

Amanda A. Herrmann

HealthPartners Neuroscience Center, St. Paul, MN 55130
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EDUCATION

- Doctor of Philosophy, Health and Rehabilitation Science August 2017
Emphasis: Functional Limitations
Medical University of South Carolina
Advisor: Jesse Dean, Ph.D.
- Master of Science, Kinesiology May 2012
Emphasis: Biomechanics & Neural Control
Minor: Clinical Physiology and Movement Science
University of Minnesota - Twin Cities
Advisor: Jürgen Konczak, Ph.D.
- Bachelor of Science, Kinesiology (Pre-Physical Therapy) December 2009
University of Minnesota - Twin Cities

POSITIONS

- Research Associate** April 2021-Present
HealthPartners Neuroscience Center, St. Paul, MN
Supervisor: Dr. Leah Hanson
- Adjunct Assistant Professor** February 2021-Present
University of Minnesota - Twin Cities
Department of Rehabilitation Medicine
- Research Fellow** February 2018-March 2021
HealthPartners Neuroscience Center, St. Paul, MN
Supervisor: Dr. Leah Hanson
- Graduate Research Assistant** August 2013-August 2017
Locomotion & Energetics Group
Medical University of South Carolina, Charleston, SC
Advisor: Dr. Jesse Dean
- Graduate Research Assistant** September 2010-May 2012
Human Sensorimotor Control Laboratory
University of Minnesota - Twin Cities, Minneapolis, MN
Advisor: Dr. Jürgen Konczak

Undergraduate Research Assistant
Human Sensorimotor Control Laboratory
University of Minnesota - Twin Cities, Minneapolis, MN
Advisor: Dr. Jürgen Konczak

October 2008-December 2009

TEACHING EXPERIENCE

Guest Lecture Speaker – Movement Science
Division of Physical Therapy
Medical University of South Carolina, Charleston, SC

May 2014

Teaching Assistant - Introduction to Biomechanics
Department of Kinesiology
University of Minnesota - Twin Cities, Minneapolis, MN

January 2011-May 2012

PUBLICATIONS

Hussein HM, Chrenka EA, **Herrmann AA**. Rate and Predictors of Acute Care Encounters in the First Month After Stroke. *J Stroke Cerebrovasc Dis.* 2022;31(6):106466.

Herrmann AA, Chrenka EA, Niemioja GM, et al. Readmission to an Acute Care Hospital During Inpatient Rehabilitation After Stroke. *Am J Phys Med Rehabil.* 2022;101(5):439-445.

Jackson SD, Wiering BA, **Herrmann AA**, Hinz MA, Hanson LR. Solitary bone plasmacytoma compression injury disguised as back pain: a case report. *Spinal Cord Ser Cases.* 2019;5:16.

Jackson SD, Wiering BA, Bentley IA, **Herrmann AA**, Hanson LR. From A to D: A Unique Case Report of Recovery After Longitudinal Myelitis Related to Lupus. *Am J Phys Med Rehabil.* 2019;98(10):e119-e122.

Herrmann AA, Othman SI, DeFoe KM, Carolan EJ, Rosenbloom MH. Spinal epidural abscess: Esophageal fistula as a potential infection source. *Interdiscip Neurosurg.* 2019 June; 16:42-3.

Elangovan N, **Herrmann A**, Konczak J. Assessing proprioceptive function: evaluating joint position matching methods against psychophysical thresholds. *Phys Ther.* 2014;94(4):553-561.

ACTIVE PROJECTS

Principal Investigator (PI):

Acupuncture Treatment for Individuals with Myasthenia Gravis (2021-2024). Funding Source: HealthPartners Park Nicollet Foundation.

Acupuncture Treatment for Chronic Post-traumatic Headache in Individuals with Mild Traumatic Brain Injury (2019-2023). Funding Source: Minnesota Office of Higher Education.

Co-PI:

The Effect of an Adaptive Exercise Program on Chronic Inflammation in Spinal Cord Injury (2021-2024). Funding Source: Minnesota Office of Higher Education. Co-PI with Dr. Steven Jackson.

Site Principal Investigator (PI):

Feasibility of a purpose in life renewal intervention for adults with post-concussion syndrome (2022-2024). Funding Source: Minnesota Office of Higher Education. Prime Site: Allina Health. PI: Dr. Mary Radomski.

Remotely Delivered Cognitive Multisensory Rehabilitation for Sensory and Motor Recovery after Spinal Cord Injury (2022-2024). Funding Source: Minnesota Office of Higher Education. Prime Site: University of Minnesota. PI: Dr. Ann Van de Winckel.

Co-Investigator:

Virtual Reality Cognitive Therapy for Alzheimer's Disease (2022-2023). Funding Source: National Institute on Aging. Site PI: Dr. Leah Hanson.

Minnesota Regional Spinal Cord Injury Model System (2021-2026). Funding Source: National Institute on Disability Independent Living and Rehabilitation Research. Site PI: Dr. Leah Hanson.

Mindfulness-Based Dementia Care Partner Program to Reduce Depressive Symptoms (2021-2022). Funding Source: National Institute on Aging (NIA) IMbedded Pragmatic Alzheimer's disease (AD) and AD-Related Dementias (AD/ADRD) Clinical Trials (IMPACT) Collaboratory. PI: Dr. Leah Hanson.

COMPLETED PROJECTS

Co-Investigator:

Powered Hand Grip Orthosis for Functional Independence (2020-2022). Funding Source: National Institute of Child Health and Human Development. Site PI: Dr. Steven Jackson.

Implementation of the Pittsburgh Vocal Cord Dysfunction (VCD) Index for Earlier Identification and Treatment of VCD (2019-2021). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Charlene McEvoy.

Identifying Racial and Ethnic Outcome Disparities after Discharge from Acute Inpatient Rehabilitation (2019-2021). Funding Source: Regions Hospital RED Fund. PI: Dr. Steven Jackson.

Optimization of a Shared Decision-Making Process for Initiation of Early Enteral Nutrition Intervention in Amyotrophic Lateral Sclerosis (2018-2021). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Gaurav Guliani.

Development and Implementation of Stroke and Traumatic Brain Injury Clinical Practice Guidelines for Inpatient and Outpatient Rehabilitation (2018-2021). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Rebecca Koerner.

Potentially Preventable Readmissions of Stroke Patients after Inpatient Rehabilitation (2018-2021). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Gretchen Niemioja.

Evaluation of the Pre-Operative Pain Consult (2018-2021). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Isaac Marsolek.

Comprehensive Cardiac Rehabilitation Feasibility after Stroke – CCR FAST (2018-2020). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Haitham Hussein.

Identifying Factors that Influence Discharge Outcomes in Spinal Cord Injury Patients after Acute Inpatient Rehabilitation (2017-2020). Funding Source: Regions Hospital Research, Education, and Development Fund. PI: Dr. Steven Jackson.

CONFERENCE ABSTRACTS

Herrmann AA, Chrenka EA, Farrell MT, Hanson LR, and Jackson SD. Identifying racial and ethnic outcome disparities after discharge from acute inpatient rehabilitation [Poster]. American Society for Neurorehabilitation, St. Louis, MO. 2022.

Herrmann, AA, Chrenka EA, Hanson LR, Hussein HM, and Niemioja GM. Potentially Preventable Readmissions after Inpatient Rehabilitation [Poster]. American Society for Neurorehabilitation. Virtual. 2021.

Herrmann, AA, Chrenka EA, O’Keefe LR, Bohnert BM, House CM, Nelson WB, Hanson LR, and Hussein HM. Comprehensive Cardiac Rehabilitation Feasibility after Stroke (CCR FAST) [Poster]. American Society for Neurorehabilitation. Virtual. 2021.

Erickson, LO, Clarkin, A, Brinkman Theimer, K, **Herrmann, AA,** Hanson, LR, Palomino, M, Guliani, G. Optimization of a Shared Decision-Making Process for Initiation of Early Enteral Nutrition Intervention in Amyotrophic Lateral Sclerosis (ALS) [Poster]. Northeast ALS Association Meeting. Virtual. 2020.

Hussein, HM, Chrenka, EA, **Herrmann, AA,** Droegemueller, CJ. Predictors of Readmission after Stroke in a Cohort of Privately Insured Patients [Poster]. International Stroke Conference Annual Meeting, Los Angeles, CA. 2020.

Herrmann, AA, Niemioja, G, Chrenka, E, Othman, SI, Podoll, K, Oie, A, & Hussein, HM. Unplanned Interruption of Acute Rehabilitation after Stroke [Poster]. American Academy of Neurology Meeting, Virtual. American Society of Neurorehabilitation, Chicago, IL. 2020.

Herrmann, AA, Othman, SI, Jamal, S, Niemioja, GM, & Hussein, HM. Causes of Interruption of Acute Rehabilitation and Readmission after Stroke [Poster]. American Academy of Neurology Annual Meeting, Philadelphia, PA. 2019.

Hussein, HM, Brown, MM, **Herrmann, AA,** & Anderson, DC. Impact of Prehospital LVO Tools on the Delay of Care and Redistribution of Patients between Primary and Comprehensive Stroke Centers [Poster]. International Stroke Conference Annual Meeting, Honolulu, HI. 2019.

Hussein, HM, Brown, MM, & **Herrmann AA.** A Travel Time and Efficiency Simulation for Patient Transport to Primary and Comprehensive Stroke Centers [Poster]. International Stroke Conference Annual Meeting, Honolulu, HI. 2019.

Kashyap, B, Hall, S, Erickson, LO, Pearsall, VM, **Herrmann, AA,** Hanson, LR, & Marsolek, IT. Retrospective Analysis of Hospital and Patient-Reported Outcomes with Pre-Operative Pain Consult PoPC in Spinal

Fusion Surgery Patients [Poster]. International Association for the Study of Pain Annual Meeting, Boston, MA. 2018.

Herrmann, AA & Dean JC. Effects of Ankle Tendon Vibration on Post-Stroke Ankle Proprioception [Poster]. American Society of Biomechanics Annual Meeting, Rochester, MN. 2018.

Herrmann, AA & Dean, JC. Effects of Ankle Tendon Vibration on Proprioception in Chronic Stroke [Poster]. Center for Biomedical Research Excellence in Stroke Recovery Annual Meeting, Charleston, SC. 2017.

Herrmann, AA & Dean, JC. Changes in Task Demand Influence Adaptation of the Preferred Gait Pattern During Human Walking [Poster]. World Congress of Biomechanics, Boston, MA. 2014.

Elangovan N, **Herrmann AA**, & Konczak, J. Measuring Proprioception: Comparison of Clinical Evaluations to Psychophysical Thresholds [Poster]. College of Education and Human Development Research Day, University of Minnesota, Minneapolis, MN. 2012.

Sorensen MD, **Herrmann AA**, Pickett KA, Li K, & Konczak J. Just Noticeable Difference Thresholds for Kinesthetic Sensitivity at the Elbow [Poster]. Society for Neuroscience, Chicago, IL. 2009.

ORAL PRESENTATIONS

Herrmann AA. Neurorehabilitation Research at HealthPartners Neuroscience Center: Past, Present, & Future. St. Kates Katies for Aging Research and Equity (KARE) Program. Virtual, 2022.

Herrmann AA. My Current Role and Research Projects/Goals. HealthPartners Institute Celebration of Research and Evaluation. Bloomington, MN. Pre-recorded, 2022.

Herrmann AA, Hussein HM. Comprehensive Cardiac Rehabilitation Feasibility after Stroke (CCR FAST). Minnesota Primary Stroke Center/Comprehensive Stroke Center Stroke Advisory Group. Virtual, 2022.

Herrmann AA. Neurorehabilitation Research at HealthPartners Neuroscience Center: Past, Present, & Future. HealthPartners Bloomington Research & Evaluation Meeting. Virtual, 2022.

Herrmann AA. Acupuncture Treatment for Individuals with Myasthenia Gravis. Myasthenia Gravis Minnesota (MG MN) Support Group Meeting. Virtual, 2022.

Herrmann AA. Neurorehabilitation Research at HealthPartners Neuroscience Center: Past, Present, & Future. Regions Hospital Rehabilitation Services Department Meeting. Virtual, 2022.

Herrmann AA, Jackson SJ. The Effect of an Adaptive Exercise Program on Chronic Inflammation in Spinal Cord Injury. Minnesota Regional Spinal Cord Injury Model System Grand Rounds. Virtual, 2022.

Herrmann AA, Chrenka EA, Farrell MT, Hanson LR, and Jackson SD. Identifying racial and ethnic outcome disparities after discharge from acute inpatient rehabilitation. American Society for Neurorehabilitation, St. Louis, MO. 2022.

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Hussein, HM, Chrenka, EA, **Herrmann, AA**, Droegemueller, CJ. Predictors of Readmission after Stroke in a Cohort of Privately Insured Patients. American Academy of Neurology Annual Meeting. Virtual, 2020.

Herrmann AA. Cognitive Rehabilitation. Center for Memory and Aging Journal Club. HealthPartners Neuroscience Center, St. Paul, MN. 2019.

Herrmann AA. NSC Research: Partnership with Rehab. HealthPartners Institute Investigators Meeting, Bloomington, MN. 2019.

Hussein, HM, Brown, MM, & **Herrmann AA.** A Travel Time and Efficiency Simulation for Patient Transport to Primary and Comprehensive Stroke Centers. American Academy of Neurology Annual Meeting, Philadelphia, PA. 2019.

Elangovan N, **Herrmann AA**, & Konczak, J. Measuring Proprioception: Comparison of Clinical Evaluation Methods to Psychophysical Thresholds. Center for Clinical Movement Science Colloquium Series, University of Minnesota – Twin Cities, Minneapolis, MN. 2012.

PROFESSIONAL MEMBERSHIPS

BMJ Case Reports Fellow	2022-Present
American Society of Neurorehabilitation	2021-Present
American Academy of Neurology	2019
American Society of Biomechanics	2014-2015
American Heart Association	2014-2015
Center for Clinical Movement Science, <i>University of Minnesota</i>	2010-2012
Society for Neuroscience	2009-2010

PROFESSIONAL DEVELOPMENT

Peer Reviewer, American Journal of Physical Medicine and Rehabilitation	2019-Present
Virtual NIH Grants Conference: Funding, Policies, and Processes	2023
NIH Virtual Seminar on Program Funding and Grants Administration	2021
University of Minnesota - Write Winning NIH Grants Annual Seminar	2019
South Carolina Clinical & Translational Research Institute Core Clinical Research Training Course	2017
National Institutes of Health Career Symposium (9 th Annual)	2016
Stanford Online – Stanford University Writing in the Sciences - Completed with Distinction	2016
Medical University of South Carolina Fellowship in Clinical and Translational Research Ethics	2015

CONFERENCES ATTENDED

American Society of Neurorehabilitation, <i>St. Louis, MO</i>	2022
American Society of Neurorehabilitation, <i>Virtual</i>	2021
American Society of Neurorehabilitation, <i>Chicago, IL</i>	2019
American Academy of Neurology, <i>Philadelphia, PA</i>	2019
American Society for Biomechanics Annual Meeting, <i>Rochester, MN</i>	2018
American Society of Neurorehabilitation Annual Meeting, <i>Chicago, IL</i>	2015
Annual Motor Control Summer School, <i>Antiochian Village, PA</i>	2015
Society for the Neural Control of Movement Satellite Meeting, <i>Charleston, SC</i>	2015
MUSC Frontiers in Neuroscience Annual Research Day, <i>Charleston, SC</i>	2015
American Society for Biomechanics Annual Meeting, <i>Boston, MA</i>	2014
Society for Neuroscience Annual Meeting, <i>Chicago, IL</i>	2009

CLINICAL EXPERIENCE

Rehabilitation Aide July 2011-July 2013
Fairview Health Services
Burnsville, MN

Administrative Assistant – Rehabilitation Department July 2012-July 2013
Fairview Ridges Hospital
Burnsville, MN

LEADERSHIP EXPERIENCE

Be Well Champion 2020-Present
HealthPartners/Regions Hospital, St. Paul, MN

Make it OK Ambassador, MakeltOK.org 2020-Present
HealthPartners/Regions Hospital, St. Paul, MN

Community Engagement Scholars Program 2008-2009
University of Minnesota - Twin Cities, Minneapolis, MN

MENTORSHIP EXPERIENCE

HealthPartners Neuroscience Research Summer Internship Program Leader 2022-Present
HealthPartners Neuroscience Center, St. Paul, MN

HealthPartners Neuroscience Research Summer Internship Program Mentor 2018-Present
HealthPartners Neuroscience Center, St. Paul, MN

University of Minnesota, Department of Rehabilitation Medicine DPT/PhD joint degree program, Research Specialty Experience Mentor 2022

American Society of Neurorehabilitation Virtual Mentorship Program Mentee 2022

SCHOLARSHIPS & AWARDS

National Institutes of Health Extramural Loan Repayment Program Award	2022
Salvatore Scaletta Education and Scholarship Fund Award	2016
Dean's Scholarship, Medical University of South Carolina	2013-2017
Undergraduate Research Opportunity Program Grant	2009
North Central States Regional Council of Carpenters Scholarship Award	2009

COMMUNITY SERVICE EXPERIENCE

Make-A-Wish Foundation of Minnesota <i>Minneapolis, MN</i>	2018-Present
Make-A-Wish Foundation of South Carolina <i>Charleston, SC</i>	2016-2017
Children's Museum of the Lowcountry <i>Charleston, SC</i>	2016-2017
St. Anne's Place <i>Minneapolis, MN</i>	2009
Hennepin County Medical Center <i>Minneapolis, MN</i>	2009
Shriner's Hospital for Children <i>Minneapolis, MN</i>	2009
Sister Kenny Sports and Physical Therapy <i>Minneapolis, MN</i>	2008
Ronald McDonald House <i>Minneapolis, MN</i>	2007-2009