

CURRICULUM VITAE
Ryan P. Duncan, PT, DPT

Date: August 1, 2018

Address and Telephone:

Business: Washington University School of Medicine
Program in Physical Therapy
Campus Box 8502
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St. Louis, Missouri 63108
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Present Position: Assistant Professor, Physical Therapy & Neurology

Education:

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Date(s)</u>
B.S.	Maryville University	Health Science	2007
M.P.T.	Maryville University	Physical Therapy	2008
D.P.T.	Washington University	Physical Therapy	2012
M.S.	Washington University	Clinical Investigation	Ant. 2019

Professional Experience:

<u>Position</u>	<u>Institution/Facility</u>	<u>Date(s)</u>
Physical Therapist	Barnes Jewish Hospital	2008-2009
Research Physical Therapist	Washington University	2009-2012
Adjunct Faculty – Physical Therapy	Maryville University of St. Louis	2012-2015
Instructor, Physical Therapy & Neurology	Washington University	2013-2014
Assistant Professor, Physical Therapy & Neurology	Washington University	2014-present

University and Clinical Appointments and Committees:

<u>Position</u>	<u>Institution/Facility</u>	<u>Dates(s)</u>
Physical Therapist	Washington University PT Clinics	2013-present

Licensure/Registration: Missouri PT License No. 2008034888

Honors and Awards:

St. Louis Intercollegiate Athletic Conference Post-Graduate Scholarship	2007
Summa Cum Laude, Maryville University	2007
Dan Hartwig Award for Academic Excellence, Leadership, and Humanitarianism Maryville University	2008
Lorraine F. Lake Award, Program in Physical Therapy, Washington University	2012
World Parkinson Congress – Travel Grant recipient	2013, 2016
NIH Loan Repayment Program Recipient – Clinical Research	2013, 2016-2017
APTA Chattanooga Research Award	2014
Washington University Clinical Research Training Center – Outstanding Citizenship Award	2017

Editorial Responsibilities/Manuscript and Grant Reviewer:

Manuscript Reviewer for <i>Parkinson's Disease</i>	2011-present
Manuscript Reviewer for <i>Journal of Rehabilitation Medicine</i>	2013-present
Manuscript Reviewer for <i>Archives of Physical Medicine & Rehabilitation</i>	2013-present
Manuscript Reviewer for <i>Journal of Parkinson's Disease</i>	2013-present
Manuscript Reviewer for <i>Journal of Neurologic Physical Therapy</i>	2013-present
Manuscript Reviewer for <i>Physical Therapy</i>	2013-present
Manuscript Reviewer for <i>Parkinsonism & Related Disorders</i>	2013-present
Manuscript Reviewer for <i>International Journal of Therapy & Rehabilitation</i>	2013-present
Manuscript Reviewer for <i>Journal of Medical Internet Research – Research Protocols</i>	2013-present
Manuscript Reviewer for <i>Neurodegenerative Disease Management</i>	2014-present
Manuscript Reviewer for <i>American Journal of Physical Medicine & Rehabilitation</i>	2014-present
Manuscript Reviewer for <i>Gait & Posture</i>	2014-present
Manuscript Reviewer for <i>Complementary Therapies in Medicine</i>	2014-present
Manuscript Reviewer for <i>BioMed Research International</i>	2014-present
Grant Reviewer for Netherlands Organization of Scientific Research	2014
Abstract Reviewer for <i>World Confederation of Physical Therapy International Congress</i>	2014
Manuscript Reviewer for <i>Movement Disorders Clinical Practice</i>	2015-present
Manuscript Reviewer for <i>Acta Neurologica Scandinavica</i>	2015-present
Manuscript Reviewer for <i>Experimental Brain Research</i>	2015-present
Manuscript Reviewer for <i>Acta Neurologica Belgica</i>	2015-present
Grant Reviewer for Parkinson's UK	2015, 2016
Abstract Reviewer for APTA Combined Sections Meeting – Neurology Section	2015
Grant Reviewer for LSVT Global, Inc.	2015
Manuscript Reviewer for <i>PLoS One</i>	2015-present
Manuscript Reviewer for <i>Neurorehabilitation & Neural Repair</i>	2015-present
Manuscript Reviewer for <i>Physiotherapy</i>	2016-present
Manuscript Reviewer for <i>BMJ Open</i>	2016-present
Manuscript Reviewer for <i>Clinical Neurology and Neurosurgery</i>	2016-present
Manuscript Reviewer for <i>Clinical Rehabilitation</i>	2016-present
Manuscript Reviewer for <i>Disability and Rehabilitation</i>	2016-present
Manuscript Reviewer for <i>Archives of Gerontology and Geriatrics</i>	2016-present
Manuscript Reviewer for <i>Physiotherapy Theory and Practice</i>	2017-present
Manuscript Reviewer for <i>Systematic Reviews</i>	2017-present

Scientific/Professional Organizations/Societies:

American Physical Therapy Association (APTA)	2008-present
American Physical Therapy Association, Acute Care Section, APTA	2008-2010
Missouri Physical Therapy Association (MPTA)	2008-present
American Physical Therapy Association, Neurology Section, APTA	2010-present
American Physical Therapy Association, Research Section. APTA	2010-present
International Society for Posture and Gait Research (ISPGR)	2010-present
International Parkinson's and Movement Disorder Society	2014-present

Professional Presentations:

“A Comparison of the Accuracy of Two Pulse Oximeter Technologies during Ambulation a Wheeled Walker: a Pilot Study” Platform Presentation APTA – Combined Sections Meeting, Las Vegas, NV	
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February 2008

“Parkinson Disease and Rehabilitation”

Lecture Series

Barnes Jewish Hospital Rehabilitation, St. Louis, MO

May 2010

“Community-based Dance for People with Parkinson Disease”

Platform Presentation

APTA – Combined Sections Meeting, New Orleans, LA

February 2011

“Four Square Step Test Performance in Parkinson Disease”

Platform Presentation

APTA – Combined Sections Meeting, Chicago, IL

February 2012

“An Evidence-Based Approach to Examination and Intervention for People with Parkinson’s Disease Across the Continuum of Disability”

Continuing Education Course

Missouri Physical Therapy Association, Fall Conference, Columbia, MO

October 2012

“Balance Differences between People with and without Freezing of Gait in Parkinson Disease”

Hot Topic Presentation

World Parkinson Congress, Montreal, Canada

October 2013

“Falls in Parkinson Disease: Causes, Prediction, and Prevention”

Educational Session

APTA – Combined Sections Meeting, Indianapolis, IN

February 2015

“An Evidence-Based Approach to Examination and Intervention for People with Parkinson’s Disease Across the Continuum of Disability”

Continuing Education Course

Memorial Hospital – Rehabilitation Special Interest Group, Belleville, IL

August 2015

“An Evidence-Based Approach to Examination and Intervention for People with Parkinson’s Disease Across the Continuum of Disability”

Pre-Conference Continuing Education Course

American Physical Therapy Association, Combined Sections Meeting, Anaheim, CA

February 2016

“Investing in Your Profession: Advocacy in Physical Therapy”

National Advocacy Dinner, Saint Louis, MO

April 2016

“Physical Therapy and Deep Brain Stimulation in Parkinson Disease”
Comprehensive Opportunities in Rehabilitation Research Training – Annual Retreat, Pittsburgh, PA
August 2016

“An Evidence-Based Approach to Examination and Intervention for People with Parkinson’s Disease
Across the Continuum of Disability”
Continuing Education Course
Academy of Neurologic Physical Therapy, Regional Course, Chicago, IL
September 2016

“APTA Legislative Priorities: Role of Professional Advocacy”
Professional Issues Course (PT 8130)
University of Missouri, Columbia, MO
November 2016, 2017, 2018

“Low Back Pain in Parkinson Disease”
Comprehensive Opportunities in Rehabilitation Research Training – Annual Retreat, Newark, DE
August 2017

“Physical Therapy to Reduce Falls in Parkinson Disease”
Midwest Parkinson’s Congress
American Parkinson Disease Association
October 2017

“Physical Therapist Assessment in Parkinson Disease”
BJC Department of Rehabilitation
Annual Continuing Education Course
November 2017

“Exercise in Parkinson Disease”
Davis Phinney Foundation
Victory Summit – Oklahoma City, OK
December 2017

“Applying the Movement System Diagnoses to Neurodegenerative Disease”
Educational Session
APTA – Combined Sections Meeting, New Orleans, LA
February 2018

“Low Back Pain in Parkinson Disease: Impact on Disease Severity, Physical Activity, and Quality of
Life”
Platform Presentation
APTA – Combined Sections Meeting, New Orleans, LA
February 2018

“Exercise in Parkinson Disease”
Davis Phinney Foundation
Victory Summit – Los Angeles, CA
August 2018

“Low Back Pain in Parkinson Disease”

Comprehensive Opportunities in Rehabilitation Research Training – Annual Retreat, Newark, DE
August 2018

“Exercise in Parkinson Disease”

Davis Phinney Foundation
Victory Summit – Albuquerque, NM
October 2018

Consulting Relationships/Board Memberships/Advisory Positions:

Davis Phinney Foundation, Scientific Advisory Board Member, 2015-2017

Editorial Board Member, *Journal of Neurologic Physical Therapy*, 2017-present

Research Support:

Previous:

Research Physical Therapist

“Mechanisms of Deep Brain Stimulation”

PI: Joel Perlmutter

Source: NIH/NINDS (R01 NS041509)

\$3,385,654; 2001-2016

Research Physical Therapist

“Oculomotor Control and Gait in Parkinson Disease”

PI: Earhart

Source: NIH/NCMRR (R01 HD056015)

\$475,200; 2009-2012

Research Physical Therapist

“Unveiling the Natural History of Quality of Life and Mobility Decline in Persons with Parkinson’s Disease: A Prospective Cohort Study”

PI: Earhart

Source: Davis Phinney Foundation

\$96,000; 2009-2012

Research Physical Therapist

“PD4PD: Partnered Dance for Parkinson Disease”

PI: Earhart

Source: Parkinson’s Disease Foundation

\$150,000; 2009-2011

Research Physical Therapist

“Freezing of Gait in Parkinson Disease: An Interdisciplinary Approach”

PI: Gammon Earhart

Source: University Research Strategic Alliance

\$25,000; 2011-2012

Co-Principal Investigator

“Telemedicine & Tango for Parkinson’s Disease: In-Person vs. Virtual Dance Class”

PIs: Ryan Duncan, Marie McNeely, Gammon Earhart
Source: Washington University Department of Neurology / Health South Corporation
\$30,000; 2015-2016

Research Physical Therapist
“Exercise and Parkinson’s: Comparing Interventions and Exploring Neural Mechanisms”
PI: Gammon Earhart
Source: NIH/NINDS (R01 NS077959)
\$1,900,000; 2012-2017

Current:

Scholar
“Physical Therapy and Deep Brain Stimulation in Parkinson Disease”
Primary Mentor: Joel Perlmutter, MD; Secondary Mentor: Linda Van Dillen, PT, PhD
Source: NIH/NICHHD/NCMRR/NINDS (K12 HD055931 – PI: Mueller)
2016-2019

Scholar
“Physical Therapy and Deep Brain Stimulation in Parkinson Disease”
Primary Mentor: Joel Perlmutter, MD; Faculty Mentor: Jane Garbutt, MD
Source: Mentor Training Program in Clinical Investigation (MTPCI) – ICTS
Washington University School of Medicine

Co-Investigator
“Walking and mHealth to Increase Participation in Parkinson Disease (WHIP-PD)”
Source: NIH/NICHHD R01 HD092444
2018-2023

Clinical Title and Responsibilities:

Physical Therapist, Washington University Physical Therapy Clinics

Teaching Title and Responsibilities:

Assistant Professor, Program in Physical Therapy, Department of Neurology

Professional Clinical Doctorate (DPT) Curriculum:

M02 625 Neurology Medicine, Course Master

M02 655 Professional Issues & Skill Development IV, Course Assistant

Trainee Advisement:

Graduate Students:

Katie Webb, PT, DPT – Washington University Program in Physical Therapy (2012-2013)

Alysha Rasch, PT, DPT, Rachel Merideth, PT, DPT, Megan McCormick, PT, DPT, Sarah McDaniel, PT, DPT, Sara Townsend, PT, DPT – Maryville University DPT students (2011-2013)

Samantha Poteet, SPT, Kristin Scherer, SPT, Patrick Jacobs, SPT, Kyle Reynolds, SPT, Whitley Hudson, SPT – Maryville University DPT students (2013-2015)

Cameron Jadali, PT, DPT – Clinical Experience IV – Washington University Program in Physical Therapy (2015)

Sarah Moore, PT, DPT – Washington University Program in Physical Therapy (2016)

John Sosanya, PT, DPT – Washington University Program in Physical Therapy (2017)

Ning Ding, SPT – Washington University Program in Physical Therapy (2018)

Bibliography:

Articles:

Duncan RP, Earhart GM. Measuring participation in individuals with Parkinson disease: relationships with disease severity, quality of life, and mobility. *Disabil Rehabil.* 2011;33(15-16):1440-1446. PMID: 20191047.

Duncan RP, Leddy AL, Earhart GM. Management of balance and gait in older individuals with Parkinson's disease. *Aging Health.* 2011;7(2):205-218.

Duncan RP, Leddy AL, Earhart GM. Five times sit to stand test performance in Parkinson disease. *Arch Phys Med Rehabil.* 2011;92(9):1431-1436. PMID: 21878213.

Duncan RP, Earhart GM. Randomized controlled trial of community-based dancing to modify disease progression in Parkinson disease. *Neurorehabil Neural Repair.* 2012;26(2):132-143. PMID: 21959675.

Duncan RP, Leddy AL, Cavanaugh JT, Dibble LE, Ellis TD, Ford MP, Foreman KB, Earhart GM. Accuracy of fall prediction in Parkinson disease: six-month and 12-month prospective analyses. *Parkinsons Dis.* 2012;1-7. PMID: 22191069.

McNeely ME, **Duncan RP**, Earhart GM. Medication improves balance and complex gait performance in Parkinson disease. *Gait & Posture.* 2012;36(1):144-148. PMID: 22418585.

Pickett KA, **Duncan RP**, Permutt A, Marshall B, Hershey T, Earhart GM. Balance impairment present in young individuals with Wolfram syndrome. *Gait & Posture.* 2012;36(3):619-624. PMID: 22771154.

Duncan RP, Earhart GM. Should one measure balance or gait to best predict falls among people with Parkinson disease? *Parkinsons Dis.* 2012; 923493. PMID: 23213622.

Pickett KA, **Duncan RP**, Hoekel J, Marshall B, Hershey T, Earhart GM. Early presentation of gait impairment in Wolfram Syndrome. *Orphanet J Rare Dis.* 2012;7:92. PMID: 23217193.

Foster ER, Golden L, **Duncan RP**, Earhart GM. Community-based Argentine tango dance program is associated with increased activity participation among individuals with Parkinson's disease. *Arch Phys Med Rehabil.* 2013;94(2):240-9. PMID: 22902795.

Duncan RP, Earhart GM. Four square step test performance in people with Parkinson disease. *J Neurol Phys Ther.* 2013;37(1):2-8. PMID: 23364168.

Duncan RP, Leddy AL, Cavanaugh JT, Dibble LE, Ellis TD, Ford MP, Foreman KB, Earhart, GM. Comparative utility of the BESTest, Mini-BESTest, and Brief-BESTest for predicting falls in individuals with Parkinson disease: a cohort study. Comparison with the BESTest and Mini-BESTest. *Phys Ther.* 2013;93(4):542-50. PMID: 23174567.

Nemanich ST, **Duncan RP**, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Predictors of walking speeds and differences between preferred and fast as possible walking speeds in people with Parkinson disease. *Parkinsons Dis.* 2013; 141720. PMID: 23841020.

Peterson DS, Pickett KA, **Duncan RP**, Perlmutter JS, Earhart GM. Brain activity during complex gait tasks in Parkinson disease. *Clin Neurophysiol.* 2013; 125(5):995-1005. PMID: 24210997.

Peterson DS, Pickett KA, **Duncan R**, Perlmutter JS, Earhart GM. Gait-related brain activity in people with Parkinson disease with freezing of gait. *PLoS One.* 2014;9(3):e90634. PMID: 24595265.

Duncan RP, Earhart GM. Are the effects of community-based dance on disease severity, balance, and functional mobility reduced with time in Parkinson disease? A two-year prospective pilot study. *J Alt Comp Med.* 2014;20(10):757-63. PMID: 25192393.

Duncan RP, Leddy AL, Cavanaugh JT, Dibble LE, Ellis TD, Ford MP, Foreman KB, Earhart, GM. Detecting and predicting balance decline in Parkinson disease: a prospective cohort study. *J Parkinsons Dis.* 2015;5(1):131-9. PMID: 25514984.

Earhart GM, **Duncan RP**, Huang JL, Perlmutter JS, Pickett KA. Comparing interventions and exploring neural mechanisms of exercise in Parkinson disease: a study protocol for a randomized controlled trial. *BMC Neurology.* 2015;15(1):9. PMID: 25652002.

McNeely ME, **Duncan RP**, Earhart GM. A comparison of dance interventions in people with Parkinson disease and older adults. *Maturitas.* 2015;81(1):10-6. PMID: 25771040.

Duncan RP, Cavanaugh JT, Earhart GM, Ellis TD, Ford MP, Foreman KB, Leddy AL, Paul SS, Canning CG, Thackeray A, Dibble LE. External validation of a simple clinical tool used to predict falls in people with Parkinson disease. *Parkinsonism Relat Disord.* 2015;21(8):960-3. PMID: 26003412.

Duncan RP, Leddy AL, Cavanaugh JT, Dibble LE, Ellis TD, Ford MP, Foreman KB, Earhart, GM. Balance differences in people with Parkinson disease with and without freezing of gait. *Gait Posture.* 2015;42(3):306-9. PMID: 26141905.

McNeely ME, **Duncan RP**, Earhart GM. Impact of Dance on Mood, Cognition, Participation, and Quality of Life in Parkinson Disease and Older Adults. *Maturitas.* 2015;82(4):336-41. PMID: 26318265.

McNeely ME, Mai MM, **Duncan RP**, Earhart GM. Differential effects of tango versus Dance for PD in Parkinson disease. *Frontiers Aging Neurosci.* 2015;7:239. PMID: 26733865.

Paul SS, Thackeray A, **Duncan RP**, Cavanaugh JT, Ellis TD, Earhart GM, Ford MP, Foreman KB, Dibble LE. Two-year trajectory of fall risk in people with Parkinson's disease: a latent class analysis. *Archives of Physical Medicine & Rehabilitation.* 2016;97(3):372-9. PMID: 26606871.

Christofolletti G, McNeely ME, **Duncan RP**, Campbell MC, Earhart GM. Factors impacting mobility in Parkinson's disease: evaluating the contribution of age, disease severity, and executive function. *Human Mov Sci*. 2016; 49:308-314. PMID: 27551818.

Seidler KJ, **Duncan RP**, McNeely ME, Hackney ME, Earhart GM. Feasibility and preliminary efficacy of a telerehabilitation approach to group adapted tango instruction for people with Parkinson disease. *Journal of Telemedicine and Telecare*. 2017;23(8):740-6. PMID: 27624469.

Duncan RP, Combs-Miller S, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Do the 10 Meter and 6 Minute Walk Tests measure unique aspects of gait performance in Parkinson disease? *Gait Posture*. 2017; 52:178-182. PMID: 27915221.

Sutter EN, Seidler KJ, **Duncan RP**, Earhart GM, McNeely ME. Relationships Between Gait and Postural Responses in Parkinson Disease. *Journal of Rehabilitation Medicine*. 2017; 49(6):505-511. PMID: 28553677.

Duncan RP, McNeely ME, Earhart GM. Maximum step length test performance in people with Parkinson disease. *Journal of Neurologic Physical Therapy*. 2017; 41(4):215-221. PMID: 28922312.

Prateek GV, Skog I, McNeely ME, **Duncan RP**, Earhart GM, Nehorai A. Modeling, detecting, and tracking freezing of gait in Parkinson disease using inertial sensors. *IEEE Trans Biomed Eng*. 2017. Accepted.

Duncan RP, Van Dillen LR, Garbutt JM, Earhart GM, McNeely ME, Perlmutter JS. Balance and Gait Training for People with Parkinson Disease with Deep Brain Stimulation: a Protocol for a Pilot Randomized Controlled Trial. 2018. *Pilot & Feasibility Studies*. Accepted.

Rawson KS, McNeely ME, **Duncan RP**, Pickett KA, Perlmutter JS, Earhart GM. Exercise and Parkinson Disease: Comparing Tango, Treadmill and Stretching. 2018. *J Neurol Phys Ther*. Accepted.

Rawson KS, Creel P, Templin L, Horin AP, **Duncan RP**, Earhart GM. Freezing of Gait Boot Camp: Feasibility, Safety, and Preliminary Efficacy of a Community-Based Group Intervention. 2018. *Neurodegener Dis Manag*. Accepted.

Duncan RP, Van Dillen L, Garbutt J, Earhart GM, Perlmutter JS. Low Back Pain in Parkinson Disease: Impact on Functional Mobility, Physical Activity, and Quality of Life. Submitted.

Abstracts:

Duncan RP, Aufdenberg C, Rakers N, Silver A. A Comparison of the Accuracy of Two Pulse Oximeter Technologies during Ambulation with a Wheeled Walker: a Pilot Study. APTA – Combined Sections Meeting, Las Vegas, NV. 2009.

Duncan RP, Earhart GM. Relationships Between Participation, Quality of Life and Mobility in Individuals with Parkinson Disease. World Parkinson Congress, Glasgow, Scotland, UK. *Mov Disord*. 2010;25(Suppl 3):S705.

Earhart GM, Rotello JMM, **Duncan RP**. Short-Term Effects of a Community-Based Tango Program on Motor and Non-Motor Symptoms, Activities of Daily Living, and Motor Complications in PD. World Parkinson Congress, Glasgow, Scotland, UK. *Mov Disord*. 2010;25(Suppl 3):S697-S698.

Duncan RP, Rotello JMM, Earhart GM. Dance as Exercise: Effects of a Community-Based Tango Program for People with Parkinson Disease. Parkinson's Disease Foundation: Parkinson Disease & Exercise Conference, Newark, NJ. 2010.

Duncan RP, Earhart GM. Participation and Parkinson disease. Missouri Physical Therapy Association Meeting, St. Louis, MO. 2010.

Duncan RP, Rotello JMM, Earhart GM. Community-based Dance for People with Parkinson Disease. APTA – Combined Sections Meeting, New Orleans, LA. 2011.

Shutte S, Bridwell A, Toalson A, Dougherty J, Siemen K, Moore J, **Duncan RP**, Fick A. Comparison of Two Pulse Oximeter Technologies in Patients Ambulating with a Wheeled Walker in the Acute Care Setting: A Pilot Study. APTA – Combined Sections Meeting, Chicago, IL. 2012

Duncan RP, Earhart GM. Four Square Step Test Performance In Individuals with Parkinson Disease. APTA – Combined Sections Meeting, Chicago, IL. 2012.

Earhart GM, **Duncan RP**, Leddy AL, Cavanaugh JT, Ellis T, Ford MP, Foreman KB, Dibble LE. Prospective Identification of Fallers with Parkinson Disease Using the BESTest and MiniBESTest. APTA – Combined Sections Meeting, Chicago, IL. 2012.

Earhart GM, **Duncan RP**. Should One Measure Balance or Gait to Best Predict Falls Among People with Parkinson Disease? ISPGR – Trondheim, Norway. 2012.

Pickett KA, **Duncan RP**, Permutt A, Hershey T, Earhart GM. Gait and Balance Impairment in Wolfram Syndrome. ISPGR – Trondheim, Norway. 2012.

Duncan RP, Earhart GM. Community-Based Dance for People with Parkinson Disease: An 18-Month Intervention Study. ISPGR – Trondheim, Norway. 2012.

Duncan RP, Earhart GM. Tango and Parkinson disease: effects on motor and non-motor symptoms, activities of daily living, and motor complications. Graduate Research Symposium - Washington University, St. Louis, MO. 2012.

Duncan RP, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Predicting Falls in Parkinson Disease: Is the Brief-BESTest as Good as the Mini-BESTest? APTA Combined Sections Meeting, San Diego, CA. 2013.

Duncan RP, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Prospective Measurement of Balance Decline in People with Parkinson Disease. Missouri Physical Therapy Association – Spring Conference. St. Louis, MO. 2013.

Nemanich ST, **Duncan RP**, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Predictors of Walking Speeds and Differences Between Preferred and Fast as Possible Walking Speeds in People with Parkinson Disease. Movement Disorder Society International Congress – Sydney, Australia. 2013.

Duncan RP, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Prospective Measurement of Balance Decline in People with Parkinson Disease. Movement Disorder Society International Congress – Sydney, Australia. 2013.

Duncan RP, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Predictors of Change in Balance Over 6 and 12 Months in Parkinson Disease. Movement Disorder Society International Congress – Sydney, Australia. 2013.

Duncan RP, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Balance Differences Between People with and without Freezing of Gait in Parkinson Disease. World Parkinson Congress – Montreal, Canada. 2013.

Peterson DS, Pickett KA, **Duncan RP**, Earhart GM. Neural Activity During Imagined Walking in People with Parkinson Disease. APTA Combined Sections Meeting. Las Vegas, NV. 2014.

Rasch A, McDaniel S, McCormick M, Merideth R, Townsend S, **Duncan RP**. The Immediate Effects of Three Unique Treadmill Training Programs on Gait Velocity, Cadence, Stride Length, and Swing Time in Healthy Adults: A Pilot Study. APTA Combined Sections Meeting. Las Vegas, NV. 2014.

Duncan RP, Earhart GM. The Effect of Levodopa on Accurately Identifying Fall Risk in Parkinson Disease. Parkinson's Study Group Symposium. St. Louis, MO. 2014.

Earhart GM, Pickett, KA, **Duncan RP**. Tango or Treadmill? A Comparison of Two Exercise Interventions for People with Parkinson Disease. Barnes Jewish Hospital Multidisciplinary Research Conference. St. Louis, MO. 2014.

Duncan RP, Combs-Miller S, Leddy A, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Are the 6 Minute and 10 Meter Walk Tests Redundant in Parkinson Disease? Barnes Jewish Hospital Multidisciplinary Research Conference. St. Louis, MO. 2014.

Duncan RP, Earhart GM, Pickett KA, Weiss R, Campbell MC. Do Measures of Balance, Motor Severity, or Executive Function Accurately Identify Fall History in Parkinson Disease? APTA Combined Sections Meeting. Indianapolis, IN. 2015.

Poteet S, Hudson W, Scherer K, Reynolds K, Jacobs P, **Duncan RP**. Determining Long-Term Effects of Concussion on Static and Dynamic Balance in Collegiate Soccer Players. Missouri Physical Therapy Association – Spring Conference. St. Louis, MO. 2015.

Duncan RP, McNeely ME, Earhart GM. Characterizing Maximum Step Length Test Performance in People with Parkinson Disease. Missouri Physical Therapy Association – Spring Conference. St. Louis, MO. 2015.

Paul SS, **Duncan RP**, Cavanaugh JT, Earhart GM, Ellis TD, Ford MP, Foreman KB, Leddy AL, Canning CG, Thackeray A, Dibble LE. External Validation of a Simple Clinical Tool Used to Predict Falls in People with Parkinson Disease. International Congress of Parkinson's Disease and Movement Disorders – San Diego, CA. 2015.

Duncan RP, McNeely ME, Earhart GM. Non-Motor Symptoms in Parkinson Disease: Relationships with Motor Performance. APTA Combined Sections Meeting – Anaheim, CA. 2016.

Poteet S, Hudson W, Scherer K, Reynolds K, Jacobs P, **Duncan RP**. Determining Long-Term Effects of Concussion on Static and Dynamic Balance in Collegiate Soccer Players. APTA Combined Sections Meeting – Anaheim, CA. 2016.

Christofolletti G, McNeely ME, **Duncan RP**, Campbell MC, Earhart GM. Factors Impacting Mobility in Parkinson's Disease: Evaluating the Contribution of Age, Disease Severity, and Executive Function. APTA Combined Sections Meeting – Anaheim, CA. 2016

McNeely ME, **Duncan RP**, Earhart GM. Differential Effects of Tango, Treadmill, and Stretching Interventions on Gait in People with Parkinson Disease. Rehabilitation Research at NIH: Moving the Field Forward – Bethesda, MD. 2016.

Duncan RP, McNeely ME, Earhart GM. Does Distance Walked after Two Minutes Predict Total 6 Minute Walk Test Distance in People with Parkinson Disease? International Congress of Parkinson's Disease and Movement Disorders – Berlin, Germany. 2016.

McNeely ME, **Duncan RP**, Earhart GM. Differential Effects of Tango, Treadmill, and Stretching Interventions on Gait in People with Parkinson Disease. International Congress of Parkinson's Disease and Movement Disorders – Berlin, Germany. 2016.

Seidler KJ, **Duncan RP**, McNeely ME, Hackney ME, Earhart GM. Feasibility and Preliminary Efficacy of a Telehealth Approach to Group Tango Instruction for People with Parkinson Disease. International Congress of Parkinson's Disease and Movement Disorders – Berlin, Germany. 2016.

Duncan RP, McNeely ME, Cavanaugh J, Dibble L, Ellis T, Ford M, Foreman KB, Earhart GM. Tracking Progression of Motor Signs and Quality of Life Based on Motor Phenotype in Parkinson Disease. IV STEP. Columbus, OH. 2016.

McNeely ME, **Duncan RP**, Earhart GM. Quantity and Intensity of Physical Activity in People with Parkinson Disease During Exercise Interventions. World Parkinson Congress – Portland, OR. 2016.

Duncan RP, McNeely ME, Earhart GM. Characterizing Maximum Step Length Test Performance in People with Parkinson Disease. World Parkinson Congress – Portland, OR. 2016.

Seidler KJ, **Duncan RP**, McNeely ME, Earhart GM. Relationship Between Gait and Reactive Postural Control in Fallers and Non-Fallers in Parkinson Disease. APTA Combined Sections Meeting – San Antonio, TX. 2017.

Martin R, Fulk G, **Duncan RP**, Cavanaugh JT, Earhart GM, Ellis TD, Ford MP, Foreman KB, Leddy AL, Thackeray A, Dibble LE. Quality of Life Measures that Detect Clinically Important Decline in Parkinson's Disease. APTA Combined Sections Meeting – San Antonio, TX. 2017.

Martin R, Fulk G, **Duncan RP**, Cavanaugh JT, Earhart GM, Ellis TD, Ford MP, Foreman KB, Leddy AL, Thackeray A, Dibble LE. Estimated Clinically Meaningful Decline in Freezing of Gait Questionnaire and Self-Selected Gait Speed for Individuals with Parkinson's Disease. APTA Combined Sections Meeting – San Antonio, TX. 2017.

Duncan RP, Van Dillen LR, Garbutt JM, Earhart GM, McNeely ME, Perlmutter JS. Low Back Pain in Parkinson Disease: Impact on Motor Severity, Physical Activity, and Quality of Life. APTA Combined Sections Meeting –Platform Presentation – New Orleans, LA. 2018.

Professional Activities:

American Physical Therapy Association Neurology Section CSM Programming Committee	2012-present
Missouri Physical Therapy Association Eastern District Director of Technological Advancement	2012-2013
Missouri Physical Therapy Association Eastern District Chairman	2013-2017
Missouri Physical Therapy Association Eastern District Delegate	2014-2017
Missouri Physical Therapy Association Interim Membership Chair	2016
Missouri Physical Therapy Association Chief Delegate	2017-present

Other Professional Activities

Community Activities:

“Living Well Challenge – A Victory Summit and Panel Discussion Webinar on How to Live Well with Parkinson’s” Davis Phinney Foundation, St. Louis, MO	June 2011
Exhibit Hall Volunteer – Neurology Section of APTA at CSM 2013 San Diego, CA	Jan 2013
“Exercise and Physical Therapy in Parkinson Disease” Glen Carbon, Illinois Parkinson Disease Support Group	Nov 2012
“Physical Therapy for Parkinson Disease” Washington University in Saint Louis Movement Disorder Journal Club Meeting	Nov 2012
“Measuring Balance and Predicting Falls in Parkinson Disease” Missouri Baptist Hospital American Parkinson Disease Association (APDA) – Young Onset PD Support Group	Feb 2013

<p>“Physical Therapy and Exercise for Parkinson Disease” Article in Greater St. Louis APDA Newsletter</p>	Feb 2013
<p>“Staying Active Reduces Falls in Older Adults” Article in St. Louis Post-Dispatch</p>	April 2013
<p>“Update on Exercise and Locomotion in Parkinson Disease” Missouri Baptist Hospital American Parkinson Disease Association (APDA) – Young Onset PD Support Group</p>	Jan 2015
<p>“2015 APTA House of Delegates Report” St. Louis Community College – Meramec Missouri Physical Therapy Association – Eastern District</p>	May 2015
<p>“Screening for and Preventing Falls in Parkinson Disease” Washington University in Saint Louis Movement Disorders Journal Club Meeting</p>	May 2015
<p>“DOPA: Discussion on Physical Activity in Parkinson Disease” Glen Carbon, Illinois American Parkinson Disease Association – PD Support Group</p>	July 2015
<p>“Physical Therapy for Parkinson Disease: How to Prep for your First Visit” Guest Blog Author Michael J. Fox Foundation</p>	July 2015
<p>“Why You Should Get Physical Therapy for Parkinson’s Disease” Guest Blog Author GetPT1st.com</p>	Sept 2015
<p>“Boxing, Cycling, Tango, Oh My! – Effects of Exercise in Parkinson Disease” Kirkwood, Missouri American Parkinson Disease Association – PD Support Group</p>	May 2016
<p>“2016 APTA House of Delegates Report” St. Louis Community College – Meramec Missouri Physical Therapy Association – Eastern District</p>	May 2016
<p>“Pulse Q&A with Ryan Duncan, PT, DPT” The Pulse Blog for PT Students American Physical Therapy Association</p>	Oct 2016
<p>“Get to the Table or Be on the Menu – Importance of Professional Advocacy” Senior Rehab Project - Podcast seniorrehabproject.com</p>	Oct 2016
<p>“Falls in Parkinson Disease: Can They Be Reduced or Prevented?” Article in Greater St. Louis APDA Newsletter</p>	May 2017

“2017 APTA House of Delegates Report” May 2017
 St. Louis Community College – Meramec
 Missouri Physical Therapy Association – Eastern District

American Parkinson Disease Association – Greater St. Louis Chapter June 2017
 2017 Optimism Walk
 Planning Committee Member

“Update on Exercise in Parkinson Disease” July 2017
 American Parkinson Disease Association
 Ste. Genevieve, MO Support Group

“2018 APTA House of Delegates Report” April 2018
 Rockhurst University
 Missouri Physical Therapy Association – Spring Conference

“Falls and Fall Risk in Older Adults” July 2018
 WUPT Lecture Series at OASIS
 OASIS, Clayton, MO

Continuing Education:

- Barnes Jewish Hospital Rehabilitation Department Lecture Series 2008, 2009
- Missouri Physical Therapy Association - Fall Conference 2008,2012-2017
- APTA Combined Sections Meeting 2009,2011-2018
- Washington University Program in Physical Therapy – Research Seminars 2010-2018
- World Parkinson Congress 2010-2016
- Missouri Physical Therapy Association - Spring Conference 2010,2013-2018
- APTA Combined Sections Meeting, Pre-Conference Course: Therapeutic Management of Neurologic Gait 2011
- Washington University, Program in Physical Therapy, Steven J. Rose Symposium 2012,2014-2018
- APTA Learning Center: Parkinson’s Disease: A Practical Approach to Evaluation & Treatment for the Physical Therapist 2012
- APTA Combined Sections Meeting, Pre-Conference Course: A Comprehensive Approach to Treating Parkinson Disease Across the Continuum of Disability 2012
- International Symposium on Postural Instability and Falls in Parkinson Disease 2013
- International Parkinson’s & Movement Disorders Society and National Parkinson Foundation – Allied Team Training for Parkinson’s Disease 2014
- APTA Neurology Section – Early Career Investigator Workshop 2015
- APTA IV Symposium on Translating Evidence into Practice (STEP) 2016
- Washington University School of Medicine –Ethical and Responsible Conduct of Research 2017
- NIH Regional Seminar 2017
- NIH Regional Seminar: Human Research Reviews: Mastering the Process 2017

Media Coverage of Research

“Parkinson’s ‘Freezers’ Likely to Stumble”, MedPage Today, October 2013

“Passionate and precise, the Tango is also therapeutic”, The Washington Post, September 2014