



## **CURRICULUM VITAE**

**Noelle G. Moreau, PhD, PT**

**Date: February 5, 2025**

**School: School of Allied Health Professions**

**Department/Program: Physical Therapy and Administration**

**Current Title: Professor and Associate Dean for Research**

**Business Address: 1900 Gravier St., New Orleans, LA 70112**

**Business Telephone: (504) 568-4292**

**Business email Address: nmorea@lsuhsc.edu**

**Initial Appointment at LSUHSC Date: Assistant Professor, Tenure track**

**Current Academic Rank: Professor with Tenure**

**Date of Appointment to Current Rank: July 2021**

### **Education:**

- 1992-1994     Pre-Physical Therapy  
Northwestern State University, Natchitoches, LA
- 1994-1996     Bachelor of Science, Physical Therapy  
Louisiana State University Medical Center, Shreveport, LA
- 2002-2007     Doctor of Philosophy, Kinesiology (Biomechanics)  
Department of Kinesiology  
Louisiana State University A&M, Baton Rouge, LA
- 2007-2008     T32 Postdoctoral Fellowship, Movement Science  
Program in Physical Therapy  
Washington University School of Medicine, St. Louis, MO

### **Certification:**

- 1996-2008     Louisiana Board of Physical Therapy Examiners. License #03257
- 2008-2012     South Carolina Board of Physical Therapy Examiners. License #5851
- 2012-present   Louisiana Board of Physical Therapy Examiners. License #03257

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### **Academic, Professional, and Research Appointments:**

1996-1998	Physical Therapist, Tri-State Physical Therapy Rehab, Acute, and Outpatient Services, Shreveport, LA
1998-2002	Lead Physical Therapist and Research Therapist, Motion Analysis Laboratory, Shriners Hospital for Children, Shreveport, LA
2000-2006	Adjunct Faculty, Louisiana State University Health Science Center, Department of Physical Therapy, Shreveport, LA
2002-2004	Therapy Services Representative, Medtronic, Minneapolis, MN
2005-2006	Adjunct Faculty, Louisiana State University Health Science Center, Department of Physical Therapy, New Orleans, LA
2002-2006	Louisiana State Board of Regents Doctoral Fellow, Louisiana State University, Department of Kinesiology, Baton Rouge, LA
2007-2008	Post-Doctoral Research Scholar, Washington University School of Medicine, Department of Physical Therapy, St. Louis, MO
2008-2012	Assistant Professor, Medical University of South Carolina, Department of Health Professions, Charleston, SC
2012-2014	Associate Dean of Research, School of Allied Health, Louisiana State University, Health Sciences Center, New Orleans, LA
2014-present	Associate Professor with tenure, Louisiana State University Health Science Center, Department of Physical Therapy, New Orleans, LA
2016-present	Associate Professor, School of Medicine, Louisiana State University Health Sciences Center, Department of Cell Biology and Anatomy (Secondary Appointment), New Orleans, LA
2021-present	Professor with tenure, School of Allied Health, Louisiana State University Health Sciences Center, Department of Physical Therapy, New Orleans, LA
2024-	Associate Dean of Research, School of Allied Health, Louisiana State University, Health Sciences Center, New Orleans, LA

### **Awards and Honors:**

2002-2003	Mary McMillan Scholar, American Physical Therapy Association
2002-2006	Louisiana State Board of Regents Fellowship Recipient, Louisiana State University, College of Education
2003-2006	Lilian Oleson Scholar, Louisiana State University, College of Education

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2007	Louisiana State University Dissertation Fellowship Recipient
2007	Louisiana State University Distinguished Dissertation Award Nominee
2008	Neurobiology of Disease in Children (NDC) Young Investigator Award
2008	Gayle G. Arnold Award Nominee for Best Free Paper, American Academy of Cerebral Palsy and Developmental Medicine
2012, 2013	Gayle G. Arnold Award Nominee for Best Free Paper, American Academy of Cerebral Palsy and Developmental Medicine
2017, 2018	Faculty Travel Grant Recipient, LSUHSC School of Allied Health Professions
2017, 2020	Scholarship and Innovation Award, LSUHSC School of Allied Health Professions
2019	Stephen Haley Research Award, APTA, Academy of Pediatric Physical Therapy, American Physical Therapy Association
2022	Chancellor's Excellence Award, LSUHSC-New Orleans
2024	Top 10 Free Paper, American Academy of Cerebral Palsy and Developmental Medicine Annual Meeting

## **TEACHING EXPERIENCE AND RESPONSIBILITIES**

### **Formal Course Responsibilities:**

#### **Louisiana State University Health Sciences Center – Shreveport, LA**

PHTH 6544: Analysis and Synthesis of Human Locomotion (2000-2002; 2 hours/week, Spring) Course instructor to first year Master of Physical Therapy students on the advanced study of human locomotion with an emphasis on the basic principles of gait analysis to include the scientific evaluation and management of normal and abnormal functions of human locomotion.

#### **Louisiana State University Health Sciences Center – New Orleans, LA (Pennington)**

PHTH 6544: Analysis and Synthesis of Human Locomotion (2006; 2 hours/week, Spring) Course instructor to first year Master of Physical Therapy students on the advanced study of human locomotion with an emphasis on the basic principles of gait analysis to include the scientific evaluation and management of normal and abnormal functions of human locomotion.

#### **Medical University of South Carolina, College of Health Professions**

PT750: Research Seminar (2009-2011; 2 hours/week, Fall)

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Research seminar requires Doctor of Physical Therapy students to review, discuss, and critique peer reviewed journal articles related to research topics that have the potential to influence the understanding of various problems and enhance clinical decision-making.

PT716: Biomechanical Analysis of Human Movement (2009-2012; 2-4 hours/week, Spring)

Course director to first year Doctor of Physical Therapy students utilizing a format of lecture, laboratory experience, and case-based learning to prepare the student to identify specific gait abnormalities and the causes for these deviations using observational gait analysis techniques.

PT753: Research Project Elective (2009-2012; 2 hours/week; Spring)

Research Project elective provides Doctor of Physical Therapy students hands-on experience in a research setting, while expanding the student's knowledge and experience in neuromuscular assessments in the cerebral palsy population.

Independent Study, PhD program (2010-2012; 2 hours/week; year round)

PhD students in the Health and Rehabilitation Sciences Doctoral Program worked under my supervision and was inclusive of a thorough literature review of a topic, a research experiment, or the learning of a new research method.

Lab Rotation, PhD program (2010-2012; 1-3 hours/week; varied year round)

PhD students in the Health and Rehabilitation Sciences Doctoral Program worked under my supervision in the Neuromuscular Assessment Laboratory in order to become familiar with research activity in my lab and to help students identify the laboratory in which they will perform their Dissertation research.

PT752: Motor Development (2011; 4.5 hours/week; Fall)

Course coordinator to second year Doctor of Physical Therapy students utilizing a format of lecture, laboratory experience, concentrating on motor development and typical gross motor skills of children birth through young adulthood.

**Louisiana State University Health Sciences Center – New Orleans, LA**

PHTH 7131 Movement Sciences I (2012-2015; 3 hours lecture; Fall)

I served as a course instructor to first year Doctor of Physical Therapy students teaching biomechanics of the ankle joint complex.

PHTH 7101 Evidence-Based Physical Therapy I (2012-2018; 13 hours of lecture; Fall)

I served as a course instructor to first year Doctor of Physical Therapy students teaching introductory content related to research methodology that is relevant to clinical practice and/or research applications.

PHTH 7102 Evidence-Based Physical Therapy II (2013-2018; 12 hours of lecture;

Spring). I served as a course instructor to first year Doctor of Physical Therapy students teaching research design and applied statistics in order to review, analyze, and critically evaluate available evidence.

PHTH 7135 Human Development Across the Lifespan (2016-2018; 3 hours/week; Fall)

Course coordinator for the Human Development course for first year Doctor of Physical Therapy students which includes typical motor development in childhood and changes

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associated with aging with an emphasis on the neuromuscular and musculoskeletal systems (lecture/lab).

PHTH 7132 Movement Sciences II (2013-2024; 26 hours lecture and 12 hours lab; Spring). Course Director to first year Doctor of Physical Therapy students utilizing a format of lecture, laboratory experience, and case-based learning to teach analysis of movement, with an emphasis on gait, including the identification and causes of gait deviations that result in functional impairment.

PHTH 7240 Motor Behavior (2012-2018; 3 hours lecture and 29 hours lab; Fall) Course instructor to first year Doctor of Physical Therapy students teaching gait dysfunction in neurological conditions and outcome measures, including lectures, assisting in lab, and skills check-offs.

PHTH 7270/7271 Diagnosis & Management in Neuromuscular Disorders (2013-2023; 6 hours lecture and 4 hours lab on average each year). I served as a course instructor to first year Doctor of Physical Therapy students teaching gait related content specific to individuals with neuromuscular disorders with an emphasis on analysis and understanding of likely causes of gait deviations.

PHTH 7204/7205/7206 EBPT IV, V, VI Capstone Projects (2013-2020; 2023-2024; 4 hours/week over 3 semesters) I served as a Capstone advisor to Doctor of Physical Therapy students in their second and third years of the program, culminating in a written capstone project that is defended.

#### **Formal Mentoring and Advisor:**

2018-2020 Dr. Luther Gill K12 Scholar (Mentoring team) LaCATS LSUHSC-NO

#### **Thesis, Clinical Doctoral Projects, and/or Dissertation Committees:**

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|------|--|
| 2001 | Pennywell, S., Judd, D., Dugas, B., Fabre, J. The effect of rectus femoris transfer and hamstring lengthening on gait in children with cerebral palsy. Master of Physical Therapy Program, Department of Physical Therapy, LSUHSC-S. (Research advisor)  |
| 2001 | Fabre, J., Pennywell, S., Judd, D., Dugas, B. The effect of rectus femoris transfer surgery on gait in children with cerebral palsy. Master of Physical Therapy Program, Department of Physical Therapy, LSUHSC-S. (Research advisor)  |
| 2002 | Simpson J., Wilkerson J. Goal Specific Outcomes of Rectus Femoris Transfers in Children with Cerebral Palsy Based on Stance-Phase Characteristics. Master of Physical Therapy Program, Department of Physical Therapy, LSUHSC-S. (Research advisor)  |
| 2003 | Cavell A, Semones K. Long Term Outcomes of Rectus Femoris Transfers in Children with Cerebral Palsy. Master of Physical Therapy Program, Department of Physical Therapy, LSUHSC-S. (Research advisor)  |
| 2009 | Vanderwerker, C. Muscle Plasticity of the Quadriceps in Response to Velocity-Enhanced Resistance Training in a Teenager with Cerebral Palsy Improves Muscle Performance and Quality of Life: a Case Report. Doctor of Physical Therapy Program, Department of Health Professions, Medical University of South Carolina. (DPT Research advisor) |

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- 2010-2011 Dew, AP. Getting the most out of a 2D ultrasound measure of muscle thickness in children with cerebral palsy. Doctor of Physical Therapy Program, Department of Health Professions, Medical University of South Carolina. (DPT Research advisor)
- 2011-2012 Smart-Balleh, M. Differences in Muscle Architecture, Passive and Dynamic Range of Motion in High and Low Risk Preterm Infants. Doctor of Physical Therapy Program, Department of Health Professions, Medical University of South Carolina. (DPT Research advisor)
- 2011-2012 Judd, C. Reliability of Lower Extremity Kinematics Obtained Using Two-Dimensional Video Analysis in Young Infants. Doctor of Physical Therapy Program, Department of Health Professions, Medical University of South Carolina. (DPT Research advisor)
- 2013-2014 Shrader, A., Lahasky, K., Soileau, M. Effectiveness of Interventions to Improve Walking Speed in Cerebral Palsy: a Systematic Literature Review. Doctor of Physical Therapy Program, Class of 2014, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2014-2015 Stone, L., Vicari, M., Sydboten, A. Biomechanical Factors that Contribute to Patellofemoral Pain in Female Runners. Doctor of Physical Therapy Program, Class of 2015, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2015-2016 Varnado, K., Scroggin, M., Irvin, J. The Effect of External Versus Internal Focus of Attention on Running Mechanics in Novice Runners. Doctor of Physical Therapy Program, Class of 2016, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2015-2016 Baudouin, C., Pederson, S., Sparks, T. The Effectiveness of LSVT BIG on Physical Function in Patients with Parkinson's Disease. Doctor of Physical Therapy Program, Class of 2016, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2016-2017 Williams III F., Bui A., Wiegmann J. Feasibility and Validity of a Simple Video Analysis Method for Calculating Lower Extremity Power. Doctor of Physical Therapy Program, Class of 2017, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2016-2017 Landry A., Maher L., Stanich III, J. Effects of External Versus Internal Focus of Attention on Running Mechanics in Novice Runners. Doctor of Physical Therapy Program, Class of 2017, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2017-2018 Connick B., Rabalais T., Robertson M. Age-Related Changes in Muscle Structure and Function Throughout the Lifespan in Individuals with Cerebral Palsy. Doctor of Physical Therapy Program, Class of 2018, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2017-2018 Bunch L., Samuel L., Thomassie M. The Effect of Spinal Manipulation on Chronic Mechanical Neck Pain: a Systematic Review and Meta-analysis. Doctor of Physical Therapy Program, Class of 2018, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2018-2019 Amedee T., Ferrelli S., Gaitan J., Guillot K., Wood J. Age Related Changes in Muscle Function and Walking in Cerebral Palsy: A Follow-up Study. Doctor of Physical Therapy Program, Class of 2019, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
- 2019-2020 Cheramie C., Gray A., Hargroder A., Pecquet K., Stevenson M. Trajectories of Muscle Strength and Power with Age in Individuals with Cerebral Palsy and Relationship to Functional Mobility. Doctor of Physical

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	Therapy Program, Class of 2020, Department of Physical Therapy, LSUHSC-NO. (Capstone advisor)
2022	Mattie Pontiff. Examination of a Power Leg Press (PLP) Test in Cerebral Palsy: Reliability, Sensitivity to Change and Functional Significance. Department of Cell Biology and Anatomy, LSUHSC-NO (Dissertation project). Role: Primary Advisor
2021-2023	Fontenot C., Dublin P., Robin H., Wilson L. Muscle Performance, Activity, and Participation: A Case Series Exploring the Effects of Resistance Training Combined with Task-Specific Training in Children with Cerebral Palsy. Doctor of Physical Therapy Program, Class of 2023, Department of Physical Therapy, LSUHSC-NO. (Capstone Advisor)
2021-2023	Abston L. Intrasarcomere and Extrasarcomere force Enhancement Strategies for Performance Increases for those With Cerebral Palsy, a Review. Doctor of Physical Therapy Program, Class of 2023, Department of Physical Therapy, LSUHSC-NO. (Capstone Advisor)

### **Post-Doctoral or Post-Residency Fellows Trained:**

2019-2022	Dr. Abinandan Batra	Postdoctoral Fellow in Physical Therapy LSUHSC
2019-2022	Dr. Leila Nuri	Postdoctoral Fellow in Physical Therapy LSUHSC
2023-pres	Dr. Joel Licea	Postdoctoral Fellow in Physical Therapy LSUHSC

## **RESEARCH AND SCHOLARSHIP**

### **Grants and Contracts:**

#### **Funded**

Clinical Research Grant                      Moreau (PI)                      6/01/05-05/31/06  
 Section on Pediatrics, American Physical Therapy Association  
*Quantification of Muscle Fatigue in Cerebral Palsy*  
 Amount: \$1,000  
 Role: PI

T32-HD007434-13                      Miller (PI)                      01/01/07 – 08/01/08  
 NIH/NCMRR  
 Movement Science Program, Dept. of Physical Therapy, Washington University in St. Louis  
 Role: Postdoctoral Research Fellow (100% effort)

Clinical Research Grant                      Moreau (PI)                      6/01/07-05/31/09  
 Section on Pediatrics, American Physical Therapy Association  
*Physical Activity and Muscle Plasticity in Cerebral Palsy*  
 Amount: \$10,000  
 Role: PI

New Investigator Award                      Moreau (PI)                      1/01/09-12/31/10  
 Thrasher Research Fund  
*In Vivo Assessment of Quadriceps Muscle Plasticity in Children with Cerebral Palsy*  
 Amount: \$27,000

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Role: PI (50% effort)

Pedal-with-Pete Foundation                      Moreau (PI)                      1/01/09-06/31/11  
*In Vivo Assessment of Quadriceps Muscle Plasticity in Children with Cerebral Palsy*  
 Amount: \$38,000  
 Role: PI (25% effort)

Pilot Project    Coker (PI)    7/01/10 – 06/30/12  
 MUSC SCOR (Specialized Center of Research) on Sex and Gender Factors Affecting  
 Women's Health  
*Early Gender Related Motor Skills Differences in Female and Male Preterm Infants*  
 Amount: \$20,000  
 Role: Co-I (10% effort)

Beginning Grant-in-Aid                              Gregory (PI)    7/01/11 – 6/30/12  
 American Heart Association  
*Lower Extremity Power and Locomotor Function after Stroke*  
 Amount: \$153,975  
 Role: Co-I (5% effort)

CHASA grant    Gordon (PI)    7/1/2013 – 6/30/2014  
 Children's Hemiplegia & Stroke Association  
*Intensive Home-based Bimanual and Lower Limb Training in Young Children with  
 Hemiplegia*  
 Amount: \$10,000  
 Role: Co-I

Dean's Intramural Grant Program              Moreau (PI)    5/01/13 – 05/01/15  
*Muscle Power and Walking in Cerebral Palsy: Short-burst Interval Training – a Pilot  
 Study*  
 Amount: \$10,000  
 Role: PI

R21 HD077186    Moreau (PI)/ Bjornson (PI)    08/01/14 – 07/31/17  
 NIH / NICHD  
 Amount: \$425,129  
 Role: PI (15% effort)

Research Grant    Moreau (PI)    12/31/20 – 06/30/24  
 Academy of Pediatric Physical Therapy  
*MicroRNAs as Key Regulators of Gene Expression in Skeletal Muscle of Children with  
 CP*  
 Amount: \$25,000  
 Role: PI

Planning Grant    Duff, Moreau, Friel (PI)    01/01/20 – 12/31/23  
 Academy of Pediatric Physical Therapy  
*An Individualized Multimodal Intervention for Bone and Muscle Health in Pre-  
 Adolescents with Cerebral Palsy: Promoting Healthy Transitions into Adulthood*  
 Amount: \$24,763  
 Role: PI

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R01 HD091089-01A1                      Moreau (PI)                      07/04/18 – 06/30/25(NCE)  
 NIH / NICHD  
*Power Training Combined with Interval Treadmill Training to Improve Walking Activity in Cerebral Palsy.*  
 Amount: \$2,530,914.  
 Role: PI (50% effort)

R01 HD098270-01                      Moreau/Bjornson (PI)                      06/15/19 – 05/31/25  
 NIH / NICHD  
*Short-Burst Interval Treadmill Training to Improve Community Walking Activity and Mobility in Cerebral Palsy*  
 Amount: \$2,791,938.  
 Role: PI (35% effort)

WIRP Grant                      Moreau/Simon Peter (PI)                      10/04/24 – 10/03/26  
 LSU Health Sciences Center  
*Molecular regulation of skeletal muscle function in children with cerebral palsy: implication for therapeutic targets*  
 Amount: \$99,892  
 Role: PI

#### **Recent non-funded applications**

Diversity Supplement                      Moreau/Bjornson (PI)                      06/01/24 – 05/31/25  
 R01 HD098270-01  
 NIH / NICHD  
 Amount: \$108,879  
 Role: Mentor

#### **Major Area of Research Interest:**

My research focuses on the investigation of the neuromuscular mechanisms underlying abnormal muscle function and movement impairments in children with cerebral palsy, using techniques such as ultrasound imaging, dynamometry, and electromyography. My overarching goal is the development of effective rehabilitation strategies to improve activity, participation, and quality of life for individuals with cerebral palsy.

#### **Journal Publications:**

##### **Refereed**

##### **Published:**

**Moreau, N.**, Tinsley, S., & Li, L. (2005). Progression of knee joint kinematics in children with cerebral palsy with and without rectus femoris transfers: a long-term follow up. *Gait.Posture.*, 22, 132-137. [Impact Factor: 2.8]

**Moreau, N.**, Li, L., & Damiano, D. L. (2008). A feasible and reliable muscle fatigue assessment protocol for individuals with cerebral palsy. *Pediatr.Phys.Ther.*, 20, 59-65. [Impact Factor: 1.2 – 3.0]

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- \*Moreau, N. G.**, Li, L., Geaghan, J. P., & Damiano, D. L. (2008). Fatigue resistance during a voluntary performance task is associated with lower levels of mobility in cerebral palsy. *Arch.Phys.Med.Rehabil.*, 89, 2011-2016. PMCID: PMC2668210. [Impact Factor: 3.1 to 4.3]
- \*Moreau, N. G.**, Teefey, S. A., & Damiano, D. L. (2009). In vivo muscle architecture and size of the rectus femoris and vastus lateralis in children and adolescents with cerebral palsy. *Dev.Med.Child Neurol.*, 51, 800-806. PMCID: PMC2771733. [Impact Factor: 3.8 to 5.4]
- \*Moreau, N. G.**, Li, L., Geaghan, J. P., & Damiano, D. L. (2009). Contributors to fatigue resistance of the hamstrings and quadriceps in cerebral palsy. *Clin.Biomech.(Bristol, Avon.)*, 24, 355-360. PMCID: PMC2727679. [Impact Factor: 2.1]
- \*Moreau, N. G.**, Simpson, K. N., Teefey, S. A., & Damiano, D. L. (2010). Muscle architecture predicts maximum strength and is related to activity levels in cerebral palsy. *Phys.Ther.*, 90, 1619-1630. PMCID: PMC2967708. [Impact Factor: 2.6 to 3.8]
- \*Moreau, N. G.**, Falvo, M. J., & Damiano, D. L. (2012). Rapid force generation is impaired in cerebral palsy and is related to decreased muscle size and functional mobility. *Gait Posture*, 35, 154-158. PMCID: PMC3260405. [Impact Factor: 2.8]
- Dew, A. P. & **\*Moreau, N. G.** (2012). A comparison of 2 techniques for measuring rectus femoris muscle thickness in cerebral palsy. *Pediatr.Phys.Ther.*, 24, 218-222. [Impact Factor: 1.2 – 3.0]
- Martin, A., Johnson, L., Coker-Bolt, P., **Moreau, N.**, Perkel, J., Jenkins, D. (2013). A case exploration of early motor delays and early intervention for an extremely premature infant. *Journal of Occupational Therapy, Schools & Early Intervention*, 6, 14-22. [Impact Factor: 0.7]
- \*Moreau, N. G.**, Holthaus, K., & Marlow, N. (2013). Differential adaptations of muscle architecture to high-velocity versus traditional strength training in cerebral palsy. *Neurorehabil.Neural Repair*, 27, 325-334. [Impact Factor: 5.4]
- Coker-Bolt, P., Woodbury, M., Perkel, J., **Moreau, N. G.**, Hope, K., Brown, T., Ramakrishnan, V., Mulvihill, D., Jenkins, D. (2014). Identifying premature infants at high and low risk for motor delays using motor performance testing and MRS. *J Pediatr Rehabil Med*; 7(3), 219-32. [Impact Factor: 1.9]
- Bentzley, J., Coker-Bolt, P., **Moreau, N. G.**, Hope, K., Ramakrishnan, V., Brown, T., Mulvihill, D., Jenkins, D. (2015). Kinematic Measurement of 12-week Head Control Correlates with 12-month Neurodevelopment in Preterm Infants. *Early Human Development*;91, 159-164. [Impact Factor: 2.7]
- \*Moreau, N.G.**, Gannotti, M. (2015). Addressing Muscle Performance Impairments in Cerebral Palsy: Implications for Upper Extremity Resistance Training. *J Hand Therapy, Pediatric Special Issue*, 28, 91-9. [Invited paper]. [Impact Factor: 2.1]

**\*Moreau, N. G.**, Knight, H., Olson, M. W. (2016). A potential mechanism by which torque output is preserved in cerebral palsy during fatiguing contractions of the knee extensors. *Muscle & Nerve*, 53, 297-303. [Impact Factor: 3.9]

**\*Moreau, N.G.**, Bodkin, A., Bjornson, K., Hobbs, A., Soileau, M., Lahasky, K. (2016). Effectiveness of Rehabilitative Interventions to Improve Gait Speed in Children with Cerebral Palsy: a Systematic Review and Meta-analysis. *Physical Therapy*, 96, 1938-1954. PMID: PMC5131187. [Impact Factor: 3.8]

Schiaible, B., Colquitt, G., Li, L., Caciula, M., & **Moreau, N. G.** (2017). Urban versus rural differences in insurance coverage and impact on employment among families caring for a child with cerebral palsy. *Cogent Medicine*, 4(1), 1-16.

Ferre C, Brandao M, Surana B, Dew A, **Moreau N**, Gordon A. (2017). Caregiver-directed home-based intensive bimanual training in young children with unilateral spastic cerebral palsy: a randomized trial. *Developmental Medicine and Child Neurology*. 59(5), 497-504. [Impact Factor: 5.4]

Schaible B, Colquitt G, Caciula MC, Carnes A, Li L, **Moreau N.** (2018). Comparing impact on the family and insurance coverage in children with cerebral palsy and children with another special healthcare need. *Child Care Health Dev*, 44(3):370-377. [Impact Factor: 2.9]

Bjornson KF, **Moreau N**, Bodkin AW. (2019). Short-burst interval treadmill training walking capacity and performance in cerebral palsy: a pilot study. *Dev Neurorehabil*, 22(2):126-133. PMID: PMC7894036. [Impact Factor: 2.3]

Surana B, Dew A, Ferre C, Brandao M, Gordon A, **\*Moreau NG.** (2019). Effectiveness of Lower Extremity Functional Training (LIFT) in Young Children with Unilateral Spastic Cerebral Palsy: A Randomized Controlled Trial. *Neurorehabil. Neural Repair*, 33(10): 862-872. [Impact Factor: 4.9]

Colquitt, G., Li, L., Kendall, K., Kiely, K., Vogel, R. L., Caciula, M. C, **Moreau, N. G.** (2020). Community-based upper extremity power training for youth with cerebral palsy: A pilot study. *Phys Occup Ther Pediatr.*, 40(1): 31-46. [Impact Factor: 2.4]

Pontiff ME, Li L, **\*Moreau NG.** (2021). Reliability and Validity of Three Clinical Methods to Assess Lower Extremity Muscle Power. *International Journal of Kinesiology & Sports Science.*, 9(1): 1-8. [Impact Factor: 0.8]

Pontiff, M., Li, L., & **\*Moreau. N. G.** (2023). Reliability, Validity and Minimal Detectable Change of a Power Leg Press Test in Individuals with Cerebral Palsy. *Phys Occup Ther Pediatr.* 2023; 43(5): 582–595. PMID: PMC10390647. [Impact Factor: 1.5]

Duff S.V., Kimbel J.D., Grant-Beuttler M., Sukal-Moulton T., **Moreau N.G.**, Friel K.M. (2023). Lifelong Fitness in Ambulatory Children and Adolescents with Cerebral Palsy II: Influencing the Trajectory. *Behav Sci (Basel)*. Jun 15;13(6):504. PMID: PMC10295269. [Impact Factor: 2.5]

**\*Moreau N.G.**, Friel K.M., Fuchs R.K., Dayanidhi S., Sukal-Moulton T., Grant-Beuttler M., Peterson M.D., Stevenson R.D., Duff SV. (2023). Lifelong Fitness in Ambulatory

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Children and Adolescents with Cerebral Palsy I: Key Ingredients for Bone and Muscle Health. *Behav Sci (Basel)*. Jun 28;13(7):539. PMID: PMC10376586. [Impact Factor: 2.5]

Pontiff, M.E. & **\*Moreau, N.G.** (2024). Age-Related Differences in Muscle Size and Strength between Individuals with Cerebral Palsy and Individuals with Typical Development. *Phys Occup Ther Pediatr*. 44(4): 572-585. [Impact Factor: 1.5]

Pontiff M.E., Batra A., Li L., **\*Moreau N.G.**(2024). Muscle power is associated with higher levels of walking capacity and self-reported gait performance and physical activity in individuals with cerebral palsy. *Front Physiol*. Jan. 6;15:1488905. doi: 10.3389/fphys.2024.1488905. PMID: PMC11743613. [Impact Factor: 3.2]

#### **Submitted:**

Pontiff, M.E. & **Moreau, N.G.** Age-Related Changes in Muscle Strength and Power in Individuals with Cerebral Palsy and the relationship to functional mobility (submitted to *Gait & Posture*)

#### **Non-refereed**

#### **Published:**

Damiano, D. L. & **Moreau, N.** (2008). Muscle thickness reflects activity in CP but how well does it represent strength? *Dev.Med.Child Neurol.*, 50, 88.

**Moreau, N.G.** & Lyman, J. (2020). Commentary on “Fatigue in Children and Young Adults with Physical Disabilities: Relation with Energy Demands of Walking and Physical Fitness”. *Pediatr.Phys.Ther.*, 32(3), 210.

#### **H-Index/indices:**

Web of Science *H-Index* = 12; Average citations per item = 30.7 (01/10/2025)  
Research Gate *H-Index* = 15; Total citations = 1,200 (excluding self-citations, 1/10/2025)

#### **Books:**

#### **Book Chapters:**

**Moreau, N. G.** (2013). Muscle structural adaptation in cerebral palsy and relationship to function. In Ramey, S., Coker-Bolt, P., & DeLuca, S. (Eds.), *Handbook of Pediatric Constraint-Induced Movement Therapy (CIMT): A Guide for Occupational Therapy and Health Care Clinicians, Researchers, and Educators*. Bethesda, MD: American Occupational Therapy Association Press.

**Moreau, N.G.** (2020) Muscle Performance in Children and Youth with Cerebral Palsy: Implications for Resistance Training. In Miller F, Bachrach S, Lennon N, O-Neil M (Eds.), *Cerebral Palsy 2<sup>nd</sup> Edition*. Cham: Springer International Publishing.  
[https://doi.org/10.1007/978-3-319-50592-3\\_164-1](https://doi.org/10.1007/978-3-319-50592-3_164-1).

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## **Scientific Presentations/Published Abstracts/Oral Sessions and Posters:**

### **Scientific Presentations**

#### **National:**

Damiano, D. L., **Moreau, N. G.**, Stanley, C. (2008, April). Muscling our way into improving gait and motor activity in cerebral palsy and other motor disabilities. Pre-conference symposium presented at the Gait and Clinical Movement Analysis Society Annual Meeting, Richmond, VA.

Shortland, A., **Moreau, N. G.**, Gough, M. (2009, April). Ultrasound Imaging of Muscle Deformity in Cerebral Palsy. Pre-conference symposium presented at the Gait and Clinical Movement Analysis Society Annual Meeting, Denver, CO.

**Moreau, N. G.** (2011, October). Presentation at The Third National Pediatric Research Summit (RSIII). Dosing of Interventions for Children with an Injured Brain. Section on Pediatrics, American Physical Therapy Association. October 28-30, 2011, Alexandria, VA.

Kolobe, T., **Moreau, N. G.**, Fuchs, R., Gannotti, M., Gordon, A., Christy, J., Prosser, L., Heathcock, J. (2013, January). Linking Structure to Function: Muscle, Bone, and Brain. Combined Sections Meeting, Section on Pediatrics Pre-Conference Course, San Diego, CA.

**Moreau, N. G.**, Fuchs, R., Gannotti, M. (2013, October). Linking Structure and Function: Dosing Parameters and Protocols for Interventions to Improve Muscle and Bone Outcomes in Cerebral Palsy. Instructional Course presented at the American Academy for Cerebral Palsy and Developmental Medicine, Milwaukee, WI.

**Moreau, N. G.**, Fuchs, R., Gannotti, M. (2014, February). Linking Structure and Function for Muscle and Bone Across the Lifespan in People with Cerebral Palsy (Part 1). Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, Las Vegas, NV.

**Moreau, N. G.**, Fuchs, R., Gannotti, M. (2014, February). Linking Structure and Function: Dosing Parameters and Protocols for Current and Novel Therapies to Improve Muscle and Bone Outcomes in Cerebral Palsy (Part 2). Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, Las Vegas, NV.

**Moreau, N. G.**, Gannotti, M., McAleavey (2014, October). What Adults with Cerebral Palsy want Physical Therapists to Tell Them: What Exercises Should I Do? Educational Course presented at the Section on Pediatrics Annual Conference, St. Louis, MO.

**Moreau, N. G.** (2015, October). Presentation at The Fourth National Pediatric Research Summit (RSIV). Innovations in Technology for Children with Brain Insults: Maximizing Outcomes. Section on Pediatrics, American Physical Therapy Association. October 15-17, 2015, Alexandria, VA.

**Moreau, N. G.**, Gannotti, M., McAleavey (2015, October). Maximizing Gait and Function in People with Cerebral Palsy Through Targeted Exercise Prescription: An Interactive Case Application. Instructional Course presented at the American Academy for Cerebral Palsy and Developmental Medicine, Austin, TX.

**Moreau, N. G.**, Gannotti, M., McAleavey (2016, February). We Want to Pump You Up: Targeted Exercise Prescription for Adults with Cerebral Palsy. Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, Anaheim, CA.

Mattern-Baxter, K., Looper, J., **Moreau, N.**, Bjornson, K. (2016, February). Treadmill Protocols Across Ages and Stages: A Fresh Look at Dosage. Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, Anaheim, CA.

Fowler, E., **Moreau, N. G.**, Behrman, A. L., Tucker, C. A., McManus, B., Gannotti, M. (2016, February). Section on Pediatrics Research Forum 2016: Valid Measures for Body Structures & Function and Common Data Elements for Childhood Diagnoses. Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, Anaheim, CA.

**Moreau, N. G.**, Kolobe, H. A. (2017, February). Measuring Outcomes for Children with Cerebral Palsy across the ICF. Educational Course presented at the Combined Sections Meeting, Section on Pediatrics, of the APTA, San Antonio, TX.

Mattern-Baxter, K., Looper, J., **Moreau, N.**, Bjornson, K. (2017, October). Treadmill Protocols Across Ages and Stages: A Fresh Look at Dosage. Instructional Course presented at the American Academy for Cerebral Palsy and Developmental Medicine, Montreal, Canada.

**Moreau, N. G.**, Harris, N., Roy, M., Hedgecock, J. B., Prowse, M. (2019, September). Using Implementation Science to Accelerate the Adoption of Evidence-Based Practices Related to Resistance Training in Cerebral Palsy. Focused Symposia presented at the American Academy for Cerebral Palsy and Developmental Medicine, Anaheim, CA.

Harris, N., **Moreau, N. G.**, Hedgecock, J. B., Roy, M., Prowse, M. (2020, September). Using Implementation Science to Accelerate the Adoption of Evidence-Based Practices for Resistance Training in Cerebral Palsy. Instructional course presented at the American Academy for Cerebral Palsy and Developmental Medicine (Virtual).

**Moreau, N. G.**, Pontiff, M., Lemon, C. (2020, September). When it Comes to Dosing, Just OK is Not OK – Why We Should Be Doing 1-Repetition Maximum Testing in Children with Cerebral Palsy. Instructional course presented at the American Academy for Cerebral Palsy and Developmental Medicine (Virtual).

Pontiff, M. & **Moreau, N. G.** (2021, February). Just OK Is Not OK: Importance of 1-Repetition Maximum Testing for Dosing in Cerebral Palsy. Educational Live Course presented at the Combined Sections Meeting, Academy of Pediatric Physical Therapy of the APTA. (Virtual).

**Moreau, N. G.**, Bjornson, K., Hurvitz, P. (2021, September). An Innovative Approach for Measuring Community Walking Using Combined Accelerometry and GPS. Mini-Symposia presented at the American Academy for Cerebral Palsy and Developmental Medicine 75th Annual Conference (Virtual).

Gannotti, M., **Moreau, N. G.**, Heathcock, J., Bailes, A. (2022, February). Ten Years after Research Summit III: State of the Science on Dosing Research for Children with CP. Presented at the Research Forum of the Academy of Pediatric Physical Therapy, Combined Sections Meeting of the APTA, San Antonio, TX.

**Moreau, N. G.** (2022, September). Multi-site Clinical Trials: Treatment Fidelity and Beyond. Presented at the Rehabilitation Clinical Trials: Innovations, Designs and Tribulations MR3 Conference (Virtual).

Modlesky, C., Bjornson, K., Byrne, R., Ferre, C., Kruer, M., Maitre, N., **Moreau, N. G.** (2022, September). Establishing a Research Program Focused on Cerebral Palsy or Other Child-Onset Developmental Disabilities: Transitioning from an Early-Stage to an Independent Investigator. Presented as a Pre-Conference Course at the American Academy for Cerebral Palsy and Developmental Medicine 76th Annual Conference, Las Vegas, NV.

**Moreau, N. G.**, Bjornson, K. F. (2023, February). Moving Beyond the Clinic: Measuring Change in Walking Performance in Daily Life. Educational Course presented at the Combined Sections Meeting, Academy of Pediatric Physical Therapy of the APTA, San Diego, CA.

### **Oral Sessions**

#### **National:**

**Moreau, N.**, Simpson, J., Wilkerson, J., & Gates, P. (2002, October). Goal specific outcomes of rectus femoris transfers in children with cerebral palsy based on stance-phase characteristics. In 56th Annual Meeting of the American Academy for Cerebral Palsy and Developmental Medicine, New Orleans, LA.

**Moreau, N.**, Simpson, J., Wilkerson, J., & Gates, P. (2003, February). Goal specific outcomes of rectus femoris transfers in children with cerebral palsy based on stance-phase characteristics. In Section on Pediatrics, Combined Sections Meeting, APTA, Tampa, FL.

**Moreau, N.**, Tinsley, S., Cavell, A., & Semones, K. (2004, February). Long term outcomes of rectus femoris transfers in children with cerebral palsy. In Section on Pediatrics, Combined Sections Meeting, APTA, Nashville, TN.

**Moreau, N.**, Tinsley, S., & Li, L. (2004, April). Progression of knee joint kinematics in children with cerebral palsy with and without rectus femoris transfers: A long-term follow up. In 9th Annual Meeting of the Gait and Clinical Movement Analysis Society, Lexington, KY.

**Moreau, N. G.**, Li, L., & Damiano, D. L. (2006, September). Development of a feasible and reliable muscle fatigue protocol for individuals with cerebral palsy. In American Academy for Cerebral Palsy and Developmental Medicine, Boston, MA.

**Moreau, N. G.**, Li, L., & Damiano, D. L. (2006, September). Is fatigue a problem at the muscle level in cerebral palsy? In American Academy for Cerebral Palsy and Developmental Medicine, Boston, MA.

**Moreau, N. G.**, Li, L., & Damiano, D. L. (2007, October). Absolute torque level contributes to fatigue resistance of the hamstrings and quadriceps in cerebral palsy. In American Academy for Cerebral Palsy and Developmental Medicine, Vancouver, BC.

**Moreau, N. G.**, Li, L., & Damiano, D. L. (2008, February). Contributors to fatigue resistance of the hamstrings and quadriceps in cerebral palsy. In Section on Pediatrics, Combined Sections Meeting, APTA, Nashville, TN.

**Moreau, N. G.**, Stanley, C., Teefey, S., & Damiano, D. L. (2008, April). Rectus femoris fascicle length is related to dynamic measures of knee excursion during gait in cerebral palsy. In Gait and Clinical Movement Analysis Society Annual Meeting, Richmond, VA.

**Moreau, N. G.**, Stanley, C., Teefey, S., & Damiano, D. L. (2008, September). In vivo muscle architecture of the rectus femoris and vastus lateralis in cerebral palsy. In American Academy for Cerebral Palsy and Developmental Medicine, Atlanta, GA. Gayle G. Arnold Award Nominee for Best Free Paper

**Moreau, N. G.**, Teefey, S., & Damiano, D. L. (2008, November). Muscle architectural plasticity in children with cerebral palsy: A pilot study. In Neurobiology of Disease in Children New Investigator Symposium, Child Neurology Society 37th Annual Meeting, Santa Clara, CA.

**Moreau, N. G.**, Stanley, C., Miros, J., Scholtes, S., Teefey, S., Brunstrom-Hernandez, J., & Damiano, D. L. (2009, February). Muscle architecture of the quadriceps is related to strength and function in children with cerebral palsy. In Section on Pediatrics, Combined Sections Meeting, APTA, Las Vegas, NV.

**Moreau, N. G.**, Stanley, C., Miros, J., Scholtes, S., Teefey, S., Brunstrom-Hernandez, J., & Damiano, D. L. (2009, September). Muscle plasticity in children with cerebral palsy in response to intensive activity: A pilot study. In American Academy for Cerebral Palsy and Developmental Medicine, Scottsdale, AZ.

**Moreau, N. G.**, Teefey, S., & Damiano, D. L. (2010, February). Decreased ability to produce torque per unit of cross-sectional area of the rectus femoris is related to standing and walking performance in cerebral palsy. In Section on Pediatrics, Combined Sections Meeting, APTA, San Diego, CA.

**Moreau, N. G.**, Knight, H., & Olson, M. W. (2011, February). To decline or not to decline: A potential mechanism by which torque output is preserved in cerebral palsy. In Section on Pediatrics, Combined Sections Meeting, APTA, New Orleans, LA.

**Moreau, N. G.**, Holthaus, K., & Marlow, N. (2011, October). Differential adaptations of muscle architecture in response to high velocity versus traditional strength training in

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cerebral palsy. In American Academy for Cerebral Palsy and Developmental Medicine, Las Vegas, NV. Gayle G. Arnold Award Nominee for Best Free Paper

**Moreau, N. G.**, Holthaus, K., & Marlow, N. (2012, February). Muscle architectural plasticity of the quadriceps in response to high velocity vs. traditional strength training in cerebral palsy: A randomized clinical trial. In Section on Pediatrics, Combined Sections Meeting, APTA, Chicago, IL.

**Moreau, N. G.**, Holthaus, K., & Marlow, N. (2012, February). Muscle architectural plasticity of the quadriceps in response to high velocity vs. traditional strength training in cerebral palsy: Effects on function, self-concept, activity and participation. In Section on Pediatrics, Combined Sections Meeting, APTA, Chicago, IL.

**Moreau, N. G.**, Coker-Bolt, P., Perkel, J., Holthaus, K., & Jenkins, D. (2012, October). Magnetic resonance spectroscopy (MRS) findings correlate with kinematic measures of motor test performance in high risk preterm infants. In American Academy for Cerebral Palsy and Developmental Medicine, Toronto, Canada. Gayle G. Arnold Award Nominee for Best Free Paper

**Moreau, N. G.**, Balleh, M., Holthaus, K., Coker-Bolt, P., Perkel, J., & Jenkins, D. (2012, October). Muscle architectural differences between preterm infants at high and low risk for developmental disabilities. In American Academy for Cerebral Palsy and Developmental Medicine, Toronto, Canada.

Surana, B., **Moreau, N.**, Dew, A., Ferre, C., Brandao, M., & Gordon, A. (2015, October). Effectiveness of lower extremity intensive functional training (LIFT) in young children with hemiplegia delivered in the home setting: A randomized control trial. American Academy for Cerebral Palsy and Developmental Medicine, Austin, TX.

Colquitt, G., **Moreau, N.**, Li, L., Kendall, K., Vogel, R., & Dipita, T. (2015, October). The effect of an upper extremity power training intervention on pain and power among young people with cerebral palsy. American Academy for Cerebral Palsy and Developmental Medicine, Austin, TX.

**Moreau, N.**, Bjornson, K., Bodkin, A., & Poliachik, S. (2017, October). Effect of short-burst interval treadmill training on muscle architecture and gait speed in cerebral palsy. American Academy for Cerebral Palsy and Developmental Medicine, Montreal, Canada.

Bjornson, K., Bodkin, A., & **Moreau, N.** (2018, February). Effect of short-burst interval treadmill training on muscle architecture, power, and walking outcomes in cerebral palsy. Combined Sections Meeting, APTA, New Orleans, LA.

Varnado, K., Irvin, J., Scroggin, M., Landry, A., Maher, L., Stanich III, J., & **Moreau, N.** (2018, February). Effects of focus of attention instructions on running mechanics and foot strike pattern: Immediate and retention effects. Combined Sections Meeting, APTA, New Orleans, LA.

Pontiff, M., Rabalais, T., Connick, B., Robertson, M., & **Moreau, N.** (2018, October). Age related changes in muscle size and strength across the lifespan in individuals with cerebral palsy. American Academy for Cerebral Palsy and Developmental Medicine, Cincinnati, OH.

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**Moreau, N. G.** (2020, October). Identifying Critical Periods and Gaps: Age related changes in muscle size and strength across the lifespan in individuals with cerebral palsy. Research Summit V sponsored by the Academy for Pediatric Physical Therapy, Alexandria, VA.

Amedee, T., Ferrelli, S., Gaitan, J., Guillot, G., Wood, J., **Moreau, N. G.** (2020, February). Age-related changes in muscle function and walking in cerebral palsy: a long term follow-up study. Combined Sections Meeting, APTA, Denver, CO.

Pontiff, M., **Moreau, N. G.** (2022, February). Safety and Feasibility of 1-Repetition Maximum Testing in Children and Adolescents with Cerebral Palsy. Academy of Pediatric Physical Therapy, Combined Sections Meeting, APTA, San Antonio, TX. -Best Platform presentation award, APPT, 2022. (Senior mentor)

Pontiff, M., **Moreau, N. G.** (2022, September). Reliability, Validity and Minimal Detectable Change of a Novel Power Leg Press Test in Individuals with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine, Las Vegas, NV.

Pontiff, M., **Moreau, N. G.** (2023, February). Lower Extremity Muscle Power Is Significantly Related to Muscle Architecture in Individuals with Cerebral Palsy. Academy of Pediatric Physical Therapy, Combined Sections Meeting, APTA, San Diego, CA.

**Moreau, N. G.** (2023, October). Micro to Macroscopic: Precision Medicine for Children with Cerebral Palsy. Research Summit VI sponsored by the Academy for Pediatric Physical Therapy, Alexandria, VA.

**Moreau, N. G.**, Bjornson, K. B., Licea, J., Mercante, D. (2024, October). Power Training combined with Interval Treadmill Training to Improve Walking Activity in Cerebral Palsy: A Randomized Controlled Trial. American Academy for Cerebral Palsy and Developmental Medicine, Quebec City, Canada.

**Moreau, N. G.**, Bjornson, K. B., Pontiff, M., Licea, J., Mercante, D. (2024, October). Effects of Power Training combined with Interval Treadmill Training on Muscle Performance in Youth with Cerebral Palsy as Compared to Traditional Approaches: A Randomized Controlled Trial. American Academy for Cerebral Palsy and Developmental Medicine, Quebec City, Canada.

**Moreau, N. G.**, Licea, J., Simon Peter, L. (2024, October). Expression of microRNAs and target genes associated with extracellular matrix remodeling and mitochondrial function are improved following intensive exercise training in children with cerebral palsy. American Academy for Cerebral Palsy and Developmental Medicine, Quebec City, Canada.

#### **Local:**

**Moreau, N.**, Tinsley, S. L., & Dugas, B. (2001, September). Stance phase characteristics as a predictor for rectus femoris transfers. In Louisiana State Physical Therapy Association Fall Conference, New Orleans, LA. -Best Platform Presentation Award

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**Moreau, N.**, Simpson, J., Wilkerson, J., & Gates, P. (2002, September). Goal specific outcomes of rectus femoris transfers in children with cerebral palsy based on stance-phase characteristics. In Louisiana State Physical Therapy Association Fall Conference, New Orleans, LA.

**Moreau, N.**, Tinsley, S., Cavell, A., & Semones, K. (2003, September). Long term outcomes of rectus femoris transfers in children with cerebral palsy. In Louisiana State Physical Therapy Association Fall Conference, New Orleans, LA.

### **Poster**

#### **International:**

**Moreau, N. G.**, Li, L., Damiano, D. L. (2006, September). Are muscle strength and fatigue related to walking velocity in individuals with and without cerebral palsy? Combined Gait & Clinical Movement Analysis Society/European Society of Movement Analysis for Adults and Children Meeting, Amsterdam, The Netherlands.

#### **National:**

**Moreau, N.**, Tinsley, S. L., Judd, D., Dugas, B., Fabre, J., Pennywell, S., Gates, P. (2001, April). Stance Phase Characteristics as a Predictor for Rectus Femoris Transfers. 6th Annual Meeting of the Gait and Clinical Movement Analysis Society, Sacramento, CA.

Tinsley, S. L., **Moreau, N.**, Pennywell, S., Judd, D., Dugas, B., Fabre, J. (2002, February). The effect of rectus femoris transfer and hamstring lengthening on gait in children with cerebral palsy. Section on Pediatrics, Combined Sections Meeting, APTA, Boston MA.

Tinsley, S. L., **Moreau, N.**, and Fabre, J. (2002, February). The Effects of Rectus Femoris Transfer Surgery on Gait in Children with Cerebral Palsy. Section on Pediatrics, Combined Sections Meeting, APTA, Boston MA.

**Moreau, N. G.**, Stanley, C., Teefey, S., Damiano, D. L. (2008, September). Relationship of muscle architecture of the quadriceps with strength and function in children with cerebral palsy. American Academy for Cerebral Palsy and Developmental Medicine, Atlanta, GA.

**Moreau, N. G.**, Stanley, C., Teefey, S., Damiano, D. L. (2009, February). Relationship of muscle architecture of the quadriceps with strength and function in children with cerebral palsy. Darby Research Children's Institute 4th Annual Meeting, Charleston, SC.

**Moreau, N. G.**, Holthaus, K. (2011, October). Motor Severity Negatively Affects Muscle Architecture in CP: a comparison between GMFCS levels, hemiplegia, and typically developing children. American Academy for Cerebral Palsy and Developmental Medicine, Las Vegas, NV.

**Moreau, N. G.**, Falvo, M., Damiano, D. L. (2011, April). Rapid force generation of the knee extensors is more impaired than strength in cerebral palsy and is related to

decreased muscle size and functional mobility. Gait and Clinical Movement Analysis Society Annual meeting, Bethesda, MD.

**Moreau, N.**, Surana, B., Dew, A., Ferre, C., Brandao, M., Gordon, A. (2019, February). Lower extremity functional training (LIFT) in young children with unilateral spastic cerebral palsy: immediate and long term outcomes. Academy of Pediatric Physical Therapy Combined Sections Meeting, APTA, Washington, DC.

Pontiff, M., **Moreau, N. G.** (2022, February). Feasibility, Reliability, and Precision of a Novel Power Leg Press Test in Cerebral Palsy. Academy of Pediatric Physical Therapy, Combined Sections Meeting, APTA, San Antonio, TX. (Senior mentor)

Pontiff, M., **Moreau, N. G.** (2022, September). Safety and Feasibility of 1-Repetition Maximum Testing in Children and Adolescents with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine, Las Vegas, NV. (Senior mentor)

Pontiff, M., **Moreau, N. G.** (2023, February). Muscle Power Generation Is Associated with Higher Levels of Walking Capacity, Activity and Participation. Academy of Pediatric Physical Therapy, Combined Sections Meeting, APTA, San Diego, CA. (Senior mentor)

Pontiff, M., **Moreau, N. G.** (2023, September). Muscle Architecture is Predictive of Lower Extremity Power Generation during a Novel Power Leg Press Test in Individuals with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine, Chicago, IL. (Senior mentor)

Pontiff, M., **Moreau, N. G.** (2023, September). Muscle Power Generation Is Significantly Associated with Higher Levels of Walking Capacity, Activity and Participation in Individuals with Cerebral Palsy. American Academy for Cerebral Palsy and Developmental Medicine, Chicago, IL. (Senior mentor)

#### **Local:**

**Moreau, N.**, Tinsley, S. L., and Fabre, J. (2001, September). The Effects of Rectus Femoris Transfer Surgery on Gait in Children with Cerebral Palsy. Louisiana State Physical Therapy Association Fall Conference, New Orleans, LA.

#### **Invited Presentations:**

**Moreau, N. G.** (2009, March). Muscle Architectural Plasticity in Children and Adolescents with Cerebral Palsy, University of South Carolina Arnold School of Public Health Research Seminar, Columbia, SC.

**Moreau, N. G.** (2010, March). Muscle Architectural Plasticity in Cerebral Palsy: Challenging Existing Paradigms. Scientific Retreat on Bioengineering and Regenerative Medicine sponsored by the South Carolina Clinical and Translational Research Institute & South Carolina Bioengineering Alliance, Charleston, SC.

**Moreau, N. G.** (2010, April). Muscle Architectural Plasticity in Cerebral Palsy: a Research Update. 9th Annual Pediatric Neuroscience Update sponsored by the Department of Neurosciences at the Medical University of South Carolina, Charleston, SC.

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**Moreau, N. G.**, Coker-Bolt, P., Poon, J., Jenkins, D. (2011, April). Life after the NICU: How to tell if your baby is okay. Pediatric Grand Rounds sponsored by the Department of Pediatrics at the Medical University of South Carolina, Charleston, SC.

**Moreau, N. G.** (2012, December). Muscle Architectural Adaptation in CP: Implications for Muscle Function. 18th Annual Management Strategies for Functional Impairments in Children with Neuromuscular Conditions sponsored by the Kluge Children's Rehabilitation & Research Institute at the University of Virginia, Charlottesville, VA.

**Moreau, N. G.** (2012, December). POWER Training in CP: It's not just for Athletes! 18th Annual Management Strategies for Functional Impairments in Children with Neuromuscular Conditions sponsored by the Kluge Children's Rehabilitation & Research Institute at the University of Virginia, Charlottesville, VA.

**Moreau, N. G.**, Fuchs, R., Gannotti, M. (2013, November). Muscle and Bone Structure and Function in Children with Cerebral Palsy: Implications for Physical Therapy Practice. Sacred Heart University, Fairfield, CT.

Heathcock, J., **Moreau, N. G.**, Fuchs, R., Gordon, A. (2014, March). Linking Structure to Function: Muscle, Bone, and Brain. Ohio Physical Therapy Association 2014 Annual Conference, Columbus, OH.

**Moreau, N. G.**, Kolobe, T. (2014, October). Measuring Outcomes of Interventions for Children with Cerebral Palsy. Washington Physical Therapy Association 2014 PTWA Conference, Seattle, WA.

**Moreau, N. G.**, Kolobe, T. (2014, October). Structural Changes in Muscle, Bone, and Brain in Cerebral Palsy: Implications for Practice. Washington Physical Therapy Association 2014 PTWA Conference, Seattle, WA.

**Moreau, N. G.** (2014, October). Dosing of Interventions to Improve Muscle and Bone Outcomes in Cerebral Palsy. Washington Physical Therapy Association 2014 PTWA Conference, Seattle, WA.

**Moreau, N. G.** (2014, November). Power Training in Cerebral Palsy: It's Not Just for Athletes. Georgia Southern University Research Seminar, School of Health and Kinesiology, Statesboro, GA.

**Moreau, N. G.**, Kolobe, T. (2015, April). Measuring Outcomes of Interventions for Children with Cerebral Palsy. APTA Colorado, Rocky Mountain Spring Conference and Physical Therapy Expo, Keystone Resort, CO.

**Moreau, N. G.**, Kolobe, T. (2015, April). Structural Changes in Muscle, Bone, and Brain in Cerebral Palsy: Implications for Practice. APTA Colorado, Rocky Mountain Spring Conference and Physical Therapy Expo, Keystone Resort, CO.

**Moreau, N. G.** (2015, April). Dosing of Interventions to Improve Muscle and Bone Outcomes in Cerebral Palsy. APTA Colorado, Rocky Mountain Spring Conference and Physical Therapy Expo, Keystone Resort, CO.

**Moreau, N. G.**, Gannotti, M. (2016, June 20). Linking Muscle and Bone Structure and Function in People with Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. County of Los Angeles, California CPTA, Children's Services, Glendale, CA.

**Moreau, N. G.** (2016, August). Power Training in Cerebral Palsy: It's Not Just for Athletes. CP Prep for Life Conference 2016, Grapevine, TX.

**Moreau, N. G.** (2016, November). Maximizing Gait Through Targeted Exercise Prescription in CP. University of Nebraska Medical Center, Department of Physical Therapy, Omaha, NE.

**Moreau, N. G.** (2017, June). Blazing New Trails: Updates in the Care of Children with Cerebral Palsy. Children's Hospital, New Orleans, LA.

**Moreau, N. G.**, Gannotti, M. (2017, August 21). Musculoskeletal Exercise Prescription Across the Lifespan for Individuals with Cerebral Palsy: Creating Structural and Functional Changes. County of Ventura, California CPTA, Children's Services/OTPT, Inc., Oxnard, CA.

**Moreau, N. G.** (2017, November 11). Muscle Structure and Function in Cerebral Palsy: Implications for Practice. Research Symposium: Pediatric Early Intervention, West Coast University, Los Angeles, CA.

**Moreau, N. G.** (2017, November 11). Lower Extremity Functional Training (LIFT) in young children with hemiplegic CP. Research Symposium: Pediatric Early Intervention, West Coast University, Los Angeles, CA.

**Moreau, N. G.** (2019, November 9). Linking Muscle Structure and Function in Individuals with Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. 20th Annual Susan Harryman Lectureship, Kennedy Krieger Institute, Baltimore, MD.

**Moreau, N. G.** (2020, October 5). Maximizing Gait and Function through Targeted Exercise Prescription in Cerebral Palsy. Research Seminar Series, Shirley Ryan AbilityLab, Chicago, IL.

**Moreau, N. G.** (2022, March 1). Skeletal Muscle in Cerebral Palsy Pre-Conference Symposium, Session 5: Exercise and Rehabilitation (Moreau, Chair/Presenter). Better Together 2022 AusACPDM / IAACD Conference, Melbourne, Australia (Virtual).

**Moreau, N. G.** (2022, June 20). Linking Muscle Structure and Function in Individuals with Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. Burke Neurological Institute Seminar Series, Weill Cornell Medicine, White Plains, NY.

**Moreau, N. G.** (2022, October 12). Dosing of Interventions to Improve Muscle Outcomes in Cerebral Palsy. Cincinnati Children's Rehabilitation Department, Cincinnati, OH.

**Moreau, N. G.** (2022, October 12). Addressing Muscle Performance Deficits in Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. Cincinnati Children's Colloquium, Cincinnati, OH.

**Moreau, N. G.** (2022, November 18). Linking Muscle Structure and Function in Individuals with Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. Columbia University Weinberg Seminar Series (virtual).

**Moreau, N. G.** (2023, February 24). Music Meets Muscle: Improving Muscle Outcomes in Cerebral Palsy. Sponsored by Biodex Medical, Combined Sections Meeting, San Diego, CA.

**Moreau, N. G.**, Heathcock, J. C., Bailes, A. F., Gannotti, M. E. (2023, March 9). Dosing for Pediatric Rehabilitation Session 1: Clinical Trial and Health Service Approaches. C-PROGRESS Dosing Webinar 2-part Course (virtual).

**Moreau, N. G.**, Heathcock, J. C., Bailes, A. F., Gannotti, M. E. (2023, April 4). Dosing for Pediatric Rehabilitation Session 2: Stakeholder and Pragmatic Trial Approaches. C-PROGRESS Dosing Webinar 2-part Course (virtual).

**Moreau, N. G.** (2023, April 13). Addressing Muscle Performance Deficits in Cerebral Palsy. Georgia Southern University, Statesboro, GA.

**Moreau, N. G.** (2023, June 12). Addressing Muscle Performance Deficits in Cerebral Palsy: Implications for Exercise Prescription Across the Lifespan. University of Alabama, Birmingham, AL.

**Moreau, N. G.** (2024, April 18). Dosing of Clinical Trials: Treatment Fidelity and Beyond. Seattle Children's Cerebral Palsy Grand Rounds, Seattle, WA.  
Is there anything else you need help with?

### **Grant Reviewer:**

2013-2014	<i>Grant Reviewer</i> – American Physical Therapy Association, Section on Pediatrics
2014-2015	<i>Grant Reviewer</i> – Thrasher Research Fund
2014-2015	<i>Grant Reviewer</i> – American Physical Therapy Association, Section on Pediatrics
2018	<i>Grant Reviewer</i> – NIH Early Career Research Award Grant Review Meeting (July 11, 2018)
2018	<i>Grant Reviewer</i> – NIH MOSS Study Section Ad Hoc Reviewer: Special Emphasis Panel on “Small Business: Musculoskeletal Rehabilitation Sciences” (Nov. 30, 2018)
2020	<i>Grant Reviewer</i> – NIH “Opportunities for Collaborative Research at the NIH Clinical Center (U01)” Special Emphasis Panel (July 23, 2020)
2022	<i>Grant Reviewer</i> – American Academy of Cerebral Palsy and Developmental Medicine (2022)
2023-present	<i>Grant Reviewer</i> Foundation for Physical Therapy Scientific Review Committee member

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- 2023      *Grant Reviewer* – NIH Study Section Reviewer: National Institutes of Neurological Disorders and Stroke Special Emphasis Panel on “Clinical Trials in Neurology” (August 16-17, 2023)
- 2024      *Grant Reviewer* – NIH Study Section Reviewer: Motor Function, Speech and Rehabilitation Study Section (June 3-4, 2024)
- 2024      *Grant Reviewer* – NIH Special Emphasis Panel: Medical Rehabilitation Research Resource Centers (P50) (November 4-5, 2024)

### **Editorial Posts and Activities:**

#### **Reviewer**

Physical Therapy Journal  
 Archives of Physical Medicine and Rehabilitation  
 Clinical Biomechanics  
 Developmental Medicine and Child Neurology  
 Disability and Rehabilitation  
 Muscle & Nerve  
 Pediatric Physical Therapy  
 Gait & Posture  
 Journal of Biomechanics  
 Pediatrics  
 Disability and Rehabilitation  
 Stroke Research and Treatment  
 Physical and Occupational Therapy in Pediatrics

### **SERVICE AND ADMINISTRATION**

#### **University/Institutional Service:**

##### **LSUHSC (campus) committees**

- 2015-present    School of Allied Health Professions' Research Dean's Committee for Interprofessional Research – Louisiana State University Health Sciences Center – New Orleans
- 2017-present    Safe Zone Training for Faculty
- 2022              LSUHSC School of Medicine Intramural Grant Reviewer
- 2023-present    LSUHSC Strategic Planning Research Work Group Member
- 2023-present    LSUHSC Member of the Research Advisory Council (RAC) to the Chancellor
- 2023-present    Co-Chair of the LSUHSC Interprofessional Intramural Grants Program

##### **School committees**

- 2013-present    Member of the Grants and Research Committee – Louisiana State University Health Sciences Center School of Allied Health
- 2013-2018      Chair of the Grants and Research Committee – Louisiana State University Health Sciences Center School of Allied Health

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- 2014-present Member of the Promotion and Tenure Committee – Louisiana State University Health Sciences Center School of Allied Health
- 2018-2022 Faculty Liason of the Grants and Research Committee – Louisiana State University Health Sciences Center School of Allied Health
- 2022-present Strategic Planning Committee – Louisiana State University Health Sciences Center School of Allied Health
- 2024-present Administrative Liason to the Grants and Research Committee – Louisiana State University Health Sciences Center School of Allied Health

### **Departmental committees**

- 2013-2024 DPT III Promotions Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2013-2024 Research Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2015-2016 Chair of the Faculty Search Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2015-2023 Chair of the Research Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2016-2017 Chair of the Faculty Search Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2017-2018 Search Committee Member –Chair of the Department of Communications Disorders, Louisiana State University Health Sciences Center School of Allied Health
- 2017-2019 DPT II Promotions Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy
- 2023-2024 Chair of the Faculty Search Committee – Louisiana State University Health Sciences Center School of Allied Health, Department of Physical Therapy

### **National Service:**

- 2001-20002 *Steering Task Force*  
Shriners Hospitals Motion Analysis Laboratory Network
- 2007-2009 Gait and Clinical Movement Analysis Society Abstract Reviewer
- 2009-2012 Combined Sections Meeting Abstract Reviewer, Section on Pediatrics
- 2009-present *Research Committee Member*  
Section on Pediatrics, American Physical Therapy Association
- 2010-2012 *Awards Committee* – American Academy of Cerebral Palsy and Developmental Medicine
- 2010-2013 *Chair of the Awards Committee* - Section on Pediatrics, American Physical Therapy Association
- 2018-2019 *Research Summit V Planning Committee Member* - American Physical Therapy Association, Section on Pediatrics
- 2023-present Foundation for Physical Therapy Scientific Review Committee member

### **International Service:**

2021-present Member of the International Delphi consensus team to reach consensus on the interpretation of the macroscopic morphological muscle characteristics of children with cerebral palsy (CP) and on their role in the clinical decision-making process referred to as the Mammoth-agreement, which focuses on achieving consensus regarding the clinical use of Macroscopic Muscle Morphology for Treatment Harmony in cerebral palsy.

### **Membership in Professional Organizations:**

1996-2008 Louisiana Physical Therapy Association (LPTA)  
 1996-present American Physical Therapy Association (APTA)  
 1999-present Gait and Clinical Movement Analysis Society (GCMAS)  
 2012-present Louisiana Physical Therapy Association (LPTA)  
 2008-2012 South Carolina Physical Therapy Association (SCAPTA)  
 2007-present American Academy of Cerebral Palsy and Developmental Medicine (AACPDM)  
 2004-present APTA, Academy of Pediatric Physical Therapy, formerly Section on Pediatrics

### **Administrative Responsibilities:**

#### **School**

Associate Dean for Research      School of Allied Health Professions

**Continuing Education Courses Attended:** (\*Listing only those of great importance to the profession)

**III STEP 2005.** Section on Pediatrics and Section on Neurology, American Physical Therapy Association. July 15-21, 2005, Salt Lake City, UT.

**The Third National Pediatric Research Summit (RSIII). *Dosing of Interventions for Children with an Injured Brain.*** Section on Pediatrics, American Physical Therapy Association. October 28-30, 2011, Alexandria, VA.

**State-of-the-Science and Treatment Decisions in Cerebral Palsy Workshop 2014.** National Institutes of Health (NINDS/NICHHD). November 12-13, 2014. Neuroscience Center, Rockville, MD

**The Fourth National Pediatric Research Summit (RSIV). *Innovations in Technology for Children with Brain Insults: Maximizing Outcomes.*** Section on Pediatrics, American Physical Therapy Association. October 15-17, 2015, Alexandria, VA.

**IV STEP 2016. Prevention, Plasticity, and Participation.** Section on Pediatrics and Section on Neurology, American Physical Therapy Association. July 14-19, 2016, The Ohio State University.

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**The Fifth National Pediatric Research Summit (RSV). *Optimizing transitions from infancy to young adulthood in children with neuromotor disabilities: biological & environmental factors to support functional independence.*** Section on Pediatrics, American Physical Therapy Association. October 18-19, 2019, Alexandria, VA. (*Member of the Research Summit V Planning Committee*)

**NIH Rehabilitation Research 2020: Envisioning a Functional Future.** National Institutes of Health (NICHD/NCMRR). October 15-16, 2020

**National Institutes of Health NINDS/NICHD Cerebral Palsy Workshop.** August 17-18, 2022.

**The Sixth National Pediatric Research Summit (RSVI). *Precision Rehabilitation Research for Children with Neuromotor Conditions.*** Academy of Pediatric Physical Therapy, American Physical Therapy Association. October 19-21, 2023, Alexandria, VA.