

# Chelsea E. Macpherson, PT, DPT, PhD

ABPTS Board Certified Neurologic Physical Therapist  
Post Doctoral Associate  
Program in Physical Therapy  
Washington University in St. Louis, St. Louis, MO  
[mchelsea@wustl.edu](mailto:mchelsea@wustl.edu)

## **EDUCATION**

- 2024-Present Washington University in St. Louis, St. Louis, MO  
Program in Physical Therapy  
Mentors: Dr. Catherine Lang, PT, PhD, FASNR, FAPTA, Dr. Keith Lohse, PhD, PStat
- 2019-2024 Columbia University Teachers College, New York, NY  
Department of Movement Sciences  
PhD in Kinesiology, Concentration: Motor Learning and Control  
Mentor: Dr. Lori Quinn, PT, EdD, FAPTA
- 2015-2016 Boston University, Boston, MA  
Sargent College for Health and Rehabilitation Sciences  
Neurological Physical Therapy Residency  
Mentor: Dr. Terry Ellis, PT, PhD, FAPTA
- 2011-2014 Columbia University, New York, NY  
College of Physicians & Surgeons  
Doctor of Physical Therapy (DPT), Concentration: Adult Neurorehabilitation  
Mentor: Dr. Clare Bassile, PT, EdD
- 2006-2011 Syracuse University, Syracuse, NY  
School of Education/School of Arts & Sciences  
Bachelor of Science in Exercise Science, Psychology, Gerontology  
Mentors: William J. Hoyer, PhD, Scott Collier, PhD  
*Full Scholarship Division I Athlete - Rowing*  
*Graduated Magna Cum Laude*

## **PROFESSIONAL POSITIONS**

- 08/19-08/24 Multi-Disciplinary Lab Coordinator & Senior Neuro Physical Therapist Columbia University Irving Medical Center – Movement Disorders Clinic
- 10/16-08/19 Senior Neuro Physical Therapist Stanford Health Care
- 10/16-08/19 Research Physical Therapist (Neuromuscular Division – John W. Day Lab) Stanford School of Medicine
- 08/15-02/16 Inpatient Neurorehabilitation Resident Beth Israel Deaconess Medical Center
- 02/16-09/16 Outpatient Neurorehabilitation Resident Spaulding Rehabilitation Hospital
- 08/15-09/16 Outpatient Neurorehabilitation Resident & Research Therapist Boston University Center for Neurorehabilitation
- 07/14-07/15 Staff Physical Therapist New York Presbyterian Hospital – Columbia University Medical Center

## **AWARDS**

- 2022 Provost Grant
- 2022 Dissertation Fellowship
- 2019-Present Harkness Fellowship
- 2021 Anne Gentile Memorial Scholarship
- 2017 Stanford Healthcare Excellence in Outpatient Clinical Care
- 2014 Columbia University Alma S. Merians Award for Excellence in Research
- 2014 Columbia University Faculty Award for Excellence in Neurorehabilitation

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2011-2014	Columbia University Academic Merit Scholarship
2013	Columbia University Rudin Family Scholarship
2011	Syracuse University Orange Oar Award
2010	Syracuse University Bigelow Award for Courage

### **DISSERTATION RESEARCH**

1. **Study 1:** *Physical Activity Coaching over Telehealth in Early-Mid Degenerative Cerebellar Disease (Engage Ataxia)* Clinical Trial Number: NCT05157802
  - a. Project Goals: This study evaluated the feasibility and preliminary efficacy of a 4-month physical activity behavior change intervention in people with degenerative cerebellar ataxias.
2. **Study 2:** *Delivery of a remote motor priming intervention in hereditary forms of degenerative cerebellar ataxia: a single case experimental design (PRIME-Ataxia Pilot)*
  - a. Project Goals: This was a pilot trial evaluating the feasibility and preliminary efficacy of an 8-week telehealth delivered motor priming intervention in people with hereditary forms of cerebellar ataxia.
3. **Study 3:** *Delivery of a remote motor priming intervention in Spinocerebellar Ataxia Type 1 2 3 and 6: a Randomized Controlled Trial (PRIME-Ataxia RCT)* Clinical Trial Number: NCT05826171
  - a. Project Goals: This is a full-scale evaluation of a 16-week randomized controlled trial that explores the telehealth delivery of high versus low intensity exercise prior to balance training. The primary aims of this study are to (1) determine the impact of exercise on disease specific measures of motor or cognitive function, (2) explore the use of a remotely delivered visuomotor adaptation task as a proxy for change in motor learning.

### **PUBLICATIONS (PEER-REVIEWED JOURNALS)**

1. **Macpherson CE**, Fineman JB, Chandrana A, Quinn L. Development of a Physical Therapy Assessment Battery for Parkinson Disease. *In press, International Telerehabilitation PT Journal 2023 (in press)*.
2. Kipnis D, Lin M, Pacheco Alissa, Mensah N, Gu Y, **Macpherson CE**, Kempner K, Parker A, Coley B, Coley D, Shah H, Quinn L. Identifying Barriers and Facilitators to Accessing Care for Members of the Black Diaspora and Hispanic People Affected by Parkinson Disease: A Qualitative Study. *Parkinsonism and Related Disorders*
3. Kipnis D, Pacheco Alissa, Delfing D, Mensah N, **Macpherson CE**, Reiger J, Parker A, Coley B, Coley D, Shah H, Quinn L. Community-based participatory research approach to address healthcare disparities confronting members of the Black diaspora with Parkinson's disease. *Parkinsonism and Related Disorders 2023 (in press)*.
4. **Macpherson CE**, Bartsch B, King M, Satchidanand A, Kuo SK, Quinn L. Delivery of a remote motor priming intervention in cerebellar ataxia: a single case experimental design. *Phys Ther Rehabil 2023 (in press)*.
5. Pacheco A, van Schaik T, Paleyes N, Blacutt M, Vega J, Schreier A, Zhang H, **Macpherson C**, Desai R, Jancke G, Quinn L. A Wearable Vibratory Device (The Emma Watch) to Address Action Tremor in Parkinson Disease: Pilot Feasibility Study, *JMIR Biomed Eng 2023;8:e40433*, URL: <https://biomedeng.jmir.org/2023/1/e40433>, DOI: 10.2196/40433
6. **Macpherson CE**, Shih HS, Pacheco A, Magill R, Quinn L. On "Updates in Motor Learning: Implications for Physical Therapist Practice and Education." Leech KA, Roemmich RT, Gordon J, Reisman DS, Cherry-Allen KM. *Phys Ther.* 2022; 1093:pzab250 [published online ahead of print, 2022 Jun 17]. *Phys Ther.* 2022;pzac083. doi:10.1093/ptj/pzac083 [Letter to the Editor].
7. Shih H-JS, **Macpherson CE**, King M, Delaney E, Gu Y, Reid J, Fineman J, Yu G, Rieger J, Satchidanand A, Shah H, Alcalay RN, Quinn L. Physical Activity coaching via telehealth for people with Parkinson disease – a cohort study. *J Neurol Phys Ther.* 2022 Oct 1;46(4):240-250. doi: 10.1097/NPT.0000000000000410. Epub 2022 Sep 1. PMID: 36170256.
8. Duong T, Wolford C, McDermott MP, **Macpherson CE**, Pasternak A, Glanzman AM, Martens WB, Kichula E, Darras BT, De Vivo DC, Zolkipli-Cunningham Z, Finkel RS, Zeineh M, Wintermark M, Sampson J, Hagerman KA, Young SD, Day JW. Nusinersen Treatment in Adults With Spinal Muscular Atrophy. *Neurol Clin Pract.* 2021 Jun;11(3):e317-e327. doi: 10.1212/CPJ.0000000000001033. PMID: 34476123; PMCID: PMC8382360.

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9. Quinn L, **Macpherson CE**, Long K, Shah H. Promoting Physical Activity via Telehealth in People With Parkinson Disease: The Path Forward After the COVID-19 Pandemic? *Physical Therapy*. 2020;100(10):1730-1736.
10. Wendel N, **Macpherson CE**, Webber K, Hendron K, DeAngelis T, Colon-Semenza C, Ellis T. Accuracy of Activity Trackers in Parkinson Disease: Should We Prescribe Them? *Phys Ther*. 2018 Aug 1;98(8):705-714. doi: 10.1093/ptj/pzy054. PMID: 29718452.
11. **Macpherson CE**, Bassile CC. Pulmonary Physical Therapy Techniques to Enhance Survival in Amyotrophic Lateral Sclerosis: A Systematic Review. *J Neurol Phys Ther*. 2016 Jul;40(3):165-75. doi: 10.1097/NPT.000000000000136. PMID: 27164308.

#### **Submitted, In Review:**

12. (*Submitted, In Review*) **Macpherson CE**, Kempner K, King M, Kuo SH, Quinn L. Physical Activity Coaching over Telehealth in Early-Mid Degenerative Cerebellar Disease (ENGAGE-Ataxia).
13. (*Submitted, In Review*) Wong CK, **Macpherson CE**. Can joint mobilization unlock hip motion and reduce signs of gait festination in Parkinson Disease? A case report. *JOSPT*
14. (*Submitted, In Review*) Lowell ER, **Macpherson CE**, Villarreal-Cavazos K, Chandrana A, Sevitz J, Viet K, Dakin A, Quinn L, Troche M. An Interdisciplinary Approach to Telehealth Treatment in Parkinson's Disease: A Review of the Literature and Case Series. *Neurodegenerative Disease Management*.

#### **In Preparation:**

15. (In Preparation) **Macpherson CE**, Awad F, Rana V, Kuo SH, Quinn L. Fatigue limits motor and cognitive improvements after high intensity exercise in people with spinocerebellar ataxia. *JNPT*
16. (In Preparation) Effects of exercise on cognition in people with degenerative cerebellar disease. **Macpherson CE**, Bjalme-Evans M, Awad F, Quinn L. *Movement Disorders Clinical Practice*.
17. (In Preparation) **Macpherson CE**, Wani DK, Li Haoyu, Rana V, Blacutt M, Dal Bello Haas V, Quinn L. Physical Therapy and Exercise Interventions Across Disease Stages for People with Amyotrophic Lateral Sclerosis: A systematic review. *JNPT*
18. (In Preparation) PhyCARE reporting guidelines for case reports in physiotherapy and rehabilitation: A consensus-based development. Naqvi W, Mishra G, Zareen S, Arora S, Goyal C, Pashine A, Quazi Z, **Macpherson CE**, Kiekens C, Negrini S, Zadro J, Hughes C, Anwer S. *BMJ Evidence Based Medicine*.

#### **GRANTS IN PREPARATION/REVIEW**

1. Teachers College, Columbia University. Provost Grant. Engage-Ataxia – Results after 1 Year from a Telehealth Physical Activity Coaching Intervention in People with Cerebellar Ataxia. **Awarded November 2022.**
2. Teachers College, Columbia University. Dissertation Grant. PRIME-Ataxia RCT – Priming Motor Learning with Exercise in those with Spinocerebellar Ataxia: A Randomized Controlled Trial of Telerehabilitation. **Awarded August 2022.**

#### **PUBLICATIONS (BOOKS, CHAPTERS, OTHER PEER REVIEWED)**

1. Michael J Fox Foundation Exercise Guide for People with Parkinson Disease (Author) 2023
2. The PD Movers We Keep Moving: Living and Thriving with Parkinson Disease in Our Black and African American Communities (Editor) 2022
3. Charcot-Marie-Tooth Association Clinical Practice Guidelines for Rehabilitation Specialists (Author) 2018
4. Protocol for Sub-Maximal Exercise Testing for Adults with Neuromuscular Diseases (Author) 2019

#### **SCIENTIFIC ABSTRACTS AND POSTER PRESENTATIONS**

1. **Macpherson CE**, Kuo SH, Quinn L. Feasibility and Preliminary Efficacy of a Pilot Telehealth Physical Activity Intervention in Degenerative Cerebellar Disease (*Engage-Ataxia*). *Movement Disorders Society*. Poster.
2. **Macpherson CE**, Awad F, Rana V, Kuo SH, Quinn L. Is fatigue a rate limiting factor for achieving functional gains in people with spinocerebellar ataxia? (PRIME-Ataxia RCT). *Movement Disorders Society*. Poster.

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3. Wani D, Chandrana A, Pacheco A, Kipnis D, Alomar J, **Macpherson CE**, Fineman J, Quinn L. A telehealth physical activity coaching program can maintain physical activity and exercise confidence in people with Parkinson Disease: A cohort study. *Movement Disorders Society*. Poster.
4. Pacheco A, Long K, Wani D, Alomar J, Kipnis D, **Macpherson CE**, Quinn L. Role of Wearable Devices in a Physical Activity Coaching Program for People with Parkinson's Disease (PwP). *Movement Disorders Society*. Poster.
5. Dolhun R, Long K, **Macpherson CE**, Quinn L. Lifestyle Medicine in Neurology: An Exercise Guide for People with Parkinson Disease.
6. Sevitz JS, Quinn L, Dakin AE, Lowell ER, Elkarif SP, **Macpherson CE**, Troche MS. (2023) Patient-reported Experience of an Interdisciplinary Telehealth Model to Rehabilitate Airway Protection in Neurodegenerative Disease. *Dysphagia Research Society*. Poster.
7. **Macpherson CE**, Bartsch B, King M, Kuo SH, Quinn L. (2022) Telehealth High Intensity Interval Training prior to Balance in Cerebellar Ataxia: A Case Series. *International Cerebellar Ataxia Research Conference*. Poster.
8. **Macpherson CE**, Bartsch B, King M, Kuo SH, Quinn L. (2022) Engage-Ataxia: Preliminary findings 1 year after inception. *International Cerebellar Ataxia Research Conference*. Poster.
9. **Macpherson CE**, Bartsch B, King M, Kuo SH, Quinn L. (2022) Telehealth High Intensity Interval Training prior to Balance in Cerebellar Ataxia: A Case Series. *American Physical Therapy Association Combined Sections Meeting*. Poster.
10. **Macpherson CE**, King M, Shih HJS, Rieger J, Fineman J, Reid J, Pacheco A, Shah H, Alcalay R, Quinn L. (2021) *Engage-PD*: a Physical Activity Coaching Program via Telehealth for people with Parkinson's Disease - Preliminary results a year after inception. *Movement Disorders Society Virtual Congress*. Online. Poster.
11. Shih HJS, Rieger J, Satchidanand A, **Macpherson CE**, King M, Yu G, Fineman J, Shah HG, Alcalay RN, Quinn L. (2021). Engage-PD: Which Patients Benefit Most from a Telehealth Physical Activity Coaching Program for Parkinson's Disease? *Academy of Neurologic Physical Therapy Virtual Conference*. Online. Poster.
12. **Macpherson CE**, Bartsch B, King M, Kuo SH, Quinn L. (2021) Telehealth High Intensity Interval Training prior to Balance in Cerebellar Ataxia: A Case Series. *American Physical Therapy Association Combined Sections Meeting*. Poster.
13. Fineman JB, **Macpherson CE**, Shih S, Quinn L. (2021) Development of a Physical Therapy Brief Battery for Parkinson's Disease (BTB-PD). *American Physical Therapy Association Combined Sections Meeting*. Poster.
14. **Macpherson CE**, Kuo SH, Quinn L. (2020) Engage-Ataxia: Promoting Physical Activity Uptake in those with Ataxia. *National Ataxia Foundation Annual Investigators Meeting*. Online. Poster & Platform.
15. **Macpherson CE**, Quinn L. (2020) Aerobic Exercise combined with or without Resistance at Threshold for Expiratory Pressure in individuals with Parkinson's Disease (PD) (AERaTE-PD). *Columbia Women in Science Conference*. Online. Poster.
16. **Macpherson CE**, Quinn L. (2020) Engage-Ataxia: Promoting Physical Activity Uptake in those with Ataxia. *Columbia Women in Science Conference*. Online. Poster.
17. **Macpherson CE**, Kuo SH, Quinn L. (2020) Priming Motor Learning through Exercise in those with Cerebellar Ataxia: A Pilot Study (PRIME-ATAXIA). *Columbia Women in Science Conference*. Online. Poster.
18. **Macpherson CE**, King M, Long K, Shah H, Quinn L. (2020) *Engage-PD*: Transitioning to Telehealth amidst COVID-19 Pandemic. *Movement Disorders Society Virtual Congress*. Online. Poster.
19. **Macpherson CE**, Kuo SH, Quinn L. (2020) Priming Motor Learning through Exercise in those with Cerebellar Ataxia: A Pilot Study (PRIME-ATAXIA). *Society for Neuroscience Neuromatch 3.0*. Online. Poster & Platform.
20. Duong T, Wolford C, McDermott MP, **Macpherson CE**, Pasternak A, Glanzman AM, Martens WB, Kichula E, Darras BT, De Vivo DC, Zolkipli-Cunningham Z, Finkel RS, Zeineh M, Wintermark M, Sampson J, Hagerman KA, Young SD, Day JW. (2020). Nusinersen Treatment in Adults With Spinal Muscular Atrophy. *American Academy of Neurology*. Poster & Platform.

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21. Wolford C, **Macpherson CE**, McDermott MP, Pasternak A, Glanzman AM, Martens WB, Kichula E, Darras BT, De Vivo DC, Zolkipli-Cunningham Z, Finkel RS, Zeineh M, Wintermark M, Sampson J, Hagerman KA, Duong T, Day JW.. (2019). Nusinersen Treatment in Adults With Spinal Muscular Atrophy. *CureSMA*. Poster & Platform.
22. Wolford C, **Macpherson CE**, McDermott MP, Pasternak A, Glanzman AM, Martens WB, Kichula E, Darras BT, De Vivo DC, Zolkipli-Cunningham Z, Finkel RS, Zeineh M, Wintermark M, Sampson J, Hagerman KA, Duong T, Day JW. (2018). Nusinersen Treatment in Adults with Spinal Muscular Atrophy. *American Academy of Neurology*. Poster & Platform.
23. Wolford C, **Macpherson CE**, Day JW. (2018). Relationship Between Subjective and Objective Outcomes in Adults with Spinal Muscular Atrophy treated with Nusinersen. *Muscular Dystrophy Association Annual Conference*. Poster.
24. Wolford C, **Macpherson CE**, Day JW. (2018). Experience Using Spinraza to Treat Adults with Spinal Muscular Atrophy. *Muscular Dystrophy Association Annual Conference*. Poster.
25. Duong T, Glanzman AM, **Macpherson CE**, Pasternak A, M, Sampson J, Hagerman KA, Day JW. (2018). CHOP Attend, Modifications on the CHOP Intend for Adults Receiving Nusinersen (Spinraza). *CureSMA*. Poster.
26. Wendel N, **Macpherson CE**, Ellis T. (2018) Validity of consumer-based accelerometers in persons with Parkinson Disease. *American Physical Therapy Association Combined Sections Meeting*. Poster.
27. **Macpherson CE**, Bassile C. (2017) Pulmonary Techniques Throughout Progressive States of Amyotrophic Lateral Sclerosis. *American Physical Therapy Association Combined Sections Meeting*. Poster.
28. **Macpherson CE**, Abbruzzese L. (2014) Interventions to Improve Exercise-Self Efficacy in Older Adults: A Systematic Review. *American Physical Therapy Association Combined Sections Meeting*. Poster.

#### **PRESENTATIONS – NATIONAL AND INTERNATIONAL**

1. **Macpherson CE**, Awad F, Rana V, Kuo SH, Quinn L. Is fatigue a rate limiting factor for achieving functional gains in people with spinocerebellar ataxia? (PRIME-Ataxia RCT). *American Physical Therapy Association Combined Sections Meeting*. Platform. Houston, TX. February 2025.
2. **Macpherson CE**, Awad F, Rana V, Kuo SH, Quinn L. Is fatigue a rate limiting factor for achieving functional gains in people with spinocerebellar ataxia? (PRIME-Ataxia RCT). *Movement Disorders Society*. Platform. Philadelphia, PA. September 2024.
3. **Macpherson CE**, Bartsch B, King M, Kuo SH, Quinn L. (2022) Engage-Ataxia: Preliminary findings 1 year after inception. *International Cerebellar Ataxia Research Conference*. Platform. Dallas, TX. November 2022.
4. Bassile C, Casternado L, **Macpherson CE**, Porciuncula F. Research in Physical Therapy, What, Where, How? Columbia University Doctor of Physical Therapy Program, New York, New York. November 2022.
5. Babcock R, Kegemeyer D, **Macpherson CE**. Strategies for Implementing the Clinical Practice Guidelines in People with Parkinson Disease. American Neurological Physical Therapy Conference. Minneapolis, Minnesota. October 2022.
6. Bassile C, Coutts K, **Macpherson CE**, St. Claire K. Considering a Neurological PT Residency Program. Columbia University Doctor of Physical Therapy Program, New York, New York. October 2022.
7. **Bassile C, Casternado L, Macpherson CE, Porciuncula F**. Research in Physical Therapy, What, Where, How? Columbia University Doctor of Physical Therapy Program, New York, New York. November 2020. Virtual
8. **Macpherson CE**. Priming Motor Learning through Exercise in those with Cerebellar Ataxia: A Pilot Study (PRIME-ATAXIA). *Society for Neuroscience Neuromatch 3.0*. Online. Virtual Platform Presentation (International). October 2020
9. **Macpherson CE**. Stanford Neuromuscular Division Grand Rounds: Advanced Pulmonary Rehabilitation for the Neuromuscular Patient, Stanford School of Medicine, Palo Alto, California. July 2019

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10. **Macpherson CE.** Stanford Health Care Rehabilitation Grand Rounds: Inpatient Physical & Occupational Therapy for your patient with ALS, Stanford Health Care, Palo Alto, California. June 2019
11. **Macpherson CE.** Stanford Rehabilitation Grand Rounds: Movement Disorders and Rehabilitation, Stanford Health Care, Palo Alto, California. January 2019.
12. Bassile C, **Macpherson CE,** St. Claire K. Considering a Neurological PT Residency Program. Columbia University Doctor of Physical Therapy Program, New York, New York. November 2018.
13. **Macpherson CE.** The Role of Exercise with Myotonic Dystrophy. Annual Myotonic Dystrophy Association Conference, Menlo Park, California. March 2018.
14. **Macpherson CE.** Stanford Rehabilitation Grand Rounds: Movement Disorders and Rehabilitation, Stanford School of Medicine, Palo Alto, California. January 2018.
15. **Macpherson CE.** Stanford Neuroimmunology Grand Rounds: Rehabilitation with Multiple Sclerosis. Stanford School of Medicine, Palo Alto, California. November 2017.
16. **Macpherson CE.** Stanford Rehabilitation Grand Rounds: Movement Disorders and Rehabilitation, Stanford School of Medicine, Palo Alto, California. March 2018.
17. **Macpherson CE.** Stanford Neuromuscular Division Grand Rounds: Physical Therapy approaches to Neuromuscular Diseases. Stanford School of Medicine, Palo Alto, California, March 2017.
18. **Macpherson CE.** Beth Israel Deaconess Medical Center Rehabilitation Grand Rounds: Acute CVA Rehabilitation Exploration into Error Augmentation. Beth Israel Deaconess Medical Center, Boston, Massachusetts, December 2015.
19. **Macpherson CE.** Beth Israel Deaconess Medical Center ALS Clinic Rounds - Pulmonary Techniques to Enhance Rates of Survival for those with ALS. Beth Israel Deaconess Medical Center, Boston, Massachusetts, November 2015.
20. **Macpherson CE.** New York Presbyterian Hospital Grand Rounds (Department of Rehabilitation Medicine): Pulmonary Techniques Throughout Progressive States of Amyotrophic Lateral Sclerosis. New York Presbyterian Hospital Grand Rounds, New York City, New York. July 2014.

### **WEBINARS AND PODCASTS**

1. APTA Webinar Series: Telehealth for Neurologic Populations
2. Promoting Physical Activity over Telehealth in Parkinson's - CEU Course on the *Engage-PD* Trial

### **PRESENTATIONS – LOCAL**

1. Results from Engage-Ataxia and PRIME-Ataxia Pilot Studies. Treasure Coast Ataxia Support Group, June 10, 2023. Virtual.
2. Exercise and Brain Health. St. Luke's A.M.E. Church/Harlem Community Center. March 12, 2023. Virtual.
3. Exercise & Therapeutic Strategies in Ataxia. Arizona Ataxia Support Group, June 6, 2022. Virtual.
4. Ask the expert: Q&A Physical Therapy and Ataxia. Treasure Coast Support Group, April 9, 2022. Virtual.
5. Exercise & Therapeutic Strategies in Ataxia. North Carolina Ataxia Support Group, March 25, 2022. Virtual.
6. Broadway for Ataxia: Person First Language – People are more than a Disease. February 6, 2022. Virtual.
7. Fall Prevention and Recovery in those with Ataxia. SCA6 Support Group, January 21, 2022. Virtual.
8. Exercise & Therapeutic Strategies in Ataxia. Treasure Coast Support Group, November 6, 2021. Virtual.
9. Exercise & Spinocerebellar Ataxia. SCA6 National Support Group, September 20, 2021. Virtual.
10. Considerations for Assistive Devices and Durable Medical Equipment for Complex Movement Disorders. Multi-Disciplinary Clinic Rounds, Columbia University Irving Medical Center, September 10, 2021. Virtual.
11. Exercise and Rehabilitation Studies in Ataxia. Treasure Coast Support Group, August 21, 2021. Virtual.
12. Neurorehabilitation Strategies for those with Ataxia. Broadway for Ataxia, Columbia University Irving Medical Center, January 2021. Virtual.

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13. Tough Conversations with those affected by Terminal Diseases. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. July 2019
14. Physical & Occupational Therapy approaches for those with Neuromuscular Disorders. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. July 2019
15. Physical Therapy for those with Neuromuscular Disorders. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. July 2019
16. Novel Rehabilitation Approaches for those with Dystonia. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. December 2019
17. Novel Rehabilitation Approaches for those with Parkinson's Disease. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. September 2019
18. Advanced Pulmonary Rehabilitation in those with ALS. Stanford Health Care Outpatient Rehabilitation Inservice, Palo Alto, California. March 2018
19. Bilateral Vestibular Hypofunction s/p Heavy-Dose Antibiotic Administration. Beth Israel Deaconess Medical Center, Boston, Massachusetts, December 2015.
20. The Mystery of a Differential Diagnosis among Movement Disorders. Boston University Center for Neurorehabilitation Inservice. Boston, Massachusetts, December 2015.
21. Transfers, Guarding, and Gait What should Medical Residents know? New York Presbyterian Hospital, New York City, New York. June 2015.
22. Balance & Parkinson's Disease. Boston University Center for Neurorehabilitation PD Support Group. Boston, Massachusetts, March 2016.
23. Sedentary Behavior and Home Safety in Parkinson Disease. Boston University Center for Neurorehabilitation PD Support Group. Boston, Massachusetts, December 2015.
24. Exercise & Parkinson Disease. Boston University Center for Neurorehabilitation PD Support Group. Boston, Massachusetts, September 2015.
25. Safety in the Workplace, a Role for Body Mechanics in Nursing. Columbia University Medical Center School of Nursing. New York City, New York. March 2013.

#### **LEADERSHIP AND ADVISORY POSITIONS**

1. Movement Disorders Society Telemedicine Repository – Consultant for Rehabilitation Section 2021
2. Movement Disorders Multi-Disciplinary Lab Coordinator for Teachers College & Columbia University Irving Medical Center 2021-Present
3. APTA Neurology Section Parkinson's Disease Knowledge Translation Taskforce (Member) 2019-Present
4. Broadway for Ataxia – Consultant for Rehabilitation Section 2021-Present
5. Lab Manager of the Neurorehabilitation Lab, Teachers College, Columbia University December 2019-December 2022
6. APTA Neurologic Standard Setting Committee 2020-2021
7. APTA Neurology Section Movement Analysis Taskforce (Content Contributor) 2019-2020
8. Consulting Physical Therapist, Parkinson's Disease Center of Excellence, Columbia University Irving Medical Center, NY, NY September 2019-Present

#### **TEACHING**

1. Teachers College, Columbia University (Course Instructor)
  - a. 09/23-12/23 Movement Disorders
2. Teachers College, Columbia University (Teaching Assistant)
  - a. 09/21-12/21 Biomechanics
3. Teachers College, Columbia University (Guest Lecturer)
  - a. 2020 Movement Disorders – Multiple Sclerosis
  - b. 2020 Movement Disorders – Cerebellar Ataxia
4. Columbia University, College of Physicians and Surgeons (Guest Lecturer)
  - a. 2015-2021 Adult Neurorehabilitation – Amyotrophic Lateral Sclerosis Lecture/Lab
5. Boston University, Sargent College of Health and Rehabilitation Sciences (Guest Lecturer)
  - a. 2016 Individualizing an Evidence-Based Guide to Intervention
6. Boston University, Sargent College of Health and Rehabilitation Sciences (Teaching Assistant)
  - a. 09/15-12/15 Adult Neurorehabilitation Lab

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7. Columbia University, College of Physicians and Surgeons (Teaching Assistant)
  - a. 01/14-05/15 Adult Neurorehabilitation
  - b. 09/13-12/13 Gross Anatomy Lecture
  - c. 09/12-12/13 Gross Anatomy Lab

## **MENTORING**

### ***Current***

1. *Fatima Awad*, Barnard University, in her senior year of an Undergraduate Degree Bachelor of Science 2023  
Thesis: Exploring fatigue and heart rate variability in people with Spinocerebellar Ataxia – a sub-study from the PRIME-Ataxia RCT
2. Consultative Mentor for PhD, and master's students within the Motor Learning and Control Program at Teachers College, Columbia University
3. Consultative Mentor (Clinical/Research) for Doctor of Physical Therapy Students at Columbia University Medical Center

### ***Past***

4. Mentored Maya Campbell, Barnard University, in her senior year of an Undergraduate Degree Bachelor of Science 2023  
Thesis: Validating the SWAY Medical App as a Measure of Postural Sway in Huntington Disease
5. Mentored Michele Lin, Barnard University, in her junior year of an Undergraduate Degree Bachelor of Science  
Thesis: Instrumented Timed Up and Go Test in estimating Disease Severity in Huntington Disease
6. Mentored James Allen, Teachers College, in his final year of a master's degree in Motor Learning  
Thesis: Self-Driving Cars for People with Parkinson Disease

## **COMMITTEES**

1. APTA Neurology Section Degenerative Disease Special Interest Group Member
2. APTA Neurologic Standard Setting Committee

## **PROFESSIONAL LICENSES**

ABPTS Board Certified Neurological Clinical Specialist (Expires May 2027)  
 Licensed Physical Therapist in the State of California (License# 292155)  
 Licensed Physical Therapist in the State of New York (License# 038135)  
 CGFNS VISA Screen Certification Completion (Certificate# 0006120870)

## **MEMBERSHIP IN SCIENTIFIC/PROFESSIONAL SOCIETIES**

1. New York Academy of Sciences 2023-Present
2. American Physical Therapy Association 2011-Present
3. American Society of Neurorehabilitation 2020-Present
4. Society for Neuroscience 2020-Present
5. Movement Disorders Society, Health Professionals Special Interest Group, 2020-Present
6. European Rehabilitation Network, 2020-Present

## **PROFESSIONAL TRAININGS & CERTIFICATIONS**

Montreal Cognitive Assessment Certified Rater, Expires 2024  
 CITI Training – IRB Human Research Completed, Expires 2025  
 CPR & First Aid Certification – Expires December 2025

Parkinson Foundation ATTP Training	Status Completed	Nov 2020
PFT Training (FVC/FEV1, MIP/MEP, PCEF)	Status: Completed	Mar 2019
Zero G Training	Status: Completed	Jun 2017
Bioness L300 and H200 Training	Status: Completed	Mar 2017
BITS Training	Status: Completed	Oct 2016

## **COMMUNITY ACTIVITIES**

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1. Columbia University Irving Medical Center & Teachers College Community Outreach Health Fair (Organizer) 2021-2023 *Supported by the Collaborative and Multidisciplinary Pilot Research - CAMPR Grant*
2. Columbia University Irving Medical Center Parkinson's Disease Support Group (Presenter) 2019-Present
3. Stanford Health Care ALS Support Group (Rehabilitation Lead Speaker) 2016-2019
4. Stanford Health Care Stroke Support Group Rehabilitation Lead Speaker (Rehabilitation Lead Speaker) 2016-2019
5. Spaulding Rehabilitation Runners in Training (SPRRINT) – a Brain Injury Return to Running Group (Staff Therapist) 2016
6. Spaulding Rehabilitation Adaptive Sports Program – Rowing, Cycling (Volunteer Therapist) 2016
7. Empower Spinal Cord Injury (Empower SCI) Camp (Staff Therapist) 2016
8. Boston University Center for Neurorehabilitation Parkinson's Disease (Support Group Leader) 2015-2016
9. Columbia Student Medical Outreach (CoSMO) – Non-Profit, Pro Bono Health Service Care (Board Vice-President) 2011-2014
10. Alzheimer's Association of NY (Public & Community Health Intern) 2010-2011

*Chelsea F. Thompson* 6/12/2023