Locomotor adaptation on a split-belt treadmill can improve walking symmetry post-stroke. Brain : a journal of neurology. 2007; 130(Pt 7):1861-72. NIHMSID: NIHMS171372 PubMed [journal] PMID: 17405765, PMCID: PMC2977955

10. Farquhar SJ, **Reisman DS**, Snyder-Mackler L. Persistence of altered movement patterns during a sit-to-stand task 1 year following unilateral total knee arthroplasty. Physical therapy. 2008; 88(5):567-79. PubMed [journal] PMID: 18292217

11. Choi JT, Vining EP, **Reisman DS**, Bastian AJ. Walking flexibility after hemispherectomy: split-belt treadmill adaptation and feedback control. Brain : a journal of neurology. 2009; 132(Pt 3):722-33. PubMed [journal] PMID: 19074191, PMCID: PMC2664447

12. **Reisman DS**, Rudolph KS, Farquhar WB. Influence of speed on walking economy poststroke. Neurorehabilitation and neural repair. 2009; 23(6):529-34. PubMed [journal] PMID: 19126838

13. **Reisman DS**, Wityk R, Silver K, Bastian AJ. Split-belt treadmill adaptation transfers to overground walking in persons poststroke. Neurorehabilitation and

neural repair. 2009; 23(7):735-44. NIHMSID: NIHMS163257 PubMed [journal] PMID: 19307434, PMCID: PMC2811047

14. Lang CE, Macdonald JR, **Reisman DS**, Boyd L, Jacobson Kimberley T, Schindler-Ivens SM, Hornby TG, Ross SA, Scheets PL. Observation of amounts of movement practice provided during stroke rehabilitation. Archives of physical medicine and rehabilitation. 2009; 90(10):1692-8. NIHMSID: NIHMS257359 PubMed [journal] PMID: 19801058, PMCID: PMC3008558

15. Kesar TM, Perumal R, **Reisman DS**, Jancosko A, Rudolph KS, Higginson JS, Binder-Macleod SA. Functional electrical stimulation of ankle plantarflexor and dorsiflexor muscles: effects on poststroke gait. Stroke; a journal of cerebral circulation. 2009; 40(12):3821-7. NIHMSID: NIHMS153925 PubMed [journal] PMID: 19834018, PMCID: PMC2827197

16. Kesar TM, Perumal R, Jancosko A, **Reisman DS**, Rudolph KS, Higginson JS, Binder-Macleod SA. Novel patterns of functional electrical stimulation have an immediate effect on dorsiflexor muscle function during gait for people poststroke. Physical therapy. 2010; 90(1):55-66. PubMed [journal] PMID: 19926681, PMCID: PMC2802826

17. **Reisman DS**, Bastian AJ, Morton SM. Neurophysiologic and rehabilitation insights from the split-belt and other locomotor adaptation paradigms. Physical therapy. 2010; 90(2):187-95. PubMed [journal] PMID: 20023001, PMCID: PMC2816031

18. **Reisman DS**, McLean H, Bastian AJ. Split-belt treadmill training poststroke: a case study. Journal of neurologic physical therapy : JNPT. 2010; 34(4):202-7. NIHMSID: NIHMS385214 PubMed [journal] PMID: 21084921, PMCID: PMC3394680

19. Kesar TM, **Reisman DS**, Perumal R, Jancosko AM, Higginson JS, Rudolph KS, Binder-Macleod SA. Combined effects of fast treadmill walking and functional electrical stimulation on post-stroke gait. Gait & posture. 2011; 33(2):309-13. NIHMSID: NIHMS257735 PubMed [journal] PMID: 21183351, PMCID: PMC3042540

20. Kesar TM, Binder-Macleod SA, Hicks GE, **Reisman DS**. Minimal detectable change for gait variables collected during treadmill walking in individuals post-stroke. Gait & posture. 2011; 33(2):314-7. NIHMSID: NIHMS260872 PubMed [journal] PMID: 21183350, PMCID: PMC3042506

21. Hakansson NA, Kesar T, **Reisman D**, Binder-Macleod S, Higginson JS. Effects of fast functional electrical stimulation gait training on mechanical recovery in poststroke gait. Artificial organs. 2011; 35(3):217-20. NIHMSID: NIHMS274326 PubMed [journal] PMID: 21401663, PMCID: PMC3081781

22. Tyrell CM, Roos MA, Rudolph KS, **Reisman DS**. Influence of systematic increases in treadmill walking speed on gait kinematics after stroke. Physical therapy. 2011;

91(3):392-403. PubMed [journal] PMID: 21252308, PMCID: PMC3048817

23. Vashista V, Agrawal N, Shaharudin S, **Reisman DS**, Agrawal SK. Force adaptation in human walking with symmetrically applied downward forces on the pelvis. Conference proceedings : ... Annual International Conference of the IEEE Engineering in Medicine and Biology Society. IEEE Engineering in Medicine and Biology Society. Annual Conference. 2012; 2012:3312-5. PubMed [journal] PMID: 23366634

24. Altman AR, **Reisman DS**, Higginson JS, Davis IS. Kinematic comparison of split-belt and single-belt treadmill walking and the effects of accommodation. Gait & posture. 2012; 35(2):287-91. NIHMSID: NIHMS333242 PubMed [journal] PMID: 22015048, PMCID: PMC3274623

25. Roos MA, Rudolph KS, **Reisman DS**. The structure of walking activity in people after stroke compared with older adults without disability: a cross-sectional study. Physical therapy. 2012; 92(9):1141-7. PubMed [journal] PMID: 22677293, PMCID: PMC3432950

26. Awad LN, Kesar TM, **Reisman D**, Binder-Macleod SA. Effects of repeated treadmill testing and electrical stimulation on post-stroke gait kinematics. Gait & posture. 2013; 37(1):67-71. NIHMSID: NIHMS390119 PubMed [journal] PMID: 22796242, PMCID: PMC3488355

27. Knarr B, Roos MA, **Reisman DS**. Sampling frequency impacts measurement of walking activity after stroke. Journal of rehabilitation research and development. 2013; 50(8):1107-12. NIHMSID: NIHMS663669 PubMed [journal] PMID: 24458896, PMCID: PMC4342114

28. Knarr BA, Kesar TM, **Reisman DS**, Binder-Macleod SA, Higginson JS. Changes in the activation and function of the ankle plantar flexor muscles due to gait retraining in chronic stroke survivors. Journal of neuroengineering and rehabilitation. 2013; 10:12. PubMed [journal] PMID: 23369530, PMCID: PMC3565909

29. **Reisman DS**, Binder-MacLeod S, Farquhar WB. Changes in metabolic cost of transport following locomotor training poststroke. Topics in stroke rehabilitation. 2013; 20(2):161-70. NIHMSID: NIHMS612255 PubMed [journal] PMID: 23611857, PMCID: PMC4104066

30. Vashista V, **Reisman DS**, Agrawal SK. Asymmetric adaptation in human walking using the Tethered Pelvic Assist Device (TPAD). IEEE, International Conference on Rehabilitation Robotics : [proceedings]. 2013; 2013:6650385. PubMed [journal] PMID: 24187204

31. Knarr BA, **Reisman DS**, Binder-Macleod SA, Higginson JS. Understanding compensatory strategies for muscle weakness during gait by simulating activation deficits seen

post-stroke. Gait & posture. 2013; 38(2):270-5. NIHMSID: NIHMS427723 PubMed [journal] PMID: 23273489, PMCID: PMC3625686

32. **Reisman DS**, McLean H, Keller J, Danks KA, Bastian AJ. Repeated split-belt treadmill training improves poststroke step length asymmetry. Neurorehabilitation and neural repair. 2013; 27(5):460-8. NIHMSID: NIHMS489264 PubMed [journal] PMID: 23392918, PMCID: PMC3738184

33. Vashista V, Agrawal N, Shaharudin S, **Reisman DS**, Agrawal SK. Force adaptation in human walking with symmetrically applied downward forces on the pelvis. IEEE transactions on neural systems and rehabilitation engineering : a publication of the IEEE Engineering in Medicine and Biology Society. 2013; 21(6):969-78. PubMed [journal] PMID: 23529103

34. **Reisman D**, Kesar T, Perumal R, Roos M, Rudolph K, Higginson J, Helm E, Binder-Macleod S. Time course of functional and biomechanical improvements during a gait training intervention in persons with chronic stroke. Journal of neurologic physical therapy : JNPT. 2013; 37(4):159-65. PubMed [journal] PMID: 24189337, PMCID: PMC3890376

35. Knarr BA, **Reisman DS**, Binder-Macleod SA, Higginson JS. Changes in predicted muscle coordination with subject-specific muscle parameters for individuals after stroke. Stroke research and treatment. 2014; 2014:321747. PubMed [journal] PMID: 25093141, PMCID: PMC4096388

36. Awad LN, **Reisman DS**, Binder-Macleod SA. Do improvements in balance relate to improvements in long-distance walking function after stroke? Stroke research and treatment. 2014; 2014:646230. PubMed [journal] PMID: 25120939, PMCID: PMC4121191

37. Kumar D, Swanik CB, **Reisman DS**, Rudolph KS. Individuals with medial knee osteoarthritis show neuromuscular adaptation when perturbed during walking despite functional and structural impairments. Journal of applied physiology (Bethesda, Md. : 1985). 2014; 116(1):13-23. PubMed [journal] PMID: 24072409, PMCID: PMC3921367

38. Danks KA, Roos MA, McCoy D, **Reisman DS**. A step activity monitoring program improves real world walking activity post stroke. Disability and rehabilitation. 2014; 36(26):2233-6. NIHMSID: NIHMS667842 PubMed [journal] PMID: 24670193, PMCID: PMC4350931

39. Fulk GD, Combs SA, Danks KA, Nirider CD, Raja B, **Reisman DS**. Accuracy of 2 activity monitors in detecting steps in people with stroke and traumatic brain injury. Physical therapy. 2014; 94(2):222-9. PubMed [journal] PMID: 24052577

40. Stanhope VA, Knarr BA, **Reisman DS**, Higginson JS. Frontal plane compensatory strategies associated with self-selected walking speed in individuals

post-stroke. Clinical biomechanics (Bristol, Avon). 2014; 29(5):518-22. NIHMSID: NIHMS669645 PubMed [journal] PMID: 24768223, PMCID: PMC4367535

41. Awad LN, **Reisman DS**, Kesar TM, Binder-Macleod SA. Targeting paretic propulsion to improve poststroke walking function: a preliminary study. Archives of physical medicine and rehabilitation. 2014; 95(5):840-8. NIHMSID: NIHMS552396 PubMed [journal] PMID: 24378803, PMCID: PMC4160043

42. Kesar TM, Sauer MJ, Binder-Macleod SA, **Reisman DS**. Motor learning during poststroke gait rehabilitation: a case study. Journal of neurologic physical therapy : JNPT. 2014; 38(3):183-9. PubMed [journal] PMID: 24933501

43. Tyrell CM, Helm E, **Reisman DS**. Learning the spatial features of a locomotor task is slowed after stroke. Journal of neurophysiology. 2014; 112(2):480-9. PubMed [journal] PMID: 24790172, PMCID: PMC4064415

44. Awad LN, **Reisman DS**, Wright TR, Roos MA, Binder-Macleod SA. Maximum walking speed is a key determinant of long distance walking function after stroke. Topics in stroke rehabilitation. 2014; 21(6):502-9. NIHMSID: NIHMS668013 PubMed [journal] PMID: 25467398, PMCID: PMC4382083

45. Awad LN, Palmer JA, Pohlig RT, Binder-Macleod SA, **Reisman DS**. Walking speed and step length asymmetry modify the energy cost of walking after stroke. Neurorehabilitation and neural repair. 2015; 29(5):416-23. NIHMSID: NIHMS625486 PubMed [journal] PMID: 25288581, PMCID: PMC4385745

46. Awad LN, Binder-Macleod SA, Pohlig RT, **Reisman DS**. Paretic Propulsion and Trailing Limb Angle Are Key Determinants of Long-Distance Walking Function After Stroke. Neurorehabilitation and neural repair. 2015; 29(6):499-508. NIHMSID: NIHMS629414 PubMed [journal] PMID: 25385764, PMCID: PMC4426250

47. Tyrell CM, Helm E, **Reisman DS**. Locomotor adaptation is influenced by the interaction between perturbation and baseline asymmetry after stroke. Journal of biomechanics. 2015; 48(11):2849-57. NIHMSID: NIHMS683678 PubMed [journal] PMID: 25935688, PMCID: PMC4536143

48. Helm EE, **Reisman DS**. The Split-Belt Walking Paradigm: Exploring Motor Learning and Spatiotemporal Asymmetry Poststroke. Physical medicine and rehabilitation clinics of North America. 2015; 26(4):703-13. NIHMSID: NIHMS706723 PubMed [journal] PMID: 26522907, PMCID: PMC4631066

49. Gera G, McGlade KE, **Reisman DS**, Scholz JP. Trunk Muscle Coordination During Upward and Downward Reaching in Stroke Survivors. Motor control. 2016; 20(1):50-69. PubMed [journal] PMID: 25823436

50. Roos MA, **Reisman DS**, Hicks G, Rose W, Rudolph KS. Development of the Modified

Four Square Step Test and its reliability and validity in people with stroke. Journal of rehabilitation research and development. 2016; 53(3):403-12. PubMed [journal] PMID: 27271003

51. Helm EE, Tyrell CM, Pohlig RT, Brady LD, **Reisman DS**. The presence of a single-nucleotide polymorphism in the BDNF gene affects the rate of locomotor adaptation after stroke. Experimental brain research. 2016; 234(2):341-51. NIHMSID: NIHMS732100 PubMed [journal] PMID: 26487176, PMCID: PMC4838573

52. French MA, Moore MF, Pohlig R, **Reisman D**. Self-efficacy Mediates the Relationship between Balance/Walking Performance, Activity, and Participation after Stroke. Topics in stroke rehabilitation. 2016; 23(2):77-83. NIHMSID: NIHMS740469 PubMed [journal] PMID: 26653764, PMCID: PMC4833556

53. Arch ES, **Reisman DS**. Passive-Dynamic Ankle-Foot Orthoses with Personalized Bending Stiffness Can Enhance Net Plantarflexor Function for Individuals Poststroke. Journal of Prosthetics & Orthotics. 2016 April; 28(2):60-67.

54. Srivastava S, Kao PC, **Reisman DS**, Higginson JS, Scholz JP. Coordination of muscles to control the footpath during over-ground walking in neurologically intact individuals and stroke survivors. Experimental brain research. 2016; 234(7):1903-14. PubMed [journal] PMID: 26898314

55. Boyne P, **Reisman D**, Brian M, Barney B, Franke A, Carl D, Khoury J, Dunning K. Ventilatory threshold may be a more specific measure of aerobic capacity than peak oxygen consumption rate in persons with stroke. Topics in stroke rehabilitation. 2016; :1-9. PubMed [journal] PMID: 27454553

56. Awad LN, **Reisman DS**, Pohlig RT, Binder-Macleod SA. Reducing The Cost of Transport and Increasing Walking Distance After Stroke: A Randomized Controlled Trial on Fast Locomotor Training Combined With Functional Electrical Stimulation. Neurorehabilitation and neural repair. 2016; 30(7):661-70. NIHMSID: NIHMS736381 PubMed [journal] PMID: 26621366, PMCID: PMC4885807

57. Danks KA, Pohlig R, **Reisman DS**. Combining Fast-Walking Training and a Step Activity Monitoring Program to Improve Daily Walking Activity After Stroke: A Preliminary Study. Archives of physical medicine and rehabilitation. 2016; 97(9 Suppl):S185-93. NIHMSID: NIHMS804275 PubMed [journal] PMID: 27240430, PMCID: PMC5002381

58. Awad LN, **Reisman DS**, Pohlig RT, Binder-Macleod SA. Identifying candidates for targeted gait rehabilitation after stroke: better prediction through biomechanics-informed characterization. Journal of neuroengineering and rehabilitation. 2016; 13(1):84. PubMed [journal] PMID: 27663199, PMCID: PMC5035477

59. Danks KA, Pohlig RT, Roos M, Wright TR, **Reisman DS**. Relationship Between Walking

Capacity, Biopsychosocial Factors, Self-efficacy, and Walking Activity in Persons Poststroke. Journal of neurologic physical therapy : JNPT. 2016; 40(4):232-8. NIHMSID: NIHMS802419 PubMed [journal] PMID: 27548750, PMCID: PMC5025374

60. Kumar DS, **Reisman DS**, Galloway JC. Go baby go café: a case study on an immersive rehabilitation environment to improve functional outcomes and quality of life. Disabil Rehabil. 2017 Jun 6:1-8. doi: 10.1080/09638288.2017.1334235. [Epub ahead of print] PubMed PMID: 28585449.

61. Srivastava S, Kao PC, **Reisman DS**, Scholz JP, Agrawal SK, Higginson JS. Robotic Assist-As-Needed as an Alternative to Therapist-Assisted Gait Rehabilitation. Int J Phys Med Rehabil. 2016 Oct;4(5). pii: 370. doi: 10.4172/2329-9096.1000370. Epub 2016 Oct 12. PubMed PMID: 28580370; PubMed Central PMCID: PMC5450822.

62. Helm EE, Matt KS, Kirschner KF, Pohlig RT, Kohl D, **Reisman DS**. The influence of high intensity exercise and the Val66Met polymorphism on circulating BDNF and locomotor learning. Neurobiol Learn Mem. 2017 Jun 29;144:77-85. doi: 10.1016/j.nlm.2017.06.003. [Epub ahead of print] PubMed PMID: 28668279.

63. Charalambous CC, Helm EE, Lau KA, Morton SM, **Reisman DS**. The feasibility of an acute high-intensity exercise bout to promote locomotor learning after stroke. Top Stroke Rehabil. 2017 Nov 5:1-7. PMCID: PMC5901747

64. French MA, Morton SM, Pohlig RT, **Reisman DS**. The relationship between BDNF Val66Met polymorphism and functional mobility in chronic stroke survivors. Top Stroke Rehabil. 2018 May;25(4):276-280. PMCID: PMC5901741

65. Charalambous CC, Alcantara CC, French MA, Li X, Matt KS, Kim HE, Morton SM, **Reisman DS**. A single exercise bout and locomotor learning after stroke: physiological, behavioral, and computational outcomes. J Physiol. 2018 May 15;596(10):1999-2016. PMCID: PMC5978382

66. Wright H, Wright T, Pohlig RT, Kasner SE, Raser-Schramm J, **Reisman D**. Protocol for promoting recovery optimization of walking activity in stroke (PROWALKS): a randomized controlled trial. BMC Neurol. 2018 Apr 12;18(1):39. PMCID: PMC5898044

67. French MA, Morton SM, Charalambous CC, **Reisman DS**. A locomotor learning paradigm using distorted visual feedback elicits strategic learning. J Neurophysiol. 2018, 120(4):1923-1931. PMCID: PMC6230784

68. Bamman MM, Cutter GR, Brienza DM, Chae J, Corcos DM, DeLuca S, Field-Fote E, Fouad MN, Lang CE, Lindblad A, Motl RW, Perna CG, **Reisman D**, Saag KM, Savitz SI, Schmitz KH, Stevens-Lapsley J, Whyte J, Winstein CJ, Michel ME. Medical Rehabilitation: Guidelines to Advance the Field with High-Impact Clinical Trials. Arch Phys Med Rehabil. 2018 Dec;99(12):2637-2648. PMID: 30148997

69. Alcantara CC, García-Salazar LF, Silva-Couto MA, Santos GL, **Reisman DS**, Russo TL. Post-stroke BDNF Concentration Changes Following Physical Exercise: A Systematic Review. Front Neurol. 2018 Aug 28;9:637. PMCID: PMC6121011

70. Alcântara CC, Charalambous CC, Morton SM, Russo TL, **Reisman DS**. Different Error Size During Locomotor Adaptation Affects Transfer to Overground Walking Poststroke. Neurorehabil Neural Repair. 2018 Dec;32(12):1020-1030. PMCID: PMC6298810

71. Boyne P, Meyrose C, Westover J, Whitesel D, Hatter K, **Reisman DS**, Cunningham D, Carl D, Jansen C, Khoury JC, Gerson M, Kissela B, Dunning K. Exercise intensity affects acute neurotrophic and neurophysiologic responses post-stroke. J Appl Physiol (1985). 2019 Feb 1;126(2):431-443. PMCID: PMC6397406.

72. Helm EE, Pohlig RT, Kumar DS, **Reisman DS**. Practice Structure and Locomotor Learning After Stroke. J Neurol Phys Ther. 2019 Apr;43(2):85-93. PMCID: PMC6424135.

73. Alcantara CC, Blanco J, De Oliveira LM, Ribeiro PFS, Herrera E, Nakagawa TH, **Reisman DS**, Michaelsen SM, Garcia LC, Russo TL. Cryotherapy reduces muscle hypertonia, but does not affect lower limb strength or gait kinematics post-stroke: a randomized controlled crossover study. Top Stroke Rehabil. 2019 May;26(4):267-280.

74. Li X, Charalambous CC, **Reisman DS**, Morton SM. A short bout of high-intensity exercise alters ipsilesional motor cortical excitability post-stroke. Top Stroke Rehabil. 2019 May 30:1-7. PMCID: PMC6956984.

75. Pigman J, **Reisman DS**, Pohlig RT, Wright TR, Crenshaw JR. The development and feasibility of treadmill-induced fall recovery training applied to individuals with chronic stroke. BMC Neurol. 2019 May 25;19(1):102. PMCID: PMC6823156.

76. Futrell EE, Gross DK, **Reisman D**, Mullineaux DR, Davis IS. Transition to forefoot strike reduces load rates more effectively than altered cadence. J Sport Health Sci. 2020 May;9(3):248-257.

77. Pigman J, **Reisman DS**, Pohlig RT, Jeka JJ, Wright TR, Conner BC, Petersen DA, Crenshaw JR. Anterior fall-recovery training applied to individuals with chronic stroke. Clin Biomech, 2019 Jul 26;69:205-214. PMCID: PMC6823156.

78. Charalambous CC., French MA, Morton SM, **Reisman DS**. A single high-intensity exercise bout during early consolidation does not influence retention or relearning of sensorimotor locomotor long-term memories. Exp Brain Res 2019 Nov;237(11):2799-2810. PMC6801096 [Available on 2020-11-01]

79. Awad L, **Reisman D**, Binder-Macleod S. Distance-Induced Changes in Walking Speed After Stroke: Relationship to Community Walking Activity. J Neurol Phys Ther. 2019 Oct;43(4):220-223.

80. Hornby TG, **Reisman DS**, Ward IG, Scheets PL, Miller A, Haddad D, Fox EJ, Fritz NE, Hawkins K, Henderson CE, Hendron KL, Holleran CL, Lynskey JE, Walter A; and the Locomotor CPG Appraisal Team. Clinical Practice Guideline to Improve Locomotor Function Following Chronic Stroke, Incomplete Spinal Cord Injury, and Brain Injury. J Neurol Phys Ther.

2020 Jan;44(1):49-100.

81. Ray NT, **Reisman DS**, Higginson JS. Walking speed changes in response to user-driven treadmill control after stroke. J Biomech. J Biomech. 2020 Mar 5;101:109643. PMCID: PMC7104554.

82. Boyne P, Scholl V, Doren S, Carl D, Billinger SA, **Reisman DS**, Gerson M, Kissela B, Vannest J, Dunning K. Locomotor Training Intensity After Stroke: Effects of Interval Type and Mode. Top Stroke Rehabil, 2020 Feb 16;:1-11. PMCID: PMC7429314.

83. Boyne P, Meyrose C, Westover J, Whitesel D, Hatter K, **Reisman, DS**, Carl D, Khoury, J. C, Gerson M, Kissela B, Dunning K. (2020). Effects of Exercise Intensity on Acute Circulating Molecular Responses Poststroke. Neurorehabil Neural Repair. 2020 Mar;34(3):222-234. PMCID: PMC7080565.

84. Wood JM, Kim HE, French MA, **Reisman DS**, Morton SM. Use-dependent plasticity explains aftereffects in visually guided locomotor learning of a novel step length asymmetry. J Neurophysiol. 2020 Jul 1;124(1):32-39.

86. Holleran CL, Bland MD, **Reisman DS**, Ellis TD, Earhart GM, Lang CE. Day-to-Day Variability of Walking Performance Measures in Individuals Poststroke and Individuals With Parkinson Disease. J Neurol Phys Ther. 2020 Oct;44(4):241-247. PMCID: PMC7486249.

87. Andreasen SC, Wright TR, Crenshaw JR, **Reisman DS**, Knarr BA. Nonlinear Characterization of Daily Walking Activity After Stroke and the Relationship of Walking Patterns to Weather. Front. Sports Act. Living. 2020, Nov (2): 157.

88. Fahey M, Brazg G, Henderson CE, Plawecki A, Lucas E, **Reisman DS,** Schmit BD, Hornby TG. The Value of High Intensity Locomotor Training Applied to Patients With Acute-Onset Neurologic Injury. Arch Phys Med Rehabil. 2020 Dec 28:S0003-9993(20)31339-3. PMID: 33383032.

89. Chmielewski TL, Tatman J, Suzuki S, Horodyski M, Reisman DS, Bauer RM, Clugston JR, Herman DC. Impaired motor control after sport-related concussion could increase risk for musculoskeletal injury: Implications for clinical management and rehabilitation. J Sport Health Sci. 2021 Mar;10(2):154-161. PMCID: PMC7987572.

90. Miller A, Pohlig RT, Reisman DS. Social and physical environmental factors in daily stepping activity in those with chronic stroke. Top Stroke Rehabil. 2021 Apr;28(3):161-169.

91. French MA, Morton SM, **Reisman DS**. Use of explicit processes during a visually guided locomotor learning task predicts 24-hour retention after stroke. J Neurophysiol. 2021 Jan 1;125(1):211-222.

92. Pigman J, **Reisman DS**, Pohlig RT, Jeka JJ, Wright TR, Conner BC, Petersen DA,

Christensen MS, Crenshaw JR. Posterior fall-recovery training applied to Individuals with chronic stroke: A single-group intervention study. Clin Biomech, Vol 82, 2021.

93. Miller A, Wright T, Wright H, Thompson E, Pohlig RT, **Reisman DS**. Readiness to Change is Related to Real-World Walking and Depressive Symptoms in Chronic Stroke. J Neurol Phys Ther. 2021 Jan;45(1):28-35.

94. Miller A, Pohlig RT, Wright T, Kim H, **Reisman DS**. Beyond Physical Capacity: Factors Associated with Real-world Walking Activity Post Stroke. Arch Phys Med Rehabil. 2021 Apr 21:S0003-9993(21)00304-X. doi: 10.1016/j.apmr.2021.03.023. Epub ahead of print.

95. French MA, Cohen ML, Pohlig RT, **Reisman DS**. Fluid Cognitive Abilities Are Important for Learning and Retention of a New, Explicitly Learned Walking Pattern in Individuals After Stroke. Neurorehabil Neural Repair. 2021 May;35(5):419-430. doi: 10.1177/15459683211001025. Epub 2021 Mar 23. PMID: 33754890; PMCID: PMC8122051.

96. Miller A, **Reisman DS**, Billinger SA, Dunning K, Doren S, Ward J, Wright H, Wagner E, Carl D, Gerson M, Awosika O, Khoury J, Kissela B, Boyne P. Moderate-intensity exercise versus high-intensity interval training to recover walking post-stroke: protocol for a randomized controlled trial. Trials. 2021 Jul 16;22(1):457. PMID: 34271979

97. Ray NT, **Reisman DS**, Higginson JS. Combined user-driven treadmill control and functional electrical stimulation increases walking speeds poststroke. J Biomech. 2021 Jul 19;124:110480.

Grant Funding

ACTIVE
Principal Investigator

1R01 HD086362-01 (Reisman) 09/01/2016-06/30/2022 2.0 academic, 1.0 summer
NIH/NICHD $696,725 Year 1/direct
Promoting Recovery Optimization with WALKing Exercise after Stroke (PROWALKS)
The specific objective of this proposal is to test *whether and for whom* combining fast walking training with a step activity monitoring program (FAST+SAM) is superior in improving real-world walking activity compared to fast walking training alone (FAST) or a step activity monitoring and feedback program alone (SAM) in those with chronic stroke.
ROLE: Principal Investigator

2R01HD078330-05A1 (Reisman) 4/16/2020 - 3/31/2025 1.62 academic, 1.00 summer
NIH/NICHD $299,386/year direct
Behavioral and Neurophysiologic Processes of Locomotor Learning After Stroke
The long-term objective of our research is to advance the recovery of functional mobility following stroke to reduce post-stroke disability.
ROLE: Principal Investigator

T32HD007490E (Reisman) 5/1/2020 - 4/30/2025 0.70 academic
NIH Renewal PT/PHD Predoctoral Training Program $203,448
The goal of this pre-doctoral training program is to continue to improve the quality and quantity of individuals who will contribute to the knowledge and evidence that drives best practice in physical rehabilitation.
ROLE: Principal Investigator

Co-Investigator
1R15HD94194-01A1 (Knarr) 9/15/18-8/31/2021 0.40 academic
NIH/NICHD $308,758 Year 1/direct
Impact of Assistive Device Use During Treadmill and Overground Walking Post-stroke
The objective of this study is to understand the specific impact of assistive devices on propulsive force, a key variable in increasing walking function, after stroke.
ROLE: Co-Investigator

W81XWH-18-1-0502 (Arch) 8/15/2018-8/14/2022 0.60 academic
Department of Defense $110,597 Year 1/direct
Objective Clinical Prescription of Passive-Dynamic Ankle-Foot Orthoses to Optimize Patient Outcomes
This study will improve treatment and outcomes and lead to reductions in health care costs for one of the largest Veterans patient populations
ROLE: Co-Investigator

1R01HD093694-01 (Boyne) 04/03/2018 – 02/28/2023 1.85 academic, 0.81 summer
NIH/NICHD $549,495 Year 1/direct
High-Intensity Interval Training to Recover Walking Post-Stroke: HIT-STROKE Trial
The objective of this proposal is to determine the optimal training intensity and the minimum training duration needed to maximize immediate improvements in walking capacity in chronic stroke.
ROLE: Site PI

Completed

1. NSF 1638007 NRI: Goal-Oriented, subject-Adaptive, robot-assisted Locomotor Learning (GOALL). 09/01/2016 – 08/31/2019 . Principal Investigator: Sergi, Co-Investigator: Reisman

2. AHA 17MCPRP33670446 Priming the Brain for Stroke Recovery: Optimizing the Neurotrophic Effects of Aerobic Exercise; 7/1/17 - 6/30/19. Principal Investigator: Pierce Boyne, Co-investigator: Darcy Reisman.

3. 16A00377 Delaware Economic Development Office; Rehabilitation interventions that optimize post-stroke recovery; $99,830 /direct; 10/1/2015-12/31/2017. Principal Investigator: Darcy Reisman

4. R01 NS035032 Organization of a simple synergy
   19,517 (sub contract only); Funding period: 2/1/06-1/31/2016. Principal Investigator: Mark Latash, Co-Investigator: Darcy Reisman

5. 1R21HD071042-01A1 Interventions to Improve Physical Activity after Stroke
   $420,750; Funding Period: 4/1/2012-3/31/2014. Principal Investigator: Darcy Reisman, Co-Investigator: William Farquhar

6. 5P20RR016472-12 and 8P20GM103446-12 Delaware INBRE sub-project: Motor Learning After Stroke, $154,285; Funding period: 3/1/2012-2/28/2014. Principal Investigator: Darcy Reisman, Co-Investigator: Stuart Binder-Macleod.

7. NIH 1R01NR010786-01 Fast Treadmill Training and Functional Electrical Stimulation (FastFES) to Improve Walking Post-stroke, $2,231,992.00 Funding period: 9/12/2007-5/31/2012 (NCE until 5/31/13). Principal Investigator: Stuart Binder-Macleod, Co-Investigators: Darcy Reisman, Katherine Rudolph, William Farquhar, Jill Higginson.

8. 1R01NS055383-01A2 Muscle Morphology, Strength and Compensatory Strategies Following Stroke, $214,461/yr Funding period: 4/1/08-11/30/12 (NCE until 11/30/13). Principal Investigator: Jill Higginson, Co-Investigators: Darcy Reisman, Stuart Binder-Macleod, Thomas Buchanan.
9. K01 HD050582-01A1 Locomotor Adaptations Following Stroke, $604,015 Funding period: 4/20/06-3/31/2011. Principal Investigator: Darcy Reisman (9.0 pm), Primary Mentor, Amy Bastian, Secondary Mentor, Lynn Snyder-Mackler.
10. University of Delaware Research Foundation Strategic Initiatives Grant Neurobiological Factors and Motor Learning Following Stroke, $45,000; Funding period: 12/1/2010-5/31/2011. Principal Investigator: Darcy Reisman, Co-Investigator: Kathleen Matt.

11. AHA 0765314U Relationship Between Speed and Walking Function Post-stroke, $100,000, Funding period: 7/1/2007-6/30/2009. Principal Investigator: Darcy Reisman (1.8 pm), Co-Investigators; Katherine Rudolph, William Farquhar.

12. NIH/NCRR 1S10RR22396-01 Motion Analysis System for Study of Human Movement Dysfunction, $222,492, Principal Investigator: Lynn Snyder-Mackler, Co-Investigators: Darcy Reisman, Katherine Rudolph, John Scholz, Irene Davis. Funding period: 4/01/2006-3/31/2007.
13. R21 HD047468-01 Smart Knee Brace, $275,000, Principal Investigator: Katy Rudolph, Co-Investigators: Darcy Reisman (20% effort), Stuart Binder-Macleod, Jian-Qiao Sun. Funding period: 9/1/04-8/31/06.

Mentored Grants
Current:
1. Miller, Allison. Reisman, DS. (Mentor). Unidel Distinguished Graduate Scholars Award, 2018-2023 ($32,000 + tuition/year).

2. Miller, Allison. Reisman, DS. (Mentor). Foundation for Physical Therapy Research Promotion of Doctoral Studies I. Pre-doctoral Training Grant, 2020 ($7,500)

Completed:

3. French, Margaret. Reisman, DS. (Mentor). NIH 1 F31 NS111806-01A1 Factors impacting locomotor learning following stroke, 12/2019-12/2021.

4. Tyrell, Christine. Reisman, DS. (Mentor). Foundation for Physical Therapy Florence Kendall Doctoral Scholarship, 2007 ($5,000).

5. Kesar, Trisha. Reisman, DS. (Mentor). American Heart Association Clinical Research Grant (AHA 11CRP5120025), Understanding the Time Course and Magnitude of Motor Learning During Gait Rehabilitation. 2011 –2012 ($109,868).

6. Helm, Erin. Reisman, DS. (Mentor). T32 pre-doctoral training award: T32 HD007490. Mechanisms of Motor Learning and Brain Plasticity Post Stroke, 2011-2015.

7. French, Margaret. Reisman, DS. (Mentor). Foundation for Physical Therapy Florence Kendall Doctoral Scholarship, 2016 ($5,000).

8. French, Margaret. Reisman, DS. (Mentor). Foundation for Physical Therapy Promotion of Doctoral Studies I. Pre-doctoral Training Grant, 2018 ($7,500).

9. French, Margaret. Reisman, DS. (Mentor). Foundation for Physical Therapy Promotion of Doctoral Studies II. Pre-doctoral Training Grant, 2019 ($15,000).

10. Miller, Allison. Reisman, DS. (Mentor). Foundation for Physical Therapy Florence Kendall Doctoral Scholarship, 2018 ($5,000).

11. French, Margaret. Reisman, DS. (Mentor). University of Delaware Doctoral Fellowship, 2019-2020 ($28,000 + tuition).

Peer-reviewed abstracts and presentations

1. Thompson E, Reisman D. "Relationship between multiple chronic comorbidities and functional outcome in stroke survivors." APTA Academy of Neurologic Physical Therapy Annual Meeting, 9/8-11/22/21 (virtual format).
2. Hedrick E, Buffum R, Reisman DS, Bierner S, Knarr BA. Functional Level Impacts the Use of Assistive Devices for Individuals Post-Stroke, American Society of Biomechanics, August 2021 (virtual format).
3. McCartney KM, Thompson E, Octavia J, Wright T, Wright H, Reisman DS. “What Do Maximal Aerobic Capacity Tests Tell Us in People with Chronic Stroke?” Platform presentation. American Physical Therapy Association Combined Sections Meeting

(virtual format), February 2021.

4. Thompson E, Grenet D, Arcodia M, Reisman D. “Factors influencing split-belt treadmill adaptation in people with Parkinson's disease.” American Physical Therapy Association, Combined Sections Meeting, (virtual format), February 2021.
5. Miller, A; French, MA; Pohlig, R; Reisman, DS. Depressive Symptoms Impact the Relationship between Physical Capacity, Self-efficacy, and Participation in Stroke Survivors. American Physical Therapy Association Combined Sections Meeting (virtual format), February 2021.
6. Miller, A; Wright, T; Wright, H; Thompson, E; Pohlig, R; Reisman, DS. Readiness to Change is Related to Daily Stepping, Depressive Symptoms, and Area Deprivation in Stroke. American Physical Therapy Association Combined Sections Meeting (virtual format), February 2021.
7. French MA, Miller AE, Semrau J, Reisman DS. Moving Beyond the Motor System: Other Factors Influencing Neurorehabilitation After Stroke. Educational session, Combined Sections Meeting of the American Physical Therapy Association (virtual format), February, 2021.
8. Hedrick E., Buffum R, Reisman D, Bierner S, Knarr B. The Interaction of Propulsive Assistive Device to Propulsive Limb Forces During Walking Post-Stroke**.** Biomedical Engineering Society 2020 Virtual Annual Meeting on October 14-17, 2020 (virtual format).
9. Koller CA, Reisman DS, Arch ES. A Case Series Examining the Effects of Wearing a Quantitatively-Prescribed Passive-Dynamic Ankle-Foot Orthosis Compared to Standard-of-Care Ankle-Foot Orthosis. Virtual 44th Meeting of the American Society of Biomechanics, August 2020 (virtual format).
10. Tracy JB, Connor B, Pigman J, Manal, K, Rapp van Roden L, Reisman DS, Crenshaw JC. Stroke Survivors Exhibit Little Total Arm Contribution to Standing, Posterior Balance Reactions, American Society of Biomechanics, August 2020 (virtual format).
11. Hedrick EA, Buffum R, Reisman DS, Bierner S, Knarr BA. The interaction of propulsive assistive device to propulsive limb forces during walking post-stroke. American Society of Biomechanics, August 2020 (virtual format).
12. Boyne PE, Reisman DS. High-Intensity Interval Training in Stroke Rehabilitation: State of the Evidence and Clinical Implications. Educational session, Combined Sections Meeting of the American Physical Therapy Association, February, 2020.
13. Leech KA, Reisman DS, Cherry-Allen KM, Roemmich R. What We've Learned About Learning: Updates in Motor Learning and Clinical Application. Educational session, Combined Sections Meeting of the American Physical Therapy Association, February, 2020.
14. Prosser LA, Dusing SC, Reisman, DS, Adolph KE. The Roles of Variability and Error in Movement Learning: APPT Research Forum. Educational session, Combined Sections Meeting of the American Physical Therapy Association, February, 2020.
15. Stewart ES, Wruble E, Littier HM, Wood JM, Reisman DS. Investing in the Academic Future of Physical Therapy Learners: The Resident Educator. Educational session, Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

16. Wood JM, Kim HE, Reisman DS, Morton SM. The Contribution of Use-Dependent Plasticity to Locomotor Learning, Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

17. French M, Cohen M, Reisman DS. Does cognition predict ability to learn and remember a novel walking pattern in individuals post stroke? Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

18. Miller A, Pohlig D, Reisman DS. Role of Social and Physical Environmental Factors in Walking Activity in Those with Chronic Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

19. Kim H, Reisman DS. How Computational Modeling Can Advance Neurorehabilitation: Insights from Studies of Individuals with Chronic Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

20. Thompson E, Reisman D, Tucker C. Concept Mapping of Patient-Reported Outcomes for Parkinson's Disease to the ICF Model. Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

21. Thompson E, French M, Tucker C, Reisman D. Learning and Saving a New Walking Task in People with Parkinson's Disease. Combined Sections Meeting of the American Physical Therapy Association, February, 2020.

22. French MA, Reisman DS, Heinemann A, Tulsky D, White D. Patient-reported- and Performance-based-measures of Physical Function After Stroke Measure Different Components of Recovery. American Society of Neurorehabilitation Annual Meeting, October 2019.

23. Thompson E, French MA, Tucker C, Reisman DS. Implicit and Explicit Locomotor Learning in People with Parkinson's Disease. American Society of Neurorehabilitation Annual Meeting, October 2019.

24. French MA, Cohen M, Pohlig R, Reisman DS. The Relationship Between Motor and Cognitive Switching During Walking in Stroke Survivors and Age-Matched Healthy Adults. American Society of Neurorehabilitation Annual Meeting, October 2019.

25. French MA, Reisman DS. Can stroke survivors learn and retain a new walking pattern through explicit, strategic locomotor learning? Society for Neuroscience, October 2019.

26. Ray N, Reisman, DS, Knarr B, Higginson J. Response of Chronic Stroke Survivors to Novel User-Driven Treadmill Control. Gait and Clinical Movement Analysis Society, March 2019.

27. Smith B, Lang C, Reisman DS, Winstein C. Moving technology to clinical practice: sensors & real-world activity assessment. Educational session, Combined Sections Meeting of the American Physical Therapy Association, January, 2019.

28. French MA, Reisman DS. Can stroke survivors learn and retain a new walking pattern through an explicit learning task? Combined Sections Meeting of the American Physical Therapy Association, January, 2019.

29. Scholl V, Doren S, Staggs E, Whitesel D, Dunning K, Sultan H, Carl D, Gerson M, Billinger S, Reisman D, Kissela B, Vannest J, Boyne P. Short Versus Long Intervals for High-Intensity Interval Training (HIT) in Chronic Stroke: Within-Session Exercise Responses. Combined Sections Meeting of the American Physical Therapy Association, January, 2019.

30. French MA, Reisman DS. Does cognition predict ability to learn a novel walking pattern in individuals post stroke? American Society for Neurorehabilitation, November 2018.

31. Staggs E, Meyrose C, Westover J, Whitesel D, Hatter K, Reisman D, Carl D, Khoury J, Gerson M, Kissela B, Dunning K, Boyne P. Exercise Intensity Affects Acute BDNF Response Post-Stroke. American Congress of Rehabilitation Medicine Annual Conference, Dallas, TX; October 2018.

32. Hornby TG, Reisman DS, Ward I, Miller A, Scheets P. Clinical Practice Guidelines for Improving Locomotor Function Following Acute-onset Neurological Injury, Educational session, Combined Sections Meeting of the American Physical Therapy Association, February, 2018.

33. French MA, Pohlig R, Reisman DS. The Relationship Between BDNF Val66Met Polymorphism and Functional Recovery in Chronic Stroke Survivors. Combined Sections Meeting of the American Physical Therapy Association, February, 2018.

34. Li X, Charalambous CC, Morton SM, Reisman DS. A Bout of Acute High-Intensity Exercise Alters Corticomotor Excitability Post-Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2018.

35. Wood J, Reisman DS, Drake MP, Morton SM. The Overlap between Perceptions of Cardiovascular Demand and Task Difficulty in Individuals with Chronic Stroke Performing Moderate Intensity Exercise. Combined Sections Meeting of the American Physical Therapy Association, February, 2018.

36. Charalambous C, French MA, Oltmans ER, Morton SM, Reisman DS. Acute High-Intensity Exercise and Locomotor Adaptation After Stroke. American Society for Neurorehabilitation, November 2017.

37. French MA, Reisman, DS. Impact of cognitive information on transfer of locomotor learning. Society for Neuroscience, November 2017.

38. Koller C, Cacciola C, Reisman DS, Arch E. Effects of Personalized Passive-Dynamic Ankle-Foot Orthosis Bending Stiffness on Gait of Individuals Post-Stroke. American Society of Biomechanics, August 2017.

39. Boyne P, Carl D, Whitesel D, Westover J, Meyrose C, Wilkerson J, Khoury J, Gerson M, Seroogy K, Reisman DS, Kissela B, Dunning K. Influence of Aerobic Exercise

Intensity and Mode on the Acute Brain-Derived Neurotrophic Factor Response Post-Stroke: Preliminary Results. Combined Sections Meeting of the American Physical Therapy Association, February, 2017.

40. Awad L, Reisman DS, Binder-Macleod S. Identifying Candidates for Targeted Gait Rehabilitation: Better Prediction through Biomechanics-Informed Characterization. Combined Sections Meeting of the American Physical Therapy Association, February, 2017.

41. Charalambous C, Alcantara C, Morton SM, Reisman DS. Effect of Acute Cardiovascular Exercise on Locomotor Adaptation and Learning After Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2017.

42. Fitzpatrick B, Reoli R, Reisman DS. Standardized Outcome Measures In the Clinic, How Standard Are You? Combined Sections Meeting of the American Physical Therapy Association, February, 2017.

43. Kumar DS, Reisman DS, Galloway JC. Go Baby Go Café': An Immersive Rehabilitation Environment to Improve Functional Outcomes, Quality of Life and Vocational Skills. Combined Sections Meeting of the American Physical Therapy Association, February, 2016.

44. Danks K, Reisman DS. Benefits of an activity monitoring program in conjunction with fast treadmill training in chronic stroke survivors. Combined Sections Meeting of the American Physical Therapy Association, February, 2016.

45. Collins J, Oddo N, Reisman DS. The impact of self-efficacy on steps taken during participation in a treadmill based intervention for those with chronic stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2016.

46. Franke A, Boyne P, Carl D, Reisman D, Brian M, Westover J, Whitesel D, Meyrose C, Dunning K. Inter-rater Reliability of Ventilatory Threshold Determination in Chronic Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2016.

47. Whitesel D, Boyne P, Carl D, Westover J, Meyrose C, Wilkerson J, Khoury JC, Gerson M, Seroogy K, Hatter K, Reisman DS, Kissela B, Dunning K. Effects of Aerobic Exercise Intensity on Novel Blood Biomarkers of Neuroplasticity After Stroke. International Stroke Conference, February 2016, Los Angeles.

48. Pigman J, Conner BC, Reisman DS, Crenshaw JR. Fall-Recovery Training of an Individual with Chronic Stroke: A Case Study on Kinematic Variables. American Society for Biomechanics, August 2016.

49. Conner BC, Pigman J, Reisman DS, Crenshaw JR. Fall-Recovery Training of an Individual with Chronic Stroke: A Case Study on the Neuromuscular Response. American Society for Biomechanics, August 2016.

50. French M, Moore M, Pohlig R, Reisman DS. Self-efficacy mediates the relationship between balance/walking performance, activity, and participation after stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2015.

51. Willy R, Reisman DS. Motor Learning to Retrain Movement Patterns in Injured Runners. Combined Sections Meeting of the American Physical Therapy Association, February, 2015.

52. Helm EE, Matt K, Kirschner K, Reisman DS. Brief high intensity cycling enhances BDNF release and locomotor learning. Poster Presentation Society for Neuroscience, November, 2014.

53. Reisman, DS. Relearning to walk after stroke. Session: Technology, Health and Rehabilitation, World Congress of Biomechanics, July 2014.

54. Reisman, DS. Targeting Specific Post-Stroke Gait Biomechanics to Improve Walking Function. Session: Innovative techniques for improving gait: stroke and cerebral palsy. World Congress of Biomechanics, July 2014.

55. Danks K, Wright T, Roos M, Pohlig R, Matthews E, Farquhar W, Binder-Macleod S, Reisman DS. The Relationship Between the Energy Cost of Transport and Walking Activity in Individuals Post Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2014.

56. Awad LN, Reisman D, Wright T, Binder-Macleod S. The Validity of Using Cross-sectional Relationships to Recommend Deficits to Target During Post-stroke Gait Training. Combined Sections Meeting of the American Physical Therapy Association, February, 2014.

57. Pretzer-Aboff I, Hicks G, Joseph DeRanieri DM, Reisman D. A Unique Community Group Rehabilitative Exercise and Therapy (GREAT) program for people with Parkinson's disease, 3rd World Parkinson's Congress, Montreal, Canada, October 2-4, 2013.

58. Vashista, V., Reisman, D.S. and Agrawal, S.K., Asymmetric Adaptation in Human Walking using the Tethered Pelvic Assist Device (TPAD), *Rehabilitation Robotics (ICORR), 2013 IEEE International Conference on* , June 24-26 2013.

59. Ressler P, Danks K, Roos M, Ciampa J, Reisman D. Using the physical activity scale for individuals with physcial disability in persons with chronic stroke. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

60. Fulk GD, Danks K, Nirider C, Reisman D. Accuracy of body worn sensors in detecting walking activity. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

61. Palmer JA, Binder-Macleod SA, Wright T, Reisman D. Spatiotemporal gait asymmetry, walking efficiency and speed after stroke. Combined Sections Meeting of the American Physical Therapy Association, January 2013.

62. Kesar TM, Reisman D, Binder-Macleod SA. Does one session of gait rehabilitation improve post-stroke walking performance? Combined Sections Meeting of the American Physical Therapy Association, January 2013.

63. Roos M, Rudolph K, Reisman DS. Regardless of walking speed capacity, daily walking duration and intensity is decreased after stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2012.

64. Roos M, Reisman DS, Hicks G, Binder-Macleod S, Rudolph K. Modification of the four square step test and its reliability and validity in people post-stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2012.

65. Tyrell CM, Reisman DS. Locomotor learning is slowed after stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2012.

66. Danks K, Roos M, Reisman DS. A step activity monitoring program improves real world walking activity post stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2012.

67. Helm E, Kirschner K, Matt KS, Reisman DS. Influence of a single nucleotide polymorphism in the BDNF gene on locomotor learning. Poster Presentation Society for Neuroscience, November, 2011.

68. Roos M, Reisman DS, Kesar T, Binder-Macleod S. Development and Testing of a Gait Re-training Intervention for Individuals with Post-stroke Hemiparesis. Annual Meeting of the American Physical Therapy Association, June, 2011.

69. Hornby TG, Lang C, Reisman DS, Moore J. Structuring clinical interventions to maximize motor recovery after stroke and spinal cord injury: the importance of amount, intensity and type of practice. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

70. Haley R, Danks K, Reisman D, Ciolek C. Development of Evidence Based Treatment Guidelines to Increase Task Repetition in Older Adults. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

71. Tyrell C.M., Reisman D.S. Locomotor interlimb coordination adaptability is slowed after stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

72. Kesar T. M., Reisman D.S., Roos M, Perumal R, Farquhar W.B., Binder-Macleod S. Novel locomotor training improves gait performance, activity, and participation in individuals with chronic stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

73. Danks K, Roos M, Reisman DS, Binder-Macleod S. Determining an optimal duration of locomotor training to maximize functional improvements post stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

74. Roos, M; Reisman, D; Rudolph, K; Binder-Macleod, S. A Novel Way to Analyze Step Activity in People Post-Stroke. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.

75. Kumar D, Reisman DS, Swanik CB, Rudolph KS. Neuromuscular Responses to Perturbations during Walking in Knee Osteoarthritis: Influence of Instability, Strength, Proprioception and Stiffness. Presented at American College of Rheumatology Annual Scientific Meeting, Nov, 2010.

76. Hakansson NA, Kesar T, Reisman DS, Binder-Macleod S and Higginson JS. Effects of FastFES Gait Training on Mechanical Recovery in Post-Stroke Gait. Platform Presentation International Functional Electrical Stimulation Society, September, 2010.

77. Malecka C., Reisman DS. Repeated exposure to split-belt treadmill walking reveals differences in learning between stroke survivors and healthy human adults. Poster Presentation Society for Neuroscience, November, 2010.

78. Kesar TM, Permual R, Reisman DS, Rudolph KS, Higginson JS, Binder-Macleod SA. Effects of combining plantar- and dorsi-flexor functional electrical stimulation on post-stroke gait. Poster Presentation Society for Neuroscience, October, 2009.

79. Malecka C, Reisman DS. Adaptation of forces and weight-bearing during walking in persons post-stroke. Poster Presentation Society for Neuroscience, October, 2009.

80. Chou LW, Reisman DS, Binder-Macleod SA, Knight CA. Motor unit discharge behavior in patients with stroke. Poster Presentation Society for Neuroscience, October, 2009.

81. Kesar TM, Perumal R, Reisman DS, Rudolph KS, Higginson JS, Binder-Macleod SA. Effects Of Novel Physiological-Based Functional Electrical Stimulation Patterns On Post-Stroke Gait. Annual Conference of the American Society of Biomechanics, University Park, PA, August 2009.

82. Kesar TM, Jancosko AL, Perumal R, Reisman DS, Rudolph KS, Binder-Macleod SA. Effects of plantarflexor and dorsiflexor functional electrical stimulation on gait patterns of individuals post-stroke. Annual Conference of the American Physical Therapy Association, June 2009.

83. Jancosko AL, Roos M, Kesar TM, Perumal R, Reisman DS, Rudolph KS, Binder-Macleod SA. Fast treadmill walking and electrical stimulation improves structure, function and participation in individuals post stroke: a case series. Annual Conference of the American Physical Therapy Association, June 2009.

84. Malecka C, Rudolph KS, Reisman DS. Spatial and temporal gait parameters respond differently to increased walking speed in chronic stroke survivors. Platform Presentation Combined Sections Meeting of the American Physical Therapy Association, February, 2009.

85. Roos M, Reisman DS, Rudolph KS. Clinical Measures Can Identify Deficits in Speed Modulation in Persons Post Stroke. Platform Presentation Combined Sections Meeting of the American Physical Therapy Association, February, 2009.

86. Malecka C, Reisman DS. Split-belt treadmill locomotion: adaptation of forces and weight-bearing during walking and standing. Poster Presentation Society for Neuroscience, November, 2008.

87. Kautz S, Bastian A, Reisman DS, Patten C. Altering locomotion through learning and conscious control: what are the implications for rehabilitation? Workshop, Neural Control of Movement, May, 2008.

88. Roos M, Rudolph K, Kesar T, Reisman, DS. Systematic increases in walking speed have varied effects on post-stroke walking patterns. Platform Presentation Combined Sections Meeting of the American Physical Therapy Association, February, 2008.

89. Rudolph KS, Reisman DS, Wagner C. The influence of speed on walking function after stroke. International Socitey for Posture and Gait Research. Burlington, VT. July 2007.

90. Reisman DS, Bastian AJ. Generalization of split-belt treadmill walking adaptation to over ground walking. Poster Presentation, Neural Control of Movement, March, 2007.

91. Reisman DS, Wagner C., Cifelli S., Rudolph K., Farquhar W. Self selected walking speeds are energy inefficient post-stroke. Platform Presentation Combined Sections Meeting of the American Physical Therapy Association, February, 2007.

92. Reisman DS., Wityk R., Silver K.,. Bastian, AJ Does split-belt treadmill walking adaptation transfer to over ground walking post-stroke? Poster Presentation, Society for Neuroscience, October, 2006.

93. Reisman, D Bastian A. Split-belt treadmill adaptation and gait symmetry post-stroke. Poster Presentation Combined Sections Meeting of the American Physical Therapy Association, February, 2006.

94. Reisman D, Wityk R, Bastian A. Split-belt treadmill walking adaptation in post-stroke hemiparesis. Poster Presentation, Society for Neuroscience, November, 2005.

95. Reisman DS, Block, H, Bastian AJ. Split-belt locomotion: adaptation and after-effects from short-term training. Poster Presentation, Society for Neuroscience, October, 2004.

96. Reisman DS, Scholz, JP. The influence of workspace location on the kinematics of seated reaching in persons with hemiparesis. Poster Presentation, North American Society for the Psychology of Sport and Physical Activity, June, 2004.

97. Reisman DS, Scholz, JP. Joint and surface force coordination during reaching motions involving the trunk in persons with hemiparesis. Platform Presentation, Combined Sections Meeting of the American Physical Therapy Association, February, 2003.

98. Reisman DS, Scholz, JP. Differences in coordination of joint motion timing in persons with hemiplegia and healthy persons during a seated, reaching task. Platform Presentation, Combined Sections Meeting of the American Physical Therapy Association, February, 2002.

99. Tseng Y Reisman DS, Yang JF, Schöner G, Scholz JP. Joint coordination underlying the control of a pointing task with and without vision. Progress in Motor Control III, conference abstracts, August, 2001.

100. Reisman DS, Yang JF, Tseng Y, Scholz JP. Joint coordination underlying the control of a pointing task in healthy and hemiparetic persons. Poster Presentation, Progress in Motor Control III, August, 2001.

101. Reisman DS, Scholz, JP. Effects of varying perceptual information on the control of body momentum in a sit-to-stand task. Platform Presentation, Combined Sections Meeting of the American Physical Therapy Association, February, 2001.

102. Reisman, DS, Scholz, JP. Effect of task constraints on coordination of sit to stand. Poster Presentation, Combined Sections Meeting of the American Physical Therapy Association, February, 2000.

103. Schwartz D., Giroux, J., Neva, R., Sunsdahl, B. EMG and Mechanical Analysis of Focal and Postural Muscle Activity in Hemiplegic and Healthy Subjects During a Reaching Task. Poster Presentation at the Annual Conference of the American Physical Therapy Association, June, 1993.

Invited Presentations

National/International

1. “Step activity in persons with chronic stroke”, Gait and Clinical Movement Analysis Society Annual Meeting, June 8, 2021.
2. “Strategies for a successful DPT-PhD dual degree program”, American Council of Academic Physical Therapy, sponsored by Research Intensive Programs in Physical Therapy, May, 2021.

3. “Factors Impacting Locomotor Learning After Stroke”, Moss Rehabilitation Research Institute Forum, April 2021.
4. “Recovery of walking and activity after stroke: insights gained from motor learning and applied interventions”, University of Florida Neuromechanics seminar series, November, 2020.
5. “Recovery of real-world walking activity following stroke”. 41st Annual Neurorehabilitation Conference- Encompass Health, Braintree Rehabilitation, November, 2020.
6. “Locomotor learning after stroke”. 41st Annual Neurorehabilitation Conference- Encompass Health, Braintree Rehabilitation, November, 2020.
7. “Recovery of walking and activity after stroke: insights gained from motor learning and applied interventions”, Boston University Physical Therapy & Athletic Training Grand Rounds, November 2019.
8. “Motor Learning after Stroke”, Penn State University, Action Club Seminar, April, 2019.
9. “Locomotor clinical guidelines for patients with neurologic conditions”, Ann Gentile Memorial Conference, Columbia University, April 2019.
10. “Motor Learning after Stroke”, University of Maryland Physical Therapy and Rehabilitation Science Seminar series, March 22, 2019.
11. “Motor Learning in Neurologic Physical Therapy”, Integrating Current Evidence into Neurologic PT Educational Programs, Pre-conference Educational Program, Combined Sections Meeting of the American Physical Therapy Association, January, 2019.
12. “Promoting Mobility Recovery Following Stroke”, National Rehabilitation Hospital/ Georgetown University Center for Brain Plasticity and Recovery seminar series, January 16, 2019.
13. “Facilitating Walking Recovery after Stroke through Research: The Perspective of a Clinician-Scientist”, University of Florida and Brooks Rehabilitation Neuromuscular Symposium, May 7-8, 2018.
14. “Promoting walking recovery after stroke through interdisciplinary and collaborative science”, Georgetown University, Interdisciplinary Program in Neuroscience Seminar Series, April 17, 2018.
15. “Advances in Physical Therapy for Stroke” at the Advances in Stroke and Foundations of Neurologic Practice 2017, University of Pennsylvania, November 2, 2017.
16. “Promoting Mobility Recovery after Stroke through Interdisciplinary and Collaborative Research.” Keynote Speaker: 2017 Human Movement Science & Biomechanics Symposium at the University of North Carolina at Chapel Hill, March 31st, 2017.
17. “Facilitating Recovery from Stroke through Research: The Benefits of Interdisciplinary and Collaborative Science.” Center for Research in Human Movement Variability Seminar Series, University of Nebraska, March 17, 2017.
18. “Data Entry and Management”. Linblad A, Reisman DS. NCMRR/REACT Center Clinical Trials Workshop, National Institutes of Health, September 2016.
19. “Locomotor Adaptation and Learning after Stroke”. The 12th Karniel Computational Motor Control Workshop, Ben-Gurion University of the Negev, June, 2016.
20. “Motor Control and Learning After Neurologic Injury: Basic Principles to Clinical Application”. Two-day workshop sponsored by the Israeli Physiotherapy Association at Ben-Gurion University of the Negev, June, 2016.
21. “Promoting motor learning after stroke: The potential role of genetic variation in brain-

derived neurotrophic factor". Neural Control of Movement Satellite Symposium, April, 2015.

22. "Early Career Workshop: Mock Study Section". Neurology Section. Combined Sections Meeting of the American Physical Therapy Association, February, 2015.
23. "Student/Researcher Roundtable". Reisman DS, Sinacore D; Speakers. Eastlack, M.; Moderator. Section on Research. Combined Sections Meeting of the American Physical Therapy Association, February, 2015.
24. "Task Specific Practice in Neurorehabilitation". 35th Annual Neurorehabilitation Conference, Braintree Rehabilitation, Nov. 8-9, 2014.
25. "Recovery of Walking after Stroke", 35th Annual Neurorehabilitation Conference, Braintree Rehabilitation, Nov. 8-9, 2014.
26. "Post-stroke walking recovery: from locomotor learning to real-world walking activity", University of Florida Department of Physical Therapy Rehabilitation Research Seminar, February 27, 2013.
27. "Writing with the Editors", Moderator. Combined Sections Meeting of the American Physical Therapy Association, January, 2013.
28. "Locomotor Learning after Stroke", University of Illinois-Chicago, Department of Physical Therapy, April, 2012.
29. "Designing Gait Training Interventions for Indiviuals with Stroke: Rationale and Clinical Decision-Making for Assistance, Trial and Error Practice and Error Augmentation", Rehabilitation Institute of Chicago, April, 2012.
30. "Writing with the Editors", Moderator. Combined Sections Meeting of the American Physical Therapy Association, February, 2012.
31. "Current Concepts in Post-Stroke Gait Rehabilitation", Combined Sections Meeting of the American Physical Therapy Association, February, 2012.
32. "Structuring Clinical Interventions to Maximize Motor Recovery After Stroke and Spinal Cord Injury", New York Physical Therapy Association Annual Meeting, October, 2011.
33. "APA Impact on Chronic Stroke", The Management of Chronicity**:** Exploiting the experience of 5-year administration of Adapted Physical Activity, Rome, Italy, October, 2011.
34. "Restorative vs. Compensatory Approaches to Rehabilitation: Where does (should) your approach fall on the continuum?" Eugene Michels Forum, Moderator. Combined Sections Meeting of the American Physical Therapy Association, February, 2011.
35. "Locomotor inter-limb coordination in post-stroke hemiparesis", Sensory Motor Performance Program Seminar Series, Rehabilitation Institute of Chicago, March, 2006.
36. "Locomotor Adaptation Following Stroke", National Rehabilitation Hospital, Center for Applied Biomechanics and Rehabilitation Research Seminar Series, October 10, 2005.

<u>Local/Regional</u>

1. "Recovery of Functional Mobility after Stroke". ACCEL Innovative Discovery Series. February 28, 2020.
2. "Promoting Recovery Optimization with WALKing Exercise after Stroke (PROWALKS)". Neurology Grand Rounds. Christiana Care Health System, Newark, DE, August, 2018.
3. "Advances in locomotor training after stroke". Cadia Rehabilitation, Middletown, DE, January, 2018.

4. “Advances in locomotor training after stroke”. Cadia Rehabilitation, Newark, DE, December 2017 and Cadia Rehabilitation, Middletown, DE, January, 2018.
5. “Improving real world activity after stroke: the importance of social, cognitive and physical factors”. Good Shepherd/Penn Partners Neuro Special Interest Group, June 2017.
6. “Facilitating Recovery from Stroke through Research: The Benefits of Interdisciplinary and Collaborative Science.” Blue Hen Tribute to Dr. John P. Scholz. University of Delaware, October 21, 2016.
7. “Stroke Rehabilitation: Neuroplasticity and Motor Learning”. Christiana Health Care Neurovascular Symposium, April 2015.
8. “Monitoring and encouraging real world walking activity after stroke”, Delaware Stroke Initiative Annual Conference, October, 2013.
9. “G-Codes- Implementation”, Christiana Health Care Center, May 21, 2013.
10. “Physical Therapy in Stroke Rehabilitation”, Delaware Stroke Initiative Annual Conference, October, 2012.
11. “Physical Therapy for the Person Post-Stroke: From Principles of Neuroplasticity to Cutting Edge Interventions”, Pennsylvania Physical Therapy Association Annual Meeting, October, 2011.
12. “Community Based Exercise Programs for Brain Injury Survivors; Research and Reality” Brain Injury Association of Delaware, March, 2011.
13. “Recovery of Walking after Stroke”, University of Delaware Academy of Lifelong Learning Medical Lecture Class, November, 2010.
14. “Locomotor Recovery Following Stroke”, Christiana Center for Outcomes Research Lunch and Learn Lecture Series, March, 2009.
15. “Physical Motor Learning and Stroke”, Delaware Stroke Initiative Annual Stroke Conference, September, 2008.
16. “Locomotor Adaptation Following Stroke”, University of Maryland-Baltimore, Physical Rehabilitation Science Graduate Program Seminar Series, February, 2006.
17. “Exercise and the Older Adult”, Geriatric Medicine Symposium, Delaware Academy of Family Physicians, December, 2005.
18. “Physical Therapy and Stroke Rehabilitation”, Delaware Stroke Intitiative’s 5th Annual Stroke Education Conference, October, 2005.
19. “Physical Health in Retirement”, Peninsula United Methodist Homes’ 50th Anniversary celebration, September, 2004.

Service

National Service

- American Physical Therapy Association - Neurology Section Research Committee Member, 2006-2012
- American Physical Therapy Association - Neurology Section Abstract Reviewer Combined Sections Meeting, 2006-2011
- American Physical Therapy Association - Section on Research Awards Committee Member, 2009-2012

- Clinical Practice Guideline Development Group for the Clinical Practice Guideline: Specific Training Parameters for Walking Recovery in Adults with Chronic Stroke, Spinal Cord Injury and Traumatic Brain Injury. Sponsored by the Academy of Neurologic Physical Therapy, American Physical Therapy Association. March 2015-present.
- External Advisor – Brooks Rehabilitation – UF-College of Public Health and Health Professions Research Collaboration, 2018-present
- NIH Stroke Recovery Workshop Steering Committee, May 2018-November 2018
- American Physical Therapy Association – Essential Resources Strategy Group-Education, September 2019
- NINDS/NICHD NeuroRehab CDE Working Group, July 2020-present

Editorial Board Membership
- Physical Therapy, July 2013-December 2018
- Journal of Neurologic Physical Therapy, 2010- December 2016

Associate Editor
- Journal of Neurologic Physical Therapy, December 2016-present
- Neurorehabilitation and Neural Repair, January 2018-present

Grant Review Panels
- NIH MFSR Motor Function, Speech and Rehabilitation Study Section, standing member 7/2020-present
- NIH ZRG1 F10B-B (20) (Fellowship) and ZRG1 MOSS-B (82)A (R15) special emphasis panel, March 2020
- NIH NSD-K Neurological Sciences and Disorders K Study Section, July 2019
- NIH CHHD-K 2 Function, Integration, and Rehabilitation Sciences Subcommittee, NCMRR Early Career Research Award (R03), June 2019
- NIH MFSR Motor Function, Speech and Rehabilitation Study Section, June, 2019
- NIH ZRG1 MOSS-V(15) MRS:Small Business Panel, March 2019
- NIH MFSR Motor Function, Speech and Rehabilitation Study Section, June, 2018
- NINDS ZNS1 SRB G(17) Special Emphasis Panel, February, 2018
- NIH NINDS ZNS1 SRB G12 Special Emphasis Panel, April 2017
- Veterans Administration Rehabilitation Research and Development Scientific Merit Review Board, Brain Injury: TBI and Stroke Panel, ad hoc member, March, 2017
- American Heart Association, Behavioral CL1 grant review panel, April, 2016
- NIH MFSR Motor Function, Speech and Rehabilitation Study Section, October, 2015
- American Heart Association, Behavioral Science (Intervention/Prevention) grant review panel, September, 2015
- NIH ZRG1-MOSS-U82 Special Emphasis Panel, October, 2014
- NIH NINDS G78/NSD-K Special Emphasis Panel, June, 2014
- Veterans Administration Rehabilitation Research and Development Scientific Merit Review Board, Brain Injury: TBI and Stroke Panel, 2011-2014
- NIH NINDS: Special Emphasis Panel Stroke Trials Network, August, 2013
- American Heart Association: Bioengineering Clinical Peer Review Study Group, April, 2013.

- Ad Hoc Grant Reviewer – Austrian Science Fund, 2012

University Service

- BIOMS Qualifying Examination Development Committee, 2010-2011
- College of Health Sciences Strategic Planning-Research, 2011-present
- College of Health Sciences Awards Committee, 2011-May 2015
- College of Health Sciences Research Review Committee, 2011-2012
- College of Health Sciences Representative to Faculty Senate, 2012-2016
- Organizing Committee, Center for Biomedical Engineering Research (CBER) 2013 Research Symposium
- Kinesiology and Applied Physiology Faculty Search Committee, 2013
- Medical Laboratory Sciences Chairperson Search Committee, Fall 2014
- Models for the New American Research University, Infrastructure Working Group, University Strategic Planning Initiative, 2014-2015
- Communication Sciences and Disorders Faculty Search Committee, Spring 2016
- Advisory Board to the President on Board of Trustees Bylaws Article 3; Spring, 2016
- Kinesiology and Applied Physiology Faculty Search Committee, Fall, 2016
- College of Health Sciences Sr. Sponsored Programs Coordinator Search Committee, Fall 2016, Fall, 2017
- INBRE Research Development Committee, April 2017-present
- College of Health Sciences Research Advisory Council, 2017-present
- Biomechanics and Movement Science Program Policy review committee, May 2018-present
- Clinical Research Working Group, November 2018-2020
- Biomechanics and Movement Science Course committee, October 2018-present
- Delaware to the World Presenter, February 2019
- Chairperson, Registry and Clinical Research Software RFP committee, January 2020-June 2020
- UD Health Clinical Working Group, April 2021-present
- Search Committee, UD Health Clinics Chief Operating Officer, July 2021- present

Department Service

- Academic Director, Neurologic and Older Adult Physical Therapy Clinic, 2004-present
- Physical Therapy Research Retreat Planning Committee, 2008
- Physical Therapy Awards Committee Chairperson, 2011-2017
- Faculty Mentor, Neurologic Physical Therapy Residency Program, 2011-present
- Physical Therapy Faculty Search Committee, 2012
- Physical Therapy Chairperson Search Committee, 2013
- Physical Therapy Business Administrator II Search Committee, Fall 2015
- Physical Therapy Department Faculty Search Committee, Fall & Spring 2016-17
- Physical Therapy Chairperson Search Committee, 2018
- Chair, Scholarship and Research Innovation Working Group- January 2018-present
- Member, Research Vision Working Group- January 2018-December 2018

- Member, Curricular Content-Basic Evaluation Working Group-January 2018-December 2018
- Member, Curricular Content-Teaching Evaluation Working Group-January 2018-present
- Member, ICE recalibration working group-Fall, 2018-present
- Search Committee, Neurologic and Older Adult Physical Therapy Clinic, Clinic PT position, Fall 2018
- Search Committee, Sports and Orthopedic Physical Therapy Clinic, PT Educator position, Fall 2018

Students and Trainees

Primary Mentor

- Kiersten McCartney, Biomechanics and Movement Sciences (PhD student), University of Delaware (current)
- Allison Miller, Biomechanics and Movement Sciences (PhD student), University of Delaware (current)
- Margaret French, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed February 2021)
- Elizabeth Thompson, DPT PhD, Post-doctoral researcher (completed January 2020)
- Charalambous, Charalambos, PhD Post-doctoral Researcher (completed, January 2018)
- Erin Helm, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed June 2015)
- Daniela Mattos (co-advisor), Biomechanics and Movement Sciences (PhD student), University of Delaware (completed May 2015)
- Eunse Park, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed July 2014)
- Christine Malecka, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed May 2013)
- Trisha Kesar, Post-doctoral Researcher (completed 2012)

Co-mentor

- Xin Li, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed May 2018; Co-mentored with Susanne Morton)
- Carolina Carmona de Alcântara, PT (PhD student), studying in Reisman lab January 2016-January 2017 on a Brazilian FAPESP grant (completed January 2018; primary mentor while in US)
- Lou Awad, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed December 2016; Co-mentored with Stuart Binder-Macleod)

Committee Member

- Yashar Aucie, Bioengineering (PhD student), University of Pittsburgh (current; Advisor, Gelsy Torres-Oviedo)
- John Collins, Biomechanics and Movement Sciences (PhD student), University of Delaware (current; Advisor, Steven Stanhope)
- Corey Koller, Biomechanics and Movement Sciences (PhD student), University of Delaware (current; Advisor, Elisa Arch)
- Kelsey Bryk, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed 1/2021; Advisor, Tom Buckley)
- Nicole Ray, Mechanical Engineering (PhD students), University of Delaware (completed 11/2020; Advisor, Jill HIgginson)
- Feld Jody, PhD, Human Movement Science Program, University of North Carolina (completed 8/2019; Advisor, Prudence Plummer).
- Jamie Pigman, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed 3/2019; Advisor, Jeremy Crenshaw)
- Avantika Naidu, Rehabilitation Sciences, (PhD student), University of Alabama Birmingham (completed 5/2019; Advisor, Dave Brown)
- Devina Kumar, Biomechanics and Movement Sciences (PhD student), University of Delaware (completed 11/18; Advisor, Cole Galloway)
- Bryce Muth, Applied Physiology (PhD student), University of Delaware (completed 11/18; Advisor, Dave Edwards)
- Drew Peterson, Biomechanics and Movement Sciences (Master's student), University of Delaware (completed 10/18; Advisor, Jeremey Crenshaw)
- Erin Futrell, Rehabilitation Sciences, (PhD student), MGH Institute of Health Professions (completed 4/18; Advisor, Irene Davis)

- Peter Coyle, PhD**,** Biomechanics and Movement Sciences, University of Delaware (completed 4/17; Advisor, Greg Hicks)
- Elena Kokkoni, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 12/16; Advisor, Cole Galloway)
- Nicole Zahradka, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 8/16; Advisor, Sam Lee)
- Sumayah Abujaber, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 12/14; Advisor, Joe Zeni)
- Shraddha Srivastava, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 8/14; Advisor, Jill Higginson)
- Kathleen White, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 9/14; Advisor, Lynn Snyder-Mackler)
- Clint Wutzke, PhD, Human Movement Science Program, University of North Carolina (completed 6/14; Advisor, Mike Lewek).
- John Ramsay, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 8/14; Advisor, Jill Higginson & Tom Buchanan).
- Melynda Schreiber, MS, Biomechanics and Movement Sciences, University of Delaware (completed 8/13; Advisor, Cole Galloway)
- Amy Lenz, MS, Mechanical Engineering, University of Delaware (completed 5/12; Advisor, Jill Higginson)
- Brian Knarr, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 3/12; Advisor, Jill Higginson).
- Geetanjali Gera, PhD, Biomechanics and Movement Sciences, University of Delaware (completed; Advisor, John Scholz)
- Margie Roos, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 9/11; Advisor, Katherine Rudolph).
- Rebecca Fellin, PhD, Biomechanics and Movement Sciences, University of Delaware (Completed 8/11; Advisor, Irene Davis).
- Douglas Savin, PhD, Physical Rehabilitation Science, University of Maryland (completed 2/11; Advisor, Susanne Morton, Jill Whitall)
- Deepak Kumar, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 8/10; Advisor, Katherine Rudolph).
- Trisha Kesar, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 3/09; Advisor, Stuart Binder-Macleod).
- Ming Xiao, PhD, Mechanical Engineering, University of Delaware (completed 6/09; Advisor, Jill Higginson).
- Wei-Li Hsu, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 3/08; Advisor, John Scholz).
- Sara Farquhar, PhD, Biomechanics and Movement Science, University of Delaware (completed 6/08: Advisor, Lynn Snyder-Mackler).
- Megan Wenner, PhD, Biomechanics and Movement Sciences, University of Delaware (completed 1/09; Advisor, Bill Farquhar).
- Michael Ward, MS, Health and Exercise Science, University of Delaware (completed 8/10; Advisor, Bill Farqhuar)

- Ben Roewer, MS, Mechanical Engineering, University of Delaware (completed 2/10; Advisor, Jill Higginson)
- Geetanjali Gera, MS, Biomechanics and Movement Sciences, University of Delaware (completed 5/09; Advisor, John Scholz)
- Allsion Altman, MS, Biomechanics and Movement Sciences, University of Delaware (completed 4/09, Advisor, Irene Davis)
- Debbie George, MS, Mechanical Engineering, University of Delaware (completed 12/07; Advisor, Jill Higginson)
- Hui Min Li, MS, Biomechanics and Movement Sciences, University of Delaware (completed 11/06; Advisor, Cole Galloway)
- Andrew Davison, MS, Department of Mechanical Engineering, University of Delaware (completed 8/06; Advisor, Jian Sun).

UD Undergraduate Research Advisor:

Stacey Cifelli- Peter White Fellow (completed), Jennifer Breithupt – Peter White Fellow (completed), Jill McElligott – Peter White Fellow (completed), Dana McCoy – Peter White Fellow (completed), Shreya Jammula – Peter White Fellow (completed), Lucas Brady - INBRE Fellow(completed), Jennifer Byrnes –INBRE Fellow (completed), Menki Chen-–INBRE Fellow (completed), Justin Pepper-DRI Fellow (completed); Ania Lipat, UD REU fellow (completed), Emmeline Oltmans, Peter White Fellow (completed); Timothy Gouge, INBRE scholar (completed); Mykel Jenkins, INBRE scholar (completed), Joseph Ragan, INBRE scholar (completed)

Member UD Undergraduate Senior Thesis Committee: Jason Schoenfeld, completed.

Member UD Undergraduate Senior Thesis Committee: Chris Wagner, completed 12/06.

Honors and Awards

- *Catherine Worthingham Fellow of the American Physical Therapy Association*, 2020
- *Mid-Career Excellence in Scholarship,* University of Delaware, May 2018
- *College of Health Science's Researcher of the Year,* University of Delaware, 2017
- *Golden Synapse Award,* honors the most outstanding article published each year, Journal of Neurologic Physical Therapy, 2016
- *Research Summit Award,* Delaware INBRE, 2015
- *Nominee*; *Eugene Michels New Investigator Award,* American Physical Therapy Association, 2008

- *Nominee; Margaret L Moore Award for Outstanding New Academic Faculty Member*, American Physical Therapy Association, 2007
- *Graduation Speaker*; University of Delaware Department of Physical Therapy, January, 2006
- *Recipient; University of Delaware Competitive Fellowship*, Academic year 2002-2003
- *Recipient; University of Delaware Competitive Fellowship*, Academic year 2001-2002
- *Recipient; Mary McMillan Doctoral Scholarship* 1999-2000 academic year

Professional Memberships/Certifications

- Licensed Physical Therapist since 1993, current licensure in the state of Delaware #J1-0001393, exp. 1/31/2021
- American Physical Therapy Association; May, 1993-present, Neurology, Research Sections.
- Society for Neuroscience: March 2004-present
- American Society of Neurorehabilitation: 2018-present.

Teaching

Fall 2006
PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 30 students
Co-taught with John Scholz
18 hours of lecture and 27 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Spring 2007
PHYT 633 Applied Physiology II
Taught 6 hours lecture/lab on Proprioceptive Neuromuscular Facilitation

Fall 2007
PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 30 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Fall 2008
PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 32 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Spring 2009

PHYT 633 Applied Physiology II
Taught 6 hours lecture/lab on Proprioceptive Neuromuscular Facilitation

Fall 2009

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 30 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Spring 2010

PHYT 633 Applied Physiology II
Taught 6 hours lecture/lab on Proprioceptive Neuromuscular Facilitation

Fall 2010

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 32 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Spring 2011

PHYT 633 Applied Physiology II
Taught 6 hours lecture/lab on Proprioceptive Neuromuscular Facilitation

Fall 2011

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 30 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT805 Rehabilitation – 4 credits – 30 students
Course coordinator
3 hours/week lecture and administration

Spring 2012

PHYT 633 Applied Physiology II
Taught 3 hours lecture/lab on multi-joint, multi- plane therapeutic exercise

Fall 2012

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 32 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT805 Rehabilitation – 4 credits – 32 students
Course coordinator
3 hours/week lecture and administration

Spring 2013

PHYT 633 Applied Physiology II
Taught 3 hours lecture/lab on multi-joint, multi- plane therapeutic exercise

Fall 2013

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 32 students
Co-taught with John Scholz
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT624 Basic Evaluation Techniques
2 hours of lecture/lab on cognition and coordination

Fall 2014

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 32 students
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT624 Basic Evaluation Techniques
2 hours of lecture/lab on cognition and coordination

Spring 2015

MEDT 800, Preparing Research Proposals
1 hour lecture on preparing NIH grant proposals

Fall 2015

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 60 students
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT803 — Medical Science III – Neurology
Coordination of two 2-hour lectures with outside expert

Spring 2016

MEDT 800, Preparing Research Proposals
1 hour lecture on preparing NIH grant proposals

Fall 2016

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 60 students
24 hours of lecture and 24 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT803 Medical Science III – Neurology
Coordination of two 2-hour lectures with outside expert

BMSC865 Seminar
Lectured in 2 seminars

Spring 2017

MEDT 800, Preparing Research Proposals
1 hour lecture on preparing NIH grant proposals

Fall 2017

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 60 students
54 hours of lecture and 30 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

Spring 2018

PHYT623 — Clinical Neuroscience
3 hour lecture on principles of neuroplasticity and motor learning

Fall 2018

PHYT804 Neurophysiologic Evaluation and Treatment – 4 credits – 60 students
54 hours of lecture and 30 hours of lab related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease

PHYT624 Basic Evaluation Techniques
Co-taught two 3 hour lecture/labs on evaluation of balance

Fall 2019

PHYT804 Neurophysiologic Evaluation and Treatment

21 hours of lecture related to the evaluation and treatment of gait, balance and transfer disorders in persons with neurologic damage or disease