

**Chris J. Hass****ADDRESS**

Department of Applied Physiology and Kinesiology  
 University of Florida  
 Center for Movement Disorders and Neurorestoration  
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**EDUCATION**

**Ph.D.** University of Florida, Dec 2001  
 Concentration: Biomechanics  
 Minor: Rehabilitation Science/Physical Therapy  
 Chairs: John Chow, Ph.D., Jim Cauraugh, Ph.D.,  
 Dissertation: "Lower extremity kinetic chain during locomotion and landings: Relations to mechanisms of knee injury."

**M.S.** University of Florida, 1998  
 Major: Exercise Science  
 Specialization: Exercise Physiology  
 Advisor: Michael L. Pollock, Ph.D.  
 Thesis: "The effects of resistance training volume on improvements in muscular strength, endurance and body composition in resistance trained adults."

**B.S.** Furman University, 1996  
 Major: Biology  
 Major: Health and Exercise Science

**PROFESSIONAL EXPERIENCE****Professor and Graduate Coordinator**

University of Florida, Department of Applied Physiology and Kinesiology  
 August 2016-

Courses taught: Biomechanical Basis of Human Movement, Evaluation Procedures, Research Methods, Biomechanical Instrumentation, Controlling Motor Actions, Neuromechanics of Gait, Planning Motor Actions, and Biobehavioral Seminar.

**Associate Professor**

University of Florida, Department of Applied Physiology and Kinesiology  
 August 2011-August 2016

Courses taught: Biomechanical Basis of Human Movement, Evaluation Procedures, Research Methods, Biomechanical Instrumentation, Controlling Motor Actions, Neuromechanics of Gait, Planning Motor Actions, and Biobehavioral Seminar.

**Assistant Professor**

University of Florida, Department of Applied Physiology and Kinesiology  
 2006-2011

Courses taught: Biomechanical Basis of Human Movement, Evaluation Procedures, Research Methods, Biomechanical Instrumentation, and Controlling Motor Actions.

**Assistant Professor**

Columbia University, Teachers College  
 2004-2006

Courses taught: Applied Physiology Lab 1, Advanced Applied Physiology Lab, Neuromuscular Adaptations to Exercise, Neuromechanical Control of Gait and Posture, and Physiologic Aspects of Aging

**Research Scientist II**

Georgia Institute of Technology, School of Applied Physiology  
2002-2004

Courses taught: Kinesiological Basis of Human Movement, Clinical Gait Analysis Laboratory

**Postdoctoral Fellow**

Center for Research on Complementary and Alternative Medicine in Neurodegenerative diseases. Emory  
University College of Medicine, Department of Neurology

September 2001-2004, Trained under Jorge Juncos, Steve Wolf, Mahlon DeLong, Bob Gregor

**HONORS AND AWARDS**

2016- UF CTSI Mentoring Academy, Master Mentor

2016- MJ Fox Foundation, Gait Advisory Committee

2016- President American Society of Biomechanics

2015 HHP Outstanding Doctoral Advising Mentoring Award

2015-Present: Graduate Program Coordinator, Department of Applied Physiology and Kinesiology

2015: President-elect American Society of Biomechanics

2015. TEDx UF [Speaker](#)

2014-2015: Selected to UF Leadership Academy

2013: HHP Outstanding Doctoral Advising Mentoring Award.

2013: Associate Editor, Medicine and Science in Sports and Exercise

2013: PostDoc Mentoring Award, University of Florida

2012: University of Florida Research Foundation Professor

2012: Meeting Co-Chair and Executive Board Member, American Society of Biomechanics.

2011: Outstanding Young Alumni, University of Florida

2010: Fellow Status, American College of Sports Medicine

2008-2009: University of Florida, College of Health and Human Performance Teacher of the Year.

2005: Teachers College Columbia University, The Outstanding Teacher Award.

2001-2003: Post Doctoral Fellowship in Complementary & Alternative Medicine in Movement Disorders,  
Emory University

1999-2001: Grinter Fellowship, Graduate School, University of Florida

2000-2001: Graduate Student Forum Committee Chair

1999-2001: Graduate Student Council Representative

1998-Present: Phi Kappa Phi Honor Society

1995-1996: United States Achievement Academy Natural Sciences Award

1995-1996: United States Achievement Academy All-American Scholar Award

**FACULTY EFFORT ASSIGNMENT (average last 5 years)**

<u>Teaching</u>	<u>Research</u>	<u>Service</u>
57.5%	27.5%	15%

**GRANT ACTIVITY****Completed and Current Funding**

23. McFarland and Hass. Drug trial in collaboration with Axovant	11/01/2016-	under negotiation
22. Hass, C (PI). Locomotor adaptation training to prevent mobility disability. NIH R21 AG048133	8/1/2015-5/31/2017	\$412,500.00
21. Gunduz, A. Uncovering an electrical biomarker for freezing of gait in Parkinson's disease. UF Opportunity Fund Role: Co-Investigator	6/1/2015-5/30/2017	\$85,991
20. Okun, M.S. A responsive closed loop approach to treat freezing of gait in Parkinson's disease. MJFox Role: Co-Investigator	1/1/2015-12/31/2016	\$750,000

19. **Hass, C.J.** American Society of Biomechanics Annual Meeting.  
NIH 1R13EB015842-01 7/30/2012-7/29/2013 \$16,000  
Role: PI
18. Tillman, M. 36<sup>th</sup> Annual Meeting of the American Society of Biomechanics.  
Alachua County Travel Grant 7/30/2012-7/29/2013 \$5,600  
Role: Co-Investigator
17. Bishop, M. 36<sup>th</sup> Annual Meeting of the American Society of Biomechanics.  
Department of Sponsored Research, UF 7/30/2012-7/29/2013 \$3,000  
Role: Co-Investigator
16. **Hass, C.J.** Characterization of subjects at risk for autosomal dominantly inherited spinocerebellar ataxias, SCA 1 and 3.  
UF Opportunity Fund 5/1/2012-4/30/2015 \$35,363  
Role: PI
15. Sonke, J., *DANCE FOR LIFE: Assessing the effects of dance on motor and non-motor function in Parkinson's disease*  
Parkinson Research Foundation 4/1/2012-3/30/2016 \$33,600  
Role: Co-Investigator
14. Nocera, J. ALTER Function- Asymmetric locomotor training in the elderly to restore function.  
Claude D. Pepper OAIC, University of Florida 4/1/2012-3/31/2014 \$116,432 (declined)  
Role: Co-Investigator
13. White, K. (PI). Nonlinear dynamics used to classify effects of mild traumatic brain injury.  
Army Research Office 9/15/2010-6/14/2011 \$49,999  
Role: Co-PI,
12. Fregly, B. Treatment planning for gait pathologies on whole body angular and linear momentum.  
NSF 2010-2012 \$116,841  
Role: Investigator
11. **Hass, CJ** and L. Altmann. Language and executive function in Parkinson's disease: Effects of dual task and exercise.  
1R21AG033284-01A2 07/15/2010-06/30/2012 \$336,489  
Role: PI
10. White, K. Classifying effects of mild traumatic brain injury on postural sway with nonlinear dynamics.  
Army Research Office Summer 2009 \$132,368  
Role: Co-PI
9. **Hass, CJ.** Motor control in young children with autism  
Autism Speaks Pilot Grant 8/2007-07/2009 \$117,747  
Role: PI
8. **Hass, CJ.** Tai Chi and dual task interference on postural control in Parkinson's disease.  
5R03HD054594-02 9/1/2007-8/31/2009 \$146,500  
Role: PI
7. Alberts, JA and Richards, LG. Deep brain stimulation and motor function in Parkinson's disease patients.  
Department of Veterans Affairs, Center-to-Center Collaborative Research Grant  
11/1/2006-10/31/2008 \$249,300  
Role: Investigator
6. Fernandez, H. The restore study,  
Michael J. Fox Foundation 12/06/2006-9/01/09 \$267,703  
Role: Investigator

- 6. Hass, C. J.** and C. Patten (Multi PI), Central versus peripheral stimulation to improve gait dysfunction in PD. UF National Parkinson's Center For Excellence April 2009 – March 2010 \$7500  
Role: PI
5. Tillman, M.D. Effects of whole-body vibration on spasticity, gait, balance, flexibility, & quality of life in individuals with cerebral palsy.  
HHP Research Opportunity Fund 2006-2007 \$4,500  
Role: Investigator
4. **Hass, C.J.** Resistance training to improve the ability to rise from a chair in individual's with Parkinson's disease.  
Dean's Grant for Pre-tenured Faculty, Teachers College Columbia University  
Role: PI 2004-2005 \$2,500
- 3. Hass, C.J.**, Creatine monohydrate supplementation in Parkinson's disease: A pilot study in patients undergoing resistance training.  
*NIH* AT00609, Developmental Research Program, Emory Center for Research on Complimentary and Alternative Medicine in Neurodegenerative diseases.  
Role: PI 2003-2004 \$36,700
2. Tillman, M.D., The influence of joint position on lower extremity joint loads and muscle activity during exercise on a recumbent stepper and cycle ergometer.  
NuStep Inc. 9/2002-8/2003 \$11,543  
Role: Co-Investigator
1. Pollock, M.L., The effect of NuStep training on aerobic fitness, body composition, and muscular strength and endurance. NuStep Inc. 2007-2008 \$12,202  
Role: Investigator

#### **Postdoc / Graduate Student Directed Funding**

8. Stegemoller, E.L. Parkinson's Action Network Postdoctoral Research Advocacy Award Parkinson's Action Network. \$12,500
7. Stegemoller, E.L. Current effects of singing on speech, swallow in patients with Parkinson's disease. Parkinson's study group. \$24,995.18
6. Stegemoller, E.L. The effect of disease progression on rate dependent impairments in repetitive finger movements in patients with Parkinson's disease.  
CTSI Pilot Project. \$7000
5. Nocera, J. Aerobic exercise to improve executive language function in older adults.  
VA CDA 1. \$118,000
4. Dalton, E. Science Partners in Inquiry-based Collaborative Education, Type I Fellowship, National Science Foundation. \$30,000
3. Fournier, K. Static and dynamic balance control in children with autism.  
Organization for Autism Research. \$2500
2. Wikstrom, E. Control strategies during gait termination: Elucidating the mechanism of ankle instability.  
Southeast Athletic Trainers Association. \$2000
1. Gysin, P., Effects of predictable and unpredictable postural perturbations on grip force coordination of a hand-held object.  
Spencer Foundation Research Training Grant. \$3000

Undergraduate Student Research Funding \$2250 per award

13. Adam Hockman, 2017-2018, "Locomotor Adaptation"
12. Michaela Fallon, 2017-2018, "Gait Variability Index and walking in Parkinson's disease."
11. Alex Weimer, 2017-2018, "Sex differences in dual task performance"
10. Grace Kellaher, 2017-2018, "The effects of treadmill training on obstacle crossing behaviour in older adults."
9. Sarah Brinkerhoff, 2016-2017, "Effects of gait speed on obstacle avoidance behaviour in adults at risk for mobility disability"
8. Benjamin Harris, 2015-2016, "Locomotor adaptability in essential tremor."
7. Mary Bramlage, 2015-2016, "Impacts of dual tasking on elliptical and treadmill performance of healthy young adults."
6. Sean Wehry, 2014-2015, "The effect of motor modality on dual task performance within healthy younger adults."
5. Jacob Cohen, 2013-2014, "Evaluation of metabolic cost during ergonomic hand drive wheelchair use."
4. Carolina Sarmiento, 2013-2014, "The effects of standing posture on gait initiation."
3. Kelly Briggs, 2012-2013, "Minimal clinically important difference in gait initiation in Parkinson's disease."
2. Ryan Belmore, 2011-2012, "Does variability in gait initiation correlate with gait variability in Parkinson's disease?"
1. Robert Pastula, 2011-2012, "The effect of low-intensity aerobic exercise on the cognitive function of young adults with intellectual disabilities."

Howard Hughes Medical Institute Scholar

1. Mary Bramlage, 2014-2015, "Impact of dual tasking on cycling performance of healthy young adults."

**PUBLICATIONS (Web of Science H-index 24, Google Scholar H-index 32)**

**MANUSCRIPTS (First and Last Author are considered the most significant contributors)**

- First or last author on 66% of published manuscripts
- Web of Science 2187 citations to our work - Google Scholar 3957 citations
- Citations to Fournier, K.A., **C.J. Hass**, S.K. Naik, N. Lodha, & J.H. Cauraugh. Motor coordination in autism spectrum disorders: A synthesis and meta-analysis. *J Autism Dev Disord*, Oct;40(10):1227-40, 2010 places this article in the top 1% of their academic fields based on a highly cited threshold for the field and publication year.

120. De Jesus S, Almeida L, Shahgholi L, Martinez-Ramirez D, Roper J, Hass CJ, Akbar U, Wagle Shukla A, Raike RS, Okun MS. Square biphasic pulse deep brain stimulation for essential tremor: The BiP tremor study. *Parkinsonism Relat Disord*. 2018 Jan;46:41-46.

119. Sowalsky KL, Sonke J, Altmann LJP, Almeida L, **Hass CJ**. Biomechanical Analysis of Dance for Parkinson's Disease: A Paradoxical Case Study of Balance and Gait Effects? *Explore (NY)*. 2017 Nov - Dec;13(6):409-413.

118. Tahafchi P, Molina R, Roper JA, Sowalsky K, Hass CJ, Gunduz A, Okun MS, Judy JW. Freezing-of-Gait detection using temporal, spatial, and physiological features with a support-vector-machine classifier. *Conf Proc IEEE Eng Med Biol Soc.* 2017 Jul;2017:2867-2870
117. Stone AE, Skinner JW, Lee HK, **Hass CJ**. A little trouble getting started: Initial slowness in Parkinson's disease step negotiation. *Gait Posture.* 2017 May 31;57:97-101
116. Zukowski LA, **Hass CJ**, Shechtman O, Christou EA, Tillman MD. The effect of wheelchair propulsion style on changes in time spent in extreme wrist orientations after a bout of fatiguing propulsion. *Ergonomics.* 2017 Mar 21:1-10
115. Almeida L, D. Martinez-Ramirez, B. Ahmed, Deeb W, S. Jesus, J. Skinner, M.J. Terza, U. Akbar, R.S. Raike, **C.J. Hass**, M.S. Okun. A pilot trial of square biphasic pulse deep brain stimulation for dystonia: The BIP dystonia study. *Mov Disord.* Apr;32(4):615-618. 2017
114. Hazamy AA, L.J. Altmann., E. Stegemöller, D. Bowers, H.K. Lee, J. Wilson, M.S. Okun., **C.J. Hass** Improved cognition while cycling in Parkinson's disease patients and healthy adults. *Brain Cogn.* Jan 11;113:23-31,2017
113. Roper JA, R.T. Roemmich, M.D. Tillman, M.J. Terza, **C.J. Hass**. Split-belt Treadmill Walking Alters Lower Extremity Frontal Plane Mechanics. *J Appl Biomech.* Aug;33(4):256-260, 2017
112. M. J. Bellman, T. -H. Cheng, R. J. Downey, C. J. Hass, and W. E. Dixon, "Switched Control of Cadence During Stationary Cycling Induced by Functional Electrical Stimulation," *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Vol. 24, No. 12, pp. 1373-1383, 2016.
111. Roper JA, M.J. Terza, **CJ Hass**. Perception of symmetry and asymmetry in individuals with anterior cruciate ligament reconstruction. *Clin Biomech (Bristol, Avon).* 2016 Dec;40:52-57
110. Altmann LJ, E. Stegemöller, A.A. Hazamy, J.P. Wilson, D. Bowers, M.S. Okun, **C.J. Hass**. Aerobic Exercise Improves Mood, Cognition, and Language Function in Parkinson's Disease: Results of a Controlled Study. *J Int Neuropsychol Soc.* 2016 Sep 22:1-12
109. Roper JA, N. Kang, J. Ben, J.H. Cauraugh, M.S. Okun, **C.J. Hass**. Deep brain stimulation improves gait velocity in Parkinson's disease: a systematic review and meta-analysis. *J Neurol.* Jun;263(6):1195-203, 2016
108. Jackson, J.N., **C.J. Hass**, B.J. Fregly. Development of a Subject-Specific Foot-Ground Contact Model for Walking. *J Biomech Eng.* Sep 1;138(9). doi: 10.1115/1.4034060, 2016
107. Stegemöller, E, A. Zaman, C.D. MacKinnon, M.D. Tillman, **C.J. Hass**., M.S. Okun. Laterality of repetitive finger movement performance and clinical features of Parkinson's disease. *Hum Mov Sci.* Jun 29;49:116-123, 2016
106. Zukowski, L.A., E.A. Christou, O. Shechtman, **C.J. Hass**, M.D. Tillman. The Effect of Propulsion Style on Wrist Movement Variability During the Push Phase After a Bout of Fatiguing Propulsion. *PM R.* Jul 4. pii: S1934-1482(16)30250-7, 2016
105. Lee, H.K., L.J. Altmann, N. McFarland, **C.J. Hass**. The relationship between balance confidence and control in individuals with Parkinson's disease. *Parkinsonism Relat Disord.* May;26:24-8, 2016
104. Park K, R..T. Roemmich, J.M. Elrod, **C.J. Hass**, E.T. Hsiao-Wecksler. Effects of aging and Parkinson's disease on joint coupling, symmetry, complexity and variability of lower limb movements during gait. *Clin Biomech (Bristol, Avon).* Mar;33:92-7, 2016
103. Roper, J.A., M.J. Terza, M.D. Tillman, **C.J. Hass**. Adaptation Strategies of Individuals With Anterior Cruciate Ligament Reconstruction. *Orthop J Sports Med.* Feb 8;4(2):2325967115627611, 2016

102. Scott, BM, J. Maye, J. Jones, K. Thomas, P.C. Mangal, E. Trifilio, **C. Hass**, M. Marsiske, D. Bowers Post-exercise pulse pressure is a better predictor of executive function than pre-exercise pulse pressure in cognitively normal older adults. *Neuropsychol Dev Cogn B Aging Neuropsychol Cogn*. Dec 2:1-1, 2015
101. Martinez-Ramirez D, JC Giugni, L Almeida, R Walz, B Ahmed, FA Chai, V Rundle-Gonzalez, AR Bona, E Monari, A Wagle Shukla, CW Hess, **CJ Hass**, MS Okun. Association between antidepressants and falls in Parkinson's disease. *J Neurol*. Jan;263(1):76-82, 2016
100. Wahid F, R. Begg, N. Lythgo, **C.J. Hass**, S. Halgamuge, D.C. Ackland. A Multiple Regression Approach to Normalization of Spatiotemporal Gait Features. *J. Appl Biomech*, Apr;32(2):128-39, 2016
99. Bellman M. J., T. -H. Cheng, R. J. Downey, **C. J. Hass**, W. E. Dixon. Switched Control of Cadence During Stationary Cycling Induced by Functional Electrical Stimulation. *IEEE in Transactions on Neural Systems & Rehabilitation Engineering*, in press.
98. Jackson JN, **C.J. Hass**, BJ Fregly. Residual Elimination Algorithm Enhancements to Improve Foot Motion Tracking during Forward Dynamic Simulations of Gait. *J Biomech Eng*. Nov;137(11):111002, 2015
97. Wahid, F., R. Begg, **C.J. Hass**, S. Halgamuge, & D.C. Ackland. Classification of Parkinson's disease gait using spatial-temporal gait features. *IEEE Journal of Biomedical and Health Informatics*. Nov;19(6):1794-802, 2015
96. Amano S., J.W. Skinner, H.K. Lee, E.L. Stegemöller, N. Hack, U. Akbar, D. Vaillancourt, N.R. McFarland, & **C.J. Hass**. Discriminating features of gait performance in progressive supranuclear palsy. *Parkinsonism Relat Disord*. (8):888-93, Aug 2015.
95. Burciu, R.G., E. Ofori, P. Shukla, P.J. Planetta, A.F. Snyder, H. Li, **C.J. Hass**, M.S. Okun, N.R. McFarland, & D.E. Vaillancourt. Distinct patterns of brain activity in progressive supranuclear palsy and Parkinson's disease. *Mov Disord*. 30(9):1248-58, 2015
94. Altmann, L.J., E. Stegemöller, A.A. Hazamy, J.P. Wilson, M.S. Okun, N.R. McFarland, A. Wagle Shukla, & **C.J. Hass**. Unexpected dual task benefits on cycling in Parkinson disease and healthy adults: A neuro-behavioral model. *PLoS One*. May 13;10(5):e0125470, 2015
93. Stegemöller, E.L., P. Schmidt, **C.J. Hass**; I. Malaty, & M.S. Okun. How should pushing off or the use of assistive devices be incorporated in the timed up and go for persons with Parkinson's disease? *Arch Phys Med Rehabil.*, 2015
92. Stegemöller, E.L., J. Uzochukwu, M.D. Tillman, N.R. McFarland, S.H. Subramony, M.S Okun, & **C.J. Hass**. Repetitive finger movement performance differs among Parkinson's disease, progressive supranuclear palsy, and spinocerebellar ataxia. *J Clin Mov Disord*. Feb 16;2:6, 2015
91. Skinner, J.W., H.K. Lee, R.T. Roemmich, S. Amano, & **C.J. Hass**. Execution of activities of daily living in persons with Parkinson's disease. *Med Sci Sports Exerc*. Sep;47(9):1906-12, 2015
90. Morita, H., **C.J. Hass**, E. Moro, A. Sudhyadhom, R. Kumar, & M.S. Okun. Pedunculopontine nucleus stimulation: Where are we now and what needs to be done to move the field forward? *Frontiers in Neurology: Movement Disorders*. 2014 Dec 4;5:243. doi: 10.3389/fneur.2014.00243. eCollection
89. Vallabhajosula, S., I.U. Haq, N.H. Hwynn, G. Oyama, M.S. Okun; M.D. Tillman, & **C.J. Hass**. Low-frequency versus high-frequency subthalamic nucleus deep brain stimulation on postural control and gait in Parkinson's disease: A quantitative study. *Brain Stimulation*. Jan-Feb;8(1):64-75, 2015
- \* 88. Malone, A., M. Manto, & **C.J. Hass**. Dissecting the links between cerebellum and dystonia. *Cerebellum*. 13(6):666-8, 2014

87. Jones, J.D., **C.J. Hass**, P. Mangal, J. Lafo, M.S. Okun, & D. Bowers. The cognition and emotional well-being indices of the Parkinson's disease questionnaire-39: What do they really measure? *Parkinsonism Relat Disord.* Nov;20(11):1236-41, 2014
86. **Hass, C.J.**, M. Bishop, M. Moscovich, E.L. Stegemöller, J. Skinner, I.A. Malaty, A. Wagle Shukla, N. McFarland, & M.S. Okun. Defining the clinically meaningful difference in gait speed in persons with Parkinson disease. *J Neurol Phys Ther.* 2014 Oct;38(4):233-8.
85. Fawver B, G.F. Beatty, K.M. Naugle, **C.J. Hass**, & C.M. Janelle. Emotional state impacts center of pressure displacement prior to forward gait initiation. *J Appl Biomech.* Feb;31(1):35-40, 2015.
84. Fawver, B., **C.J. Hass**, K. D. Park, & C.M. Janelle. Autobiographically recalled emotional states impact forward gait initiation as a function of motivational direction. *Emotion.* 14(6):1125-36, 2014
83. S. Vallabhajosula, B.L. Roberts, & **C.J. Hass**. Tai Chi intervention improves dynamic postural control during gait initiation in older adults: A pilot study. *J Appl Biomech.* 30(6):697-706, 2014
82. Parr ND, **C.J. Hass**, & M.D. Tillman. Cellular phone texting impairs gait in able-bodied young adults. *J Appl Biomech.* 30(6):685-8, 2014
81. Roemmich R.T., B.J. Fregly, & **C.J. Hass**. Neuromuscular complexity during gait is not responsive to medication in persons with Parkinson's disease. *Ann Biomed Eng.* 42(9):1901-12, 2014.
80. van der Marck MA, M.P. Klok, M.S. Okun, N. Giladi, M. Munneke, B.R. Bloem, & **NPF Falls Task Force**. Consensus-based clinical practice recommendations for the examination and management of falls in patients with Parkinson's disease. *Parkinsonism Relat Disord.* Apr;20(4):360-9, 2014.
79. Roemmich RT, N. Hack, U. Akbar, & **C.J. Hass**. Effects of dopaminergic therapy on locomotor adaptation and adaptive learning in persons with Parkinson's disease. *Behav Brain Res.* Jul 15; 268:31-9, 2014
78. Stegemöller E.L., J.P. Wilson, A. Hazamy, M.C. Shelley, M.S. Okun, L.J. Altmann, & **C.J. Hass**. Associations between cognitive and gait performance during single- and dual-task walking in people with Parkinson disease. *Phys Ther.* Jun;94(6):757-66, 2014.
77. Huynh, K.V., C.H. Sarmiento, R.T. Roemmich, E.L. Stegemöller, & **C.J. Hass**. Comparing after effects following split-belt treadmill walking and unilateral stepping. *Med Sci Sports Exerc.* 46(7):1392-9, 2014
76. Nocera J., K. McGregor, **C.J. Hass**, & B. Crosson. Spin exercise improves semantic fluency in previously sedentary older adults. *J Aging and Phys Act.* 23(1):90-4, 2015.
75. Stegemöller E.L., J. Nocera, I. Malaty, M. Shelley, M.S. Okun, & **C.J. Hass**. Timed up and go, cognitive, and quality of life correlates in Parkinson's disease. *Arch Phys Med and Rehabil.* Apr;95(4):649-55, 2014
74. Hassan, A. S. Vallabhajosula, L.B. Zahodne, D. Bowers, M.S. Okun, H.H. Fernandez, & **C.J. Hass**. Correlations of apathy and depression with postural instability in Parkinson disease. *J Neurol Sci.* Mar 15;338(1-2):162-5, 2014
73. Nocera, J.R., S. Amano, S. Vallabhajosula, & **C.J. Hass**. Tai Chi exercise to improve non-motor symptoms of Parkinson's disease. *J Yoga Phys Ther.* Aug 20;3. 2013
72. Fournier, K.A., S. Amano, K.J. Radonovich, T.M. Blesser, & **C.J. Hass**. Decreased dynamical complexity during quiet stance in children with autism spectrum disorders. *Gait Posture.* Jan;39(1):420-3, 2014.
71. Roemmich, R.T., P.R. Zeilman, D.E. Vaillancourt, M.S. Okun, & **C.J. Hass**. Gait variability magnitude but not structure is altered in essential tremor. *J Biomech.* Oct 18;46(15):2682-7, 2013.



70. Stegemöller E.L., S. Vallabhajosula, I. Haq, N Hwynn, **C.J. Hass**, & M.S. Okun. Selective use of low frequency stimulation in Parkinson's disease based on the absence of tremor. *NeuroRehabil.* 33(2):305-12, 2013.
69. Stegemöller E.L., J. Roper, **C.J. Hass**, & D.J. Kennedy. Changes in gait kinematics and lower back muscle activity post radiofrequency denervation of the zygapophysial joint: A case study. *Spine.* 15: E21-E27, 2015.
68. Amano, S., J.R. Nocera, S. Vallabhajosula, J.L. Juncos, R.J. Gregor, D.E. Waddell, S.L. Wolf, & **C.J. Hass**. The effect of Tai Chi exercise on gait initiation and gait performance in persons with Parkinson's disease. *Parkinsonism Relat Disord.* Nov;19(11):955-60, 2013
67. Fernandez, K.M., R.T. Roemmich, E.L. Stegemöller, S. Amano, A. Thompson, M.S. Okun, & **C.J. Hass**. Gait initiation impairments in both essential tremor and Parkinson's disease. *Gait Posture.* Sep;38(4):956-61, 2013
66. Radonovich, K.J., K.A. Fournier, & **C.J. Hass**. Relationship between postural control and restricted, repetitive behaviors in autism spectrum disorders. *Front Integr Neurosci.* May 7;7:28 2013
65. Rodriguez, K.L., R.T. Roemmich, B. Cam, B.J. Fregly, & **C.J. Hass**. Persons with Parkinson's disease exhibit decreased neuromuscular complexity during gait. *Clin Neurophysiol.* Jul;124(7):1390-7, 2013
64. Nocera, J.R., R.T. Roemmich, J. Elrod, L. Altmann, & **C.J. Hass**. Effects of a cognitive task on gait initiation in Parkinson's disease: Evidence of motor prioritization? *J Rehabil Research and Development.* Aug;50(5):699-708, 2013.
63. Nocera J., E.L. Stegemöller, I. Malaty, M.S. Okun, M. Marsiske, & **C.J. Hass**. Using the timed up and go test in a clinical setting to predict falling in Parkinson's disease. *Arch Phys Med Rehabil.* Jul;94(7):1300-5, 2013
62. Amano, S., R. Roemmich, J.W. Skinner, & **C.J. Hass**. Ambulation in Parkinson's disease. *PM, &R Clinics.* May;24(2):371-92, 2013.
61. Roper, J., E.L. Stegemöller, M.D. Tillman, & **C.J. Hass**. Oxygen consumption, oxygen cost, heart rate, and perceived effort during split-belt treadmill walking in young healthy adults. *Euro J. Appl Phys.* Mar;113(3):729-34, 2013
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## BOOK CHAPTERS

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106. Sarmiento, C.H., K.V. Huynh, R.T. Roemmich, & **C.J. Hass**. The relationship between center of mass movement and overground gait aftereffects of split-belt treadmill walking and unilateral stepping. ACSM Annual meeting, Indianapolis, IN. May 2013.
105. Huynh, K.V., C.H. Sarmiento, R.T. Roemmich, & **C.J. Hass**. Overground gait aftereffects produced by split-belt treadmill walking and unilateral stepping. ACSM Annual meeting, Indianapolis, IN. May 2013.
104. Roemmich, R.T., P.R. Zeilman, M.S. Okun, & **C.J. Hass**. Magnitude but not structure of gait variability is altered in persons with essential tremor. ACSM Annual meeting, Indianapolis, IN. May 2013.
103. Otzel, D.M., **C.J. Hass**, E.A. Wikstrom, M.D. Bishop, P.A. Borsa, & M.D. Tillman. Neuromotor and functional measures following whole body vibration in individuals with chronic ankle instability. ACSM Annual meeting, Indianapolis, IN. May 2013.
102. Stegemöller, E.L., L.J.P. Altmann, A. Hazamy, J. Wilson, M.S. Okun, & **C.J. Hass**. Effects of dual task on cycling performance in persons with PD. Abstract: Society for Neuroscience. October 2012.
101. Jackson, J., **C.J. Hass**, & B.J. Fregly. Residual elimination algorithm enhancements to improve foot motion tracking during forward dynamic simulation of gait. ASME 2012 Summer Bioengineering Conference, Puerto Rico. June 2012.
100. Roemmich, R.T., C. Patten, M. Corti, E.L. Stegemöller, & **C.J. Hass**. Split-belt treadmill training alters inter-hemispheric interactions and improves interlimb coordination in persons with Parkinson's disease. Society for Neuroscience Annual Meeting 2012. October 2012.
99. **Hass, C.J.**, R. Roemmich, K. Hernandez, & B.J. Fregly. Persons with Parkinson's disease exhibit decreased neuromuscular complexity during gait. Society for Neuroscience, New Orleans. October 2012.
98. Jackson, J., **C.J. Hass**, B. Fregly. Residual elimination algorithm improvements for forward dynamic simulation of gait. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
97. Amano, S., E. Stegemöller, L. Altmann, & **C.J. Hass**. The relationship between structural and spatial variability of postural control in persons with Parkinson disease. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.



96. Nocera, J., M. Okun, J. Skinner, & **C.J. Hass**. The gait variability profile of patients with Parkinson's disease when compared to older adults with mobility disability and a history of falls. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
95. Beatty, G., R. Roemmich, K. Naugle, C. Janelle, & **C.J. Hass**. Emotion as a gait therapy in Parkinson's patients: Affective stimuli, & gait pattern variability. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
94. Stegemoller, E., C. MacKinnon, M. Tillman, & **C. J. Hass**. Differences in repetitive finger movement between the most effected and least effected hand in Parkinson's disease. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
93. Skinner, J., R. Roemmich, S. Amano, E. Stegemoller, L. Altmann, & **C.J. Hass**. Frequency domain analysis of ground reaction force does not differentiate between hyperkinetic and hypokinetic movement disorders. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
92. Roper, J., R. Roemmich, M. Tillman, & **C.J. Hass**. Frontal plane mechanics are altered during split belt treadmill walking in young healthy adults. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
91. Fernandez, K., R. Roemmich, E. Stegemoller, J. Nocera, & **C.J. Hass**. Gait initiation impairments in essential tremor and Parkinson's disease. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
90. Vallabhajosula, S., B. Roberts, & **C.J. Hass**. Influence of Tai Chi on kinematics during multi-directional gait initiation. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
89. Elrod, J., B. Hoover, R. Roemmich, & **C.J. Hass**. Induced alterations of interlimb coordination caused by the use of a split-belt treadmill. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
88. Lee, H., S. Amano, K. Fournier, K. Radonovich, & **C.J. Hass**. A new approach to understand postural instability in young children with autism spectrum disorders. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
87. Jackson, J., **C.J. Hass**, & B. Fregly. Development of a subject-specific vertical ground contact force model. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
86. Roemmich, R., J. Nocera, & **C.J. Hass**. Locomotor adaptive learning is impaired in persons with Parkinson's disease. 36th Annual Meeting of the American Society of Biomechanics, Gainesville, FL. August 2012.
85. Altmann, L.J. P., E.L. Stegemöller, A.A. Hazamy, J.P. Wilson, D. Bowers, C.M. Sapienza, M.S. Okun, & **C.J. Hass**. Graded dual task benefits of cognitive tasks on cycling in Parkinson's disease. Abstract: Society for Movement Disorders. June 2012.
84. Hazamy, A.A., L.J.P. Altmann, J.P. Wilson, E.L. Stegemöller, D. Bowers, C.M. Sapienza, M.S. Okun, & **C.J. Hass**. Dual task dissociations in cognitive performance in Parkinson's disease. Abstract: Society for Movement Disorders. June 2012.
83. Wilson, J.P., L.J.P. Altmann, A.A. Hazamy, E.L. Stegemöller, M.S. Okun, & **C.J. Hass**. Dual task effects during sentence production in Parkinson's disease. Abstract: Society for Movement Disorders. June 2012.
82. Elrod, J.M., R. Roemmich, S. Vallabhajosula, & **C.J. Hass**. Improvements in interlimb coordination due to subthalamic nucleus stimulation in people with Parkinson's disease. The American College of Sports Medicine, San Francisco, CA. 2012.
81. Skinner, J. S., R. Roemmich, & **C.J. Hass**. Hoehn and Yahr-defined severity of Parkinson's disease does affect gait initiation variability. The American College of Sports Medicine, San Francisco, CA. 2012.

80. Roemmich, R.T., J.R. Nocera, S. Amano, & **C.J. Hass**. Mediolateral control of the center of pressure during quiet stance is altered in Parkinson's disease. The American College of Sports Medicine, San Francisco, CA. 2012.
79. Amano, S., J.R. Nocera, S. Vallabhajosula, & **C.J. Hass**. The effect of Tai Chi on postural control in Parkinson's disease: a pilot study. The American College of Sports Medicine 59<sup>th</sup> Annual Meeting, San Francisco, CA. May 2012.
78. Stegemoller, E.L., S. Vallabhajosula, M. S. Okun, I. Haq, N. Hwynn, & **C.J. Hass**. Is there a case for low frequency DBS in Parkinson's disease. Society for Neuroscience Meeting. November 2011.
77. Park, K., S. Vallabhajosula, R. Roemmich, **C.J. Hass**, & E. Hsiao-Wecksler. Effects of subthalamic nucleus deep brain stimulation on Parkinsonian gait behavior. Poster presented at the 35<sup>th</sup> Annual Meeting of the American Society of Biomechanics, Long Beach, California. August 2011.
76. Roemmich, R., & **C.J. Hass**. Lower extremity joint moment asymmetry during split belt treadmill walking. 35<sup>th</sup> Annual Meeting of the American Society of Biomechanics, Long Beach, California. August 2011.
75. Waddell, D., R.T. Roemmich, **C.J. Hass**, I. Malaty, & D. Nuckley. Quantifying spinal forces during head and neck tics in a Tourette population: implementation of a new dynamic model. The 35<sup>th</sup> Annual Meeting of the American Society of Biomechanics. August 2011.
74. Waddell, D., R.T. Roemmich, **C.J. Hass**, I. Malaty, & D. Nuckley. A dynamic model quantifying spinal forces during head and neck tics in a Tourette population. The MDS 15<sup>th</sup> International Congress of Parkinson's Disease and Movement Disorders. June 2011.
73. Vallabhajosula, S., M. Okun, N. Hwynn, I. Haq, & **C.J. Hass**. Effect of low frequency bilateral deep brain stimulation of subthalamic nucleus on gait in Parkinson disease. Podiums presentation at the 16<sup>th</sup> Annual Gait and Clinical Movement Analysis Society Meeting, Bethesda, Maryland. April 2011.
72. Nocera, J.R., **C.J. Hass**, & B. Crosson. Aerobic exercise improves executive language function in older adults. 7<sup>th</sup> Annual International Conference on Kinesiology and Exercise Science, Athens, Greece. 2011.
71. Elrod, J.M., A. Field, R.T. Roemmich, N. Tester, & **C.J. Hass**. Interlimb coordination patterns in people with Parkinson's disease. The American College of Sports Medicine 58<sup>th</sup> Annual Meeting. May 2011.
70. Nocera, J.R., R. Roemmich, J. Elrod, B. Hoover, & **C.J. Hass**. Gait initiation maintains characteristics during a dual cognitive task. American College of Sports Medicine, Denver, CO. 2011.
69. **Hass, C.J.**, J. R. Nocera, S. Amano, S. Vallabhajosula, & R.T. Roemmich. Tai Chi training and non-motor features of Parkinson's disease. The American College of Sports Medicine, Denver, CO. 2011.
68. Hoover, B., S. Amano, S. Vallabhajosula, J.R. Nocera, & **C.J. Hass**. Self-rating scales do not predict balance in Parkinson disease. American College of Sports Medicine, Denver, CO. 2011.
67. Altmann, L.J.P., **C.J. Hass**, J. Nocera, M. Troche, M. Daly, & M.S. Okun. Exercise effects on cognition and language in PD: A case study. A poster presentation at the meeting of Exercise in Parkinson's Disease Group, American. 2010.
66. Roemmich, R.T., J.R. Nocera, S. Vallabhajosula, S. Amano, B. Hoover, & **C.J. Hass**. Step length variability during gait initiation in Parkinson's disease. The 34<sup>th</sup> Annual Meeting of the American Society of Biomechanics, Providence, RI. 2010.
65. Fawver, B.J., K.M. Gamble, **C.J. Hass**, & C.M. Janelle. Emotional influences on postural sway prior to gait initiation. Journal of Sport & Exercise Psychology, 31, 2010.
64. Jackson, J.N., **C.J. Hass**, J.K. De Witt, J.P. Walter, & B.J. Fregly. Variation of whole-body angular and linear momentum during human locomotion. In Proceedings of the ASME Summer Bioengineering Conference. June 16-19, 2010.

63. Nocera, J.R., S. Vallabhajosula, L. Zahodne, C. Sosdza, H. Fernandez, D. Bowers, & **C.J. Hass**. Is apathy associated with postural control in Parkinson's disease? *Gait and Mental Function*. Feb 2010.
62. Nocera, J.R., S. Vallabhajosula, S. Amano, H. Fernandez, & **C.J. Hass**. Gait performance and cognitive function in Parkinson's disease. *Gait and Mental Function*. Feb 2010.
61. Amano, S., J.R. Nocera, S. Vallabhajosula, J. Juncos, & **C.J. Hass**. Biomechanical and clinical gait assessment for person with Parkinson disease. *Gait and Mental Function*. Feb 2010.
60. Fournier, K., K. Radonovich, J. Selbst, H. Benefield, & **C.J. Hass**. Quiet standing and quiet sitting in young children with autism spectrum disorders. *American Society of Biomechanics*. Aug 2009.
59. **Hass, C.J.**, K. Fournier, J. Selbst, H. Benefield, & K. Radonovich. Are repetitive restrictive behaviors and postural control related in autism spectrum disorders? *American Society of Biomechanics*. Aug 2009.
58. Gamble, K.M., J. Joyner, K. Fournier, **C.J. Hass**, & C. Janelle. Emotional influences on the center of pressure trajectory during gait initiation. *American Society of Biomechanics*. August 2009.
57. Mizell, R., **C.J. Hass**, R. Siders, & M.D. Tillman. Anticipatory effects on frontal plane kinematics during cutting movements. *American Society of Biomechanics*. August 2009.
56. Nocera, J.R., S. Vallabhajosula, S. Amano, & **C.J. Hass**. The relationship between balance and cognition in Parkinson's disease. *The American Society of Biomechanics*. August 2009.
55. Amano, S., J. Alberts, D. Doidge, J. Joyner, & **C.J. Hass**. Relationship between clinical and measures of hand function. *The Annual Meeting for the American Society of Biomechanics*. August 2009.
54. Wikstrom, E.A., & **C.J. Hass**. Control strategies during gait termination differ among, control, copers, and chronic ankle instability subjects. *National Athletic Trainers' Association*. June 2009.
53. Doidge, D., E. A. Wikstrom, S. Amano, & **C.J. Hass**. The influence of ankle instability on the kinetics of gait termination. *American College of Sports Medicine*. May 2009.
52. Nocera, J.R., S. Vallabhajosula, S. Amano, T. Buckley, & **C.J. Hass**. Dynamic stability during multi-directional gait initiation: Influence of age and disease. *American College of Sports Medicine*. May 2009.
51. Altmann, L.J.P., J.R. Nocera, **C.J. Hass**, & C.M. Sapienza. Exercise effects on cognition and language in Parkinson's disease: A case study. *International Neuropsychological Society*. Feb 2009.
50. **Hass, C.J.**, E. Wikstrom, K. Fournier, A. Inamdar, & M. Bishop. Locomotor initiation: Influence of functional ankle instability. *American Society of Biomechanics*. August 2008.
49. Stewart, K.C., M. Fernandez, M.S. Okun, C.E. Jacobson, R.L. Rodriguez, & **C.J. Hass**. Does Parkinson's disease alter the natural ipsilateral influence of the dominant left hemisphere? *Movement Disorders Society Meeting*. June 2008.
48. **Hass, C.J.**, T. Buckley, & J. Juncos. Subjective versus objective measures of gait function: Accuracy in Parkinson disease. *American College of Sports Medicine*. May-June 2008.
47. Fournier, K., **C.J. Hass**, M.D. Tillman, K. Radonovich, M. Lewis, & J. Chow. Dynamic balance control in children with autism: A pilot study. *Gait and Clinical Movement Analysis Society*. April 2008.
46. Stewart, K.C., H.H. Fernandez, M.S. Okun, C.E. Jacobson, & **C.J. Hass**. Correlating upper extremity and lower extremity motor impairment in Parkinson's disease to quality of life: Which has the stronger influence? *ANA Meeting*. April 12-19 2008.
45. Buckley, T., & **C.J. Hass**. Progressive resistance training improves sit-to-walk performance in Parkinson's disease patients: A pilot study. *Gait and Clinical Movement Analysis Society*. April 2008.

44. **Hass, C.J.**, & T. Buckley. Progressive resistance training improves gait initiation performance in Parkinson's disease patients: A pilot study. Gait and Clinical Movement Analysis Society. April 2008.
43. Darrow, L.K., L. Zahodne, A. Mikos, B. Skoblar, **C.J. Hass**, C. Jacobson, M.S. Okun, H.H. Fernandez, R. Rodriguez, & D. Bowers. Assessing apathy with the UPDRS: Comparison to the apathy evaluation scale. Parkinson's Study Group. October 2007.
42. Buckley. T.A., C. Pitsikoulis, & **C.J. Hass**. Dynamic postural stability during sit-to-walk transitions in healthy young and healthy elderly. American Society of Biomechanics meetings. August 2007.
41. **Hass, C.J.**, T. Buckley, & C. Pitsikoulis. Obstacle crossing behavior is affected by Parkinson's disease. American Society of Biomechanics Meeting. August 2007.
40. Waddell, D.W., **C.J. Hass**, R. Gregor, & S. Wolf. Intense Tai Chi training and its effects on gait in older, transitionally frail adults. 18<sup>th</sup> Conference of the International Society for Posture and Gait Research. July 2007.
39. Buckley, T.A., C. Pitsikoulis, E. Barthelemy, & **C.J. Hass**. Progressive resistance training improves strength and sit-to-stand performance in Parkinson's disease: A pilot study. American College of Sports Medicine. 2007.
38. Buckley, T.A., C. Pitsikoulis, & **C.J. Hass**. Dynamic stability during sit-to-walk transitions in Parkinson's disease patients. Society for Neuroscience. October 2006.
37. Diermayr, G., P. Gysin, **C.J. Hass**, & A.M. Gordon. Anticipatory adjustments in fingertip forces during gait initiation while holding an object. Society for Neuroscience. October 2006.
36. **Hass, C.J.**, D.E. Waddell, S.L. Wolf, J.L. Juncos, & R.J. Gregor. The influence of Tai Chi training on locomotor ability in Parkinson's disease. American Society of Biomechanics. Sept 2006.
35. Lay, A.N., **C.J. Hass**, & R.J. Gregor. Backward upslope walking: Implications for the knee joint. International Society of Biomechanics and American Society of Biomechanics. July 2005.
34. Lay, A.N., D. Lai, **C.J. Hass**, & R.J. Gregor. Control strategy transitions during slope walking. XXth International Society of Biomechanics and American Society of Biomechanics. July 2005.
33. **Hass, C.J.**, D. Waddell, S.L. Wolf, J.L. Juncos, & R.J. Gregor. The relationship between knee extensor strength and balance in Parkinson's disease. International Society of Biomechanics and the American Society of Biomechanics meetings. July 2005.
32. Peier, P.G., T. Kaminsky, **C.J. Hass**, & A. Gordon. Effect of predictable and unpredictable gait perturbations on grip force coordination of a hand held object. International Society for Posture and Gait Research. May 2005.
31. Collins, M.A., **C.J. Hass**, D. Morris, & J.L. Juncos. The effects of acute creatine supplementation on muscle strength in patients With Parkinson's disease. College of Sports Medicine. 2005.
30. **Hass, C.J.**, M.A. Collins, D. Morris, & J.L. Juncos. Resistance training combined with creatine supplementation in patients with Parkinson's disease. American College of Sports Medicine. 2005.
29. **Hass, C.J.**, D.E. Waddell, S.L. Wolf, J.L. Juncos, & R.J. Gregor. Comparing momentum and stability tradeoffs during bidirectional gait initiation in older adults and parkinsonism. Annual Meeting of the American Society of Biomechanics, Portland, OR. September, 2004.
28. Lay, A.N., **C.J. Hass**, & R.J. Gregor. The role of select biarticular muscles during slope walking. American Society of Biomechanics. September 8-11, 2004.
27. Tillman, M.D., J.W. Chow, G.M. Gutierrez, & **C.J. Hass**. Biomechanical comparison of two lower

extremity exercise machines used for knee injury rehabilitation. American College of Sports Medicine. 2004.

26. Waddell, D.E., **C.J. Hass**, R.J. Gregor, S.L. Wolf, & J.L. Juncos. Broad peak motor unit synchrony in Parkinson's disease: beyond a tremor index? Society for Neuroscience. November 2003.

25. **Hass, C. J.**, D.E. Waddell, R.P. Fleming, J.L. Juncos, & R.J. Gregor. The influence of the severity of Parkinson's disease on the COP-COM moment arm during gait initiation. American Society of Biomechanics. September 25-28, 2003.

24. Chow, J.W., M.D. Tillman, G.M. Gutierrez, & **C.J. Hass**. An electromyographic comparison of parallel and trap bar squats. American Society of Biomechanics. September 25-28, 2003.

23. Tillman, M.D., J.W. Chow, G.M. Gutierrez, & **C.J. Hass**. A comparison of lower extremity muscle activity during exercise on a cycle ergometer and recumbent stepper. American Society of Biomechanics. September 25-28, 2003.

22. Wolf, S.L., R.J. Gregor, A. Oliver, D. Waddell, & **C.J. Hass**. Why does Tai Chi favorably impact fall related events in older adults: Exploring findings and mechanisms. International Society of Biomechanics. July 2003.

21. Brunt D., M.D. Tillman, R. Criss, & **C.J. Hass**. Take-off and landing strategies in female volleyball players. Gait and Clinical Movement Analysis Society. May 2003.

20. **Hass, C.J.**, D.E. Waddell, D.W. Smith, J.L. Juncos, S.L. Wolf, & R.J. Gregor. Parkinson's disease affects lower extremity joint moments during gait. American College of Sports Medicine. 2003.

19. Chow, J.W., M.D. Tillman, & **C.J. Hass**. Stability analysis of parallel and trap bar squats. Medicine and Science in Sport and Exercise. 2003.

18. Bishop-Lindsay, K., **C.J. Hass**, S.L. Wolf, M.J. Haber, A. Bush, & J.L. Juncos. The relationship of heart rate and perceived exertion is altered by severity of Parkinson's disease. American College of Sports Medicine. 2003.

17. Tillman, M.D., J.W. Chow, G.M. Gutierrez, & **C.J. Hass**. The influence of seat position on lower extremity mechanics during recumbent stepping. American College of Sports Medicine. 2003.

16. Waddell, D.E., **C.J. Hass**, R.J. Gregor, S.L. Wolf, & J.L. Juncos. Broad peak motor unit synchrony in Parkinson's disease is not solely explained by tremor. American Neurological Association Annual Conference. 2002.

15. **Hass, C.J.**, E.A. Schick, J.W. Chow, M.D. Tillman, D. Brunt, & C. Papangelou. Biomechanics of jump-landings in prepubescent and postpubescent female athletes. American College of Sports Medicine. 2002.

14. Tillman, M.D., J.W. Chow, **C.J. Hass**, K.D. Reisinger, & K. Norris. An evaluation of hip strength in transfemoral amputees. American College of Sports Medicine. 2002.

13. Chow, J.W., W.S. Chae, M.D. Tillman, **C.J. Hass**, & C.I. Akly. Bilateral comparison of patellar mechanism on unilateral ACL-reconstructed individuals. American College of Sports Medicine. 2001.

12. Tillman, M.D., **C.J. Hass**, J.A. Bauer, M.H. Trimble, & J.L. Pattishall. Lower extremity biomechanical alignment does not predict tibial rotation during dynamic activities. American College of Sports Medicine. 2001.

11. Tillman, M.D., **C.J. Hass**, D. Brunt, & J. Miller. Prevalence of jumping and landing techniques in volleyball: An analysis of elite female players. American Society of Biomechanics Meeting. 2001.

10. **Hass, C.J.**, L.M. Moore, M.D. Tillman, J.A. Bauer, & B.C. Focht. The influence of short-term maximal

exercise on the mechanics of running on different surfaces. American College of Sports Medicine. 2000.

9. Bauer, J.A., **C.J. Hass**, K.R. Vincent, L.M. Moore, & J.L. Pattishall. Plantar pressure assessment of healthy elderly during quiet stance. American College of Sports Medicine. 2000.

8. de la Pena, D., C. Janelle, **C. . Hass**, & B. Ellis. Video modeling of a self-paced task: Attentional considerations. AAPHERD. 2000.

7. **Hass, C.J.**, L. Garzarella, D. De Hoyos, D. Connaughton, & M. Pollock. Increases in cardiovascular and muscular fitness in response to total body recumbent stepping. American College of Sports Medicine. 1999.

6. **Hass, C.J.**, L. Garzarella, D. V. De Hoyos, & M.L. Pollock. Effects of resistance training volume on muscular strength and endurance in experienced resistance trained adults. American College of Sports Medicine. 1998.

5. De Hoyos, D., T. Abe, L. Garzarella, **C.J. Hass**, M. Nordman, & M. Pollock. Effects of 6 months of high- or low-volume resistance training on muscular strength and endurance. American College of Sports Medicine. 1998.

4. Pollock, M.L., T. Abe, D.V. De Hoyos, L. Garzarella, **C.J. Hass**, & G. Werber. Muscular hypertrophy responses to 6 months of high- or low-volume resistance training. American College of Sports Medicine. 1998.

3. Vincent, K., D. De Hoyos, L. Garzarella, **C.J. Hass**, M. Nordman, & M. Pollock. Relationship between indices of knee extension strength before and after resistance training. American College of Sports Medicine. 1998.

2. Nordman, M.L., M.L. Pollock, M.N. Fulton, S.F. Ayers, & **C.J. Hass**. Comparison of the isometric strength curves between two lumbar extension machines with different counterbalancing systems. American College of Sports Medicine. 1998.

1. Abe, T., D.V. De Hoyos, L. Garzarella, **C.J. Hass**, M.L. Nordman, & M.L. Pollock. The time course for strength and muscle thickness change in total body resistance training. American College of Sports Medicine. 1997.

## PRESENTATIONS

29. "Enhancing mobility in Parkinson's disease" University Luthern Church, January 2016

28. "Keeping Step with Parkinson's: Balance, Posture, and Gait. MJFox Foundation Podcast, November 2015

27. "Walking and the Basal Ganglia." University of St. Augustine, April 2015.

26. "Empowering the Fight Against Parkinson's disease One Step at a Time." TEDx Talk, March 2015.

25. "Walking around the basal ganglia". Villages Parkinson's and Alzheimer's Support Group meeting, October 2014.

24. "Rehabilitation Insights from Locomotor Adaptation Paradigms." 2014 Incheon Asian Games International Sports Science Congress. Incheon, South Korea, August 2014.

23. Interventions for Persons with Parkinson's disease, Iowa State University, April 2014.

Symposium "Parkinson's disease: Physical/Occupational Therapy for Fall Prevention" Victory Summit, Davis Phinney Foundation, January 2014.

22. "Exercise and Parkinson's disease"; Invited talk. Furman University, Greenville, SC., February 2013.

21. Symposium "The Beneficial Effects of Exercise in Individuals with Parkinson's disease." Annual Meeting of South East Region Chapter of ACSM, February 2013.
20. "Novel Targeting of Mobility Disability". Oak Hammock / Institute of Aging Seminar Series, November 2012
19. "Split-Belt treadmill training induces locomotor plasticity in PD" UF Center for Movement Disorders and Neurorestoration, October 2011.
18. "Splitting Hairs: Optimizing the Exercise Stimulus for Neuroplasticity" UF Brain Imaging Rehabilitation and Cognition Lecture, September 2011.
17. "Tai chi and Dual Task interference". UF Movement Disorders Seminar Series, December 2010.
16. "Parkinson's Disease – Manifestations and Adaptations in Gait and Postural Control" Translational Neuroscience Research Lecture, February 2010.
15. "Taking the PARK out of Parkinson's disease" UF Alumni Lecture Series Naples, FL, March 4, 2008.
14. "On the Issue of Clumsiness: Postural and Locomotor Control in Autism Spectrum Disorders" UF Physical Therapy Seminar Series, April 2008.
13. "Biomechanics, Exercise and Parkinson's disease" University of Florida Movement Disorders Center, April 19, 2007.
12. "Treating Parkinson's disease Pedaling over Pills?" Emerson Alumni Distinguished Lecture Series. University of Florida, April 2007.
11. "Locomotor and Postural Control in Age and Disease" Symposium: Adaptations of Neuromuscular Control with Disuse, Aging, and Training. 35<sup>th</sup> Annual Meeting of the Southeast Chapter of the American College of Sports Medicine, February 8-10<sup>th</sup>, 2007.
10. "Evaluation of Interventions for Special Populations Using Biomechanical Outcomes" Symposium, 53<sup>rd</sup> Annual Meeting of the American College of Sports Medicine, May 31- June 3, 2006.
9. "Dynamic Balance Control during the Initiation of Locomotion" 28th Annual Conference in Movement Sciences Teachers College Columbia University, April 2005.
8. "Understanding the Physiology of EMG" Symposium: Recent development in electromyographic theories and techniques for sports medicine. 32<sup>nd</sup> Annual Meeting of Southeast Chapter of the American College of Sports Medicine, January 29-31<sup>st</sup>, 2004.
7. "Falls in the Elderly: the Role of Biomechanics Research" R.J. Gregor, **C.J. Hass**, S.L. Wolf Special Topics Lecture: Biomechanics 31<sup>st</sup> Annual Meeting of Southeast Chapter of the American College of Sports Medicine, January 30-February 1<sup>st</sup>, 2003.
6. "Creatine monohydrate supplementation: Not just for muscle-heads anymore." Guest Lecture: Center for Research on Complementary and Alternative Medicine in Neurodegenerative diseases, Emory University, Atlanta, GA, Fall 2002.
5. "Running Injuries: Intrinsic and Extrinsic Considerations" Guest Lecture: Special Topics in Biomechanics, Stetson University, DeLand, FL, Spring 2000.
4. "Running Mechanics" Guest Lecturer / teaching assistant: Advanced Kinesiology, Department of Physical Therapy University of Florida, Gainesville, FL, Spring 2000.
3. "Biomechanics of Baseball Pitching" Guest Lecturer/ teaching assistant: Biomechanics, Department of Physical Therapy University of Florida, Gainesville, FL, Fall 1999.
2. "Biomechanics of Track and Field" Guest Lecturer: Coaching Track and Field, University of Florida, Gainesville, FL, Fall 1999.

1. "Biomechanics: Movement Terminology and Skeletal Considerations for Movement" Guest Lecturer:  
Graduate Biomechanics University of Florida, Gainesville, FL.

## SERVICE

### Professional Affiliations

National Association of Kinesiology in Higher Education  
Society for Neuroscience  
American Society of Biomechanics  
American College of Sports Medicine  
Editorial Board, Medicine and Science in Sports and Exercise  
Associate Editor, Medicine and Science in Sports and Exercise

### Journal / Grant Reviewer (20-30 reviews per year)

American Journal of Physical Medicine and Rehabilitation  
Archives of Physical Medicine and Rehabilitation  
British Journal of Sports Medicine  
Journal of Aging and Physical Activity  
Journal of Sports Science and Medicine  
Journal of Geriatrics  
Journal of Gerontology: Medical Sciences  
Medicine and Science in Sports in Exercise (Associate Editor)  
Research Quarterly for Exercise and Sport  
Sports Medicine  
Sports Biomechanics  
Physical Therapy  
Neuroscience Letters  
Journal of Biomechanics  
Journal of Applied Biomechanics  
Human Movement Science  
Gait Posture  
Movement Disorders  
Parkinsonism Related Disorders  
Neurorehabilitation and Neural Repair  
Journal of Sports Science and Medicine  
PM, & R Journal  
Research Quarterly  
Journal of Neuroscience Methods  
Current Ageing Science  
ACSM Health and Fitness

### Grant Reviews

Parkinson's Disease Society  
National Strength and Conditioning Association  
New York University / Polytechnic Institute of New York Seed Grant Program  
NIH NINDS G78, special panel, June 2014  
NIH MRS Study Section Feb 2013, June 2014, October 2015  
NIH FO2B Study Section Feb 2014, June 2015, June 2016  
VARRD Scientific Merit Review Board Feb 2014, August 2014

### Abstract Reviewer

2010, 2012-2016: American Society of Biomechanics Meeting  
2008, 2010-2016: Gait and Clinical Movement Analysis Society  
2013-2015: ACSM

### National Committees



2016- present MJ. Fox Gait Advisory Committee  
 2015- Executive Board American Society of Biomechanics  
 2012: American Society of Biomechanics, Meeting Co-Chair  
 2012-2013: American Society of Biomechanics, program committee  
 2009: Southeast American Society of Biomechanics, Meeting Co-Chair  
 2006-2010: American College of Sports Medicine, Biomechanics Interest Group (2010: Chair)  
 2011- present ACSM Interest Group Forums Committee  
 2003-2008: 2012-Present: American Society of Biomechanics, Membership Committee.  
 2010-Present: Parkinson's Study Group, Functional Neurosurgical Workgroup

#### University of Florida Service

2006: Chair Stanley Lecture Committee  
 2006-Present: Graduate Faculty.  
 2007: Chair, HHP Graduate Faculty Council  
 2008-2009: APK Grade Appeals / Petitions  
 2008-2012: APK Graduate Curriculum  
 2008-2009: BioBehavioral Search Committee  
 2006-2008: APK Merit Evaluation Committee  
 2008-Present: GatorStrong Faculty Advisor  
 2007, 2010-2013: Preview Freshman Orientation Faculty Advisor  
 2009-2010: HHP Undergraduate Curriculum Task Force  
 2009-2010: Neurology Faculty Practice Search Committee  
 2009-2010: UF Movement Disorders Center Search Committee  
 2010-2014, 2015-: APK Graduate Fellowship Committee  
 2010-2011: Biobehavioral Search and Screen Committee  
 2010-2012: APK Graduate Curriculum Committee  
 2010-2011: HHP Teacher of the Year Selection Committee  
 2011-2013: 2015-Present: Faculty Senator  
 2012-2014: Faculty Senate Welfare Council  
 2013-2014: APK Preeminence Search Committee (chair)  
 2013-2014: Common reading Program Committee  
 2013-2016: General Education Committee  
 2013-Present: APK Undergraduate Curriculum Committee  
 2013- Present Advisory Board, Office of Postdoctoral Affairs  
 2014-2016: General Education Assessment Subcommittee  
 2014-2015: Faculty Senate Welfare Council Chair  
 2014-2015 Faculty Senate Steering Committee  
 2014-2015 HHP Faculty Advisory Council (chair)  
 2014-2015 HHP Graduate Faculty Council (chair)  
 2014-2015: Athletic Training Faculty Search and Screen committee  
 2015- present UF Graduate Council  
 2015-present APK Graduate Curriculum Committee  
 2015-present HHP College Curriculum Committee  
 2015- HHP College Assessment Committee  
 2015-2016 UF Faculty Senate SCORS committee  
 2016-Experiential Learning Task Force Chair