

CURRICULUM VITAE

Andrew E. Littmann, PT, PhD, MA

School of Physical Therapy

Rueckert-Hartman College for Health Professions

Regis University

EDUCATION:

Ph.D

Rehabilitation Science, May 2012

University of Iowa, Iowa City, IA

MA

Physical Therapy, December 1998

University of Iowa, Iowa City, IA

BS

Physical Therapy and Psychology, December 1989

University of Wisconsin-Madison, Madison, WI.

Licensure Information:

Colorado Licensed Physical Therapist, #3265, 1990-present.

Iowa Licensed Physical Therapist, #2555, 1997-2019.

Wisconsin Licensed Physical Therapist, #3873, 1989-2011.

New Zealand Registered Physiotherapist, #70-07643, 2002-present.

Certifications:

Board Certified Clinical Specialist in Neurologic Physical Therapy, ABPTS, 2001-2011.

Employment & Positions Held

Academic Experience

Associate Professor

Regis University, School of Physical Therapy

Denver, CO

August 2016-present

Assistant Professor

Regis University, School of Physical Therapy
Denver, CO
August 2012- July 2016

Graduate Research Assistant
University of Iowa, Graduate Program in Physical Therapy and Rehabilitation Science, Iowa
City, IA
January 2006 – May 2011

Clinical Tutor
University of Otago, School of Physiotherapy
Dunedin, New Zealand
May 2002 - Nov 2005

Director, Balance Clinic
University of Otago, School of Physiotherapy
Dunedin, New Zealand
May 2002 - Nov 2005

Graduate Research Assistant
University of Iowa, Graduate Program in Physical Therapy and Rehabilitation Science Iowa
City, IA
January 1997 - May 1999

Non-Academic Experience

Physical Therapist, Neurology and Neurosurgery, University of Iowa Hospitals and Clinics, Iowa
City, IA
1997-2000

Clinical Coordinator of Clinical Education, Penrose-St. Francis Healthcare System, Colorado
Springs, CO
1994-1996

Senior Physical Therapist and Clinical Instructor, Penrose-St. Francis Healthcare System,
Colorado Springs, CO
1990-1996

Peer Reviewed Publications:

Galgon AK, Roberts HJ, **Littmann AE**, Heusel-Gillig LL, Dransfield L, Plishka CM, Wrisley DM. A survey of entry-level physical therapy education content for vestibular rehabilitation. *J Phys Ther Educ.* (in review)

Jung FC, Mathew S, **Littmann AE**, MacDonald CW (2017). Clinical decision making in the management of patients with cervicogenic dizziness: a case series. *J Orthop Sports Phys Ther.* 47(11): 874-884.

Littmann AE & Shields RK (2016). Whole body heat stress increases motor cortical excitability and skill acquisition in humans. *Clin Neurophysiol.* 127(2): 1521-1529.

Littmann AE, McHenry CL, Shields RK (2013). Variability of motor cortical excitability using a novel mapping procedure. *J Neurosci Methods*, 214(2), 137-43.

Littmann AE, Iguchi M, Madhavan S, Kolarik JL, Shields RK (2012). Dynamic-position-sense impairment's independence of perceived knee function in women with ACL reconstruction. *J Sport Rehabil*, 21(1), 44-53.

Iguchi M, **Littmann AE**, Chang S-H, Wester L, Knipper J, Shields RK (2012). Heat stress and cardiovascular, hormonal, and heat shock proteins in humans. *J Athl Train* 47(2), 184-190.

Chang S-H, Tseng S-C, McHenry C, **Littmann AE**, Suneja M, Shields RK (2012). Limb segment vibration modulates spinal reflex excitability and muscle mRNA expression after spinal cord injury. *Clin Neurophysiol* , 123(3), 558-68.

Dudley-Javoroski S, **Littmann AE**, Chang S-H, McHenry CL, Shields RK (2011). Enhancing muscle force and femur compressive loads via feedback-controlled stimulation of paralyzed quadriceps in humans. *Arch Phys Med Rehabil*, 92(2), 242-49.

Dudley-Javoroski S, **Littmann AE**, Iguchi M, Shields RK (2008). Doublet stimulation protocol to minimize musculoskeletal stress during paralyzed quadriceps muscle testing. *J Appl Physiol*, 104(6), 1574-82.

Hale LA, Bray A, **Littmann A** (2007). Assessing the balance capabilities of people with profound intellectual disabilities who have experienced a fall. *J Intellect Disabil Res*, 51(4), 260-68.

Shields RK, Dudley-Javoroski S, **Littmann AE** (2006). Postfatigue potentiation of the paralyzed soleus muscle: evidence for adaptation with long-term electrical stimulation training. *J Appl Physiol*, 101, 556-65.

Hale LA, Schou E, Piggot J, **Littmann A**, Tumilty S (2003). The effect of a combined exercise programme for people with multiple sclerosis: a case series. *New Zealand Journal of Physiotherapy*, 31(3), 130-38.

Peer Reviewed Scientific and Professional Presentations:

International

Littmann AE, Galgon A, Wrisley D, Dransfield L, Heusel-Gillig, L, Plishka C, Roberts H. A survey of entry-level physical therapy education content for vestibular rehabilitation: a pilot study.

International Conference for Vestibular Rehabilitation, Chicago IL.
August 18, 2018

Littmann AE

Dizziness and neck pain: is it really the neck?

New Zealand Society of Physiotherapists National Conference, Christchurch, NZ.
June 2004

National

Bolen A, Vega GM, **Littmann AE**.

The physical therapist's role in regenerative medicine: rehabilitation following neurological stem cell transplantation for SCI.

Combined Sections Meeting of the American Physical Therapy Association. Washington DC.
December 2019

Holmes, K., Burks, M., Anderson, C., Artery, J., Kealy, L., Olson, G., Sercel, K., **Littmann, AE.**, Nelson-Wong, E

Muscular bracing as an effective strategy for maintaining lumbopelvic control.

Rocky Mountain Regional Meeting of the American Society of Biomechanics, Estes Park, CO.
August 2015

Barnes CL, Tschoepe BA, Smith MB, **Littmann AE**, Brossart R, Brown J, Ellefson SK, Fred J, McFadden RD, Tschoepe JA.

High intensity backward walking treadmill training for individuals with Parkinson's disease. Combined Sections Meeting of the American Physical Therapy Association, Indianapolis, IN. February 2015

Smith MB, **Littmann AE**, Ho PG, Hoelzel EL, Hultine HJ, McCarthy S, Scott P, Sheets P, Weingartner A.

Progressive reactive balance training in Parkinson's Disease: a pilot study. Combined Sections Meeting of the American Physical Therapy Association, Indianapolis, IN. February 2015

Burks M, Anderson C, Artery J, Holmes K, Kealy L, Olson G, Sercel K, **Littmann AE**, Nelson-Wong E

Muscular bracing as an effective strategy for maintaining lumbopelvic control during frontal plane stability challenges in a subgroup of patients with low back pain (2015). Combined Sections Meeting of the American Physical Therapy Association, Indianapolis, IN. February 2015

Dudley-Javoroski S, Adams CM, Suneja M, Faidley EA, **Littmann AE**, Tseng S-C, Shields RK. Electrical and mechanical stimulation regulate mRNA expression in human paralyzed muscle. Society for Neuroscience Annual Meeting, Washington, DC. February 2011

Dudley-Javoroski S, Adams CM, **Littmann AE**, Suneja M, McHenry CL, Saha P, Shields RK. Long-term training with electrical stimulation regulates muscle gene expression and bone architecture after SCI. American College of Sports Medicine Annual Meeting, Denver, CO. June 2011

Dudley-Javoroski S, **Littmann AE**, McHenry CL, Shields RK. Long term muscle adaptations to quadriceps electrical stimulation training in humans with spinal cord injury. Society for Neuroscience Annual Meeting, San Diego, CA. February 2010

McHenry CL, **Littmann AE**, Chang J, Ivey M, Schirmer H, Veltri J, Shields RK.

Heat stress influences neuromuscular control during a novel weight-bearing task. Society for Neuroscience Annual Meeting, San Diego, CA.
February 2010

Littmann AE, Chang J, McHenry CL, Houska E, Huey S, Waggoner J, Shields RK. Passive heat stress and neuromuscular training influence motor cortical excitability of the FDI muscle. Society for Neuroscience Annual Meeting, San Diego, CA. February 2010

Dudley-Javoroski S, **Littmann AE**, Chang S-H, Shields RK.
Feedback controlled quadriceps stimulation to optimize musculoskeletal loading in stance after spinal cord injury.
Society for Neuroscience Annual Meeting, Chicago, IL.
November 2009

Shields RK, Dudley-Javoroski S, **Littmann AE**.
Active standing under electrical stimulation control influences muscle adaptations after spinal cord injury.
Combined Sections Meeting of The American Physical Therapy Association, Las Vegas NV.
February 2009

Shields R, Iguchi M, **Littmann AE**, Wester L.
Influence of whole-body heat stress on muscle fatigue in humans.
Combined Sections Meeting of The American Physical Therapy Association, Las Vegas, NV.
February 2009

Shields RK, Dudley-Javoroski S, **Littmann AE**.
Active resistive standing influences musculoskeletal adaptations after spinal cord injury. Society for Neuroscience Annual Meeting, Washington, DC.
November 2008

Iguchi M, Dudley-Javoroski S, **Littmann AE**, Shields RK.
Doublet stimulation: a safer technique for testing paralyzed quadriceps force and contractile speed.
Combined Sections Meeting of The American Physical Therapy Association, Nashville, TN.
February 2008

Littmann AE, Iguchi M, Shields RK.
Influence of knee ACL reconstruction on dynamic position sense: evidence using a sequential movement task.
Combined Sections Meeting of The American Physical Therapy Association, Nashville, TN.

February 2008

Madhavan S, Iguchi M, **Littmann AE**, Shields RK (2007).

Expected knee perturbations alter neuromuscular control during a single leg weight bearing exercise.

Combined Sections Meeting of The American Physical Therapy Association, Boston, MA.
February 2007

Madhavan S, Dye L, Humbert SB, Muckler BA, Rodemeyer T, Rubner J, **Littmann AE**, Shields RK.

Practice improves accuracy and alters neuromuscular activation patterns during a single leg weight bearing task in females.

Combined Sections Meeting of The American Physical Therapy Association, Boston, MA.
February 2007

Shields, RK, Clark SD, Grant SA, Tysseling VM, Zwart BD, Schindler-Ivens S, **Littmann AE**.

Analysis of bone mineral density in individuals with spinal cord injury.

APTA National Meeting, Indianapolis, IN.
June 2000

Shields RK, Chang YJ, **Littmann AE**, Schindler-Ivens S.

Effects of electrically-induced training on muscle fatigue and h-reflex suppression in individuals with paralysis.

Society for Neuroscience Annual Meeting, Miami, FL.
November 1999

Shields RK Chang YJ, **Littmann AE**.

The effects of potentiation and fatigue on the electromyographic properties of paralyzed muscle.

Society for Neuroscience Annual Meeting, New Orleans, LA.
November 1997

Non-Peer Reviewed Scientific and Professional Presentations

Littmann AE (2016). Neuroplasticity: Implications for Stroke Rehabilitation. SCL Health Stroke Symposium, Denver, CO.

Gorman I, Littmann AE, Miranda N (2013). The Role of the Physical Therapist in Concussion Management: Pain, Balance and Vestibular Dysfunction. Colorado Youth Sports Concussion SIG, Denver, CO.

Littmann AE (2013). Therapeutic Modulation of Central Nervous System Plasticity. Faculty Forum, Rueckert-Hartman College for Health Professions, Regis University, Denver CO.

Funded/ In Review Grant Activity

Funded

2010: Littmann AE. University of Iowa Strategic Initiative Fellowship (\$25,000), University of Iowa Graduate College.

2009: Littmann, AE & Shields, RK, Promotion of Doctoral Studies II Award (\$15,000), Foundation for Physical Therapy.

2008: Littmann, AE & Shields, RK. Promotion of Doctoral Studies I Award (\$7,500), Foundation for Physical Therapy.

2007: Littmann, AE& Shields, RK . Promotion of Doctoral Studies I Award (\$7,500), Foundation for Physical Therapy.

2006: Littmann, AE & Shields, RK. Florence P. Kendall Doctoral Scholarship (\$5,000), Foundation for Physical Therapy.

Membership in Scientific/Professional Organizations: (include dates and positions held)

American Physical Therapy Association

1988-present

Member

APTA, Academy of Neurological Physical Therapy

2006-present

Member

Society for Neuroscience

2006-2015

Member

Consultative & Advisory Positions Held:

Reviewer

Experimental Physiology

2014-present

Physiotherapy Theory and Practice

2014-present

Journal of Electromyography and Kinesiology

2015-present
Motor Control
2016-present
Journal of Spinal Cord Medicine
2018-present
Complementary Therapies in Clinical Practice
2021

Community Service:

2013-2019: 9Health Fair, Denver, CO
2015-2018: Project Homeless Connect, Denver, CO
2021-present: Volunteer puppy raiser, Canine Companions for Independence, Denver CO

Services to the University /college/school on Committees/ Councils/ Commissions

College Assignments

School:

2012-present: HES Curriculum Committee
2013: Dual Degree Committee
2013: Clinical Education Models Committee
2013-2106: Class of 2016 Faculty Advisor
2014-present: DPT Student Research Advisor
2015: School of Physical Therapy Dean Search Committee
2015-2016: School of Physical Therapy Faculty Search Committee
2017-present: Strategic Planning Creative Ingenuity Committee
2018: School of Physical Therapy Senior Faculty Search Committee
2019-present: Advisor, Physical Therapy Scholars Program
2019-present: School of Physical Therapy Awards Committee

College:

2013: School of Pharmacy Faculty Search Committee (external member)
2015-present: College Assessment Committee
2016-2019: RHCHP HIPAA Privacy Board
2017-present: RHCHP Committee for Research and Scholarship

National:

2016-present: Frontiers in Rehabilitation Science and Technology Council: American Physical Therapy Association

2016-present: Vestibular Special Interest Group, Academy of Neurological Physical Therapy

Honors & Awards

Award

2010: University of Iowa Alumni PhD Scholarship

2009: Viva J. Erikson Award, Foundation for Physical Therapy

2007: Patricia Leahy Memorial Scholarship, Neurology Section, American Physical Therapy Association.

Continuing Education Attended

2020: Combined Sections Meeting of the American Physical Therapy Association, Denver CO

2019: Combined Sections Meeting of the American Physical Therapy Association, Washington, DC

2018: Headstrong: Differential Diagnosis and Management of Concussion Recovery, Denver, CO

2018: Combined Sections Meeting of the American Physical Therapy Association, New Orleans, LA

2017: Combined Sections Meeting of the American Physical Therapy Association, San Antonio, TX

2016: IV Step Conference: Prevention, Prediction, Plasticity, and Participation, Columbus, OH

2016: Combined Sections Meeting of the American Physical Therapy Association, Anaheim, CA

2015: Combined Sections Meeting of the American Physical Therapy Association, Indianapolis, IN

Research related conference/seminar

2020: APTA Combined Sections Meeting. Denver, CO

2019: APTA Combined Sections Meeting. Washington, DC

2018: International Conference for Vestibular Rehabilitation, Chicago, IL

2018: APTA Combined Sections Meeting. New Orleans, LA

2017: APTA Combined Sections Meeting. San Antonio, TX

2016: APTA Combined Sections Meeting. Anaheim, CA

2016: IV Step Conference, APTA Academy of Neurologic Physical Therapy, Columbus, OH

2015: APTA Combined Sections Meeting. Indianapolis, IN

2014: APTA Combined Sections Meeting. Las Vegas, NV
2013: APTA Combined Sections Meeting. San Diego, CA
2012: APTA Combined Sections Meeting, Chicago, IL
2011: APTA Combined Sections Meeting, New Orleans, LA
2010: APTA Combined Sections Meeting, San Diego, CA
2010: Society for Neuroscience Annual Meeting, San Diego, CA
2009: APTA Combined Sections Meeting, Las Vegas, NV
2008: APTA Combined Sections Meeting, Nashville, TN
2007: APTA Combined Sections Meeting, Boston, MA
2006: APTA Combined Sections Meeting, San Diego, CA
2004: New Zealand Society of Physiotherapists National Meeting, Christchurch, NZ
1997: Society for Neuroscience Annual Meeting, New Orleans, LA

Current Teaching Responsibilities in the Entry-Level Program for 2020-2021 Academic Year:

Fall 2020: DPT 701 Human Anatomy and Histology
DPT 736 Neurological Management I
DPT 780R Special Topics – Vestibular Rehabilitation (Coordinator)

Spring 2021: DPT 706 Movement Science (Coordinator)
DPT 737 Neurological Management II
DPT 796 Capstone Portfolio
HES 440 Concepts of Motor Behavior (Coordinator)
HES 441 Concepts of Motor Behavior Lab (Coordinator)

Sum 2021: DPT 707 Examination of Movement System
DPT 774 Professional Issues V: Case Management