## Overview

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<th>2019</th>
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<td>Books</td>
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<td>Book Chapters</td>
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<td>Peer Reviewed Publications</td>
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<td>Webinars</td>
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<tr>
<td>Grants submitted; total dollars requested</td>
<td>$6,133,363</td>
<td>$16,397,765</td>
<td>$17,431,912</td>
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<td>Funded grants; total costs</td>
<td>$1,878,990</td>
<td>$2,041,287</td>
<td>$2,063,371</td>
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**Peer Reviewed Publications**


Psychological Distress Among Construction Workers. *Journal of Occupational and Environmental Medicine, 63*(12).


Book Chapters


Conference Abstracts and Presentations


10. James K, Neogi T, Corrigan P, White D, LaValley M, Nevitt M, Torner JC, Lewis CE, Stefanik JJ. The relation of strength training participation to changes in physical function over 7 years: The MOST Study. *New England American College of Sports Medicine Fall Conference*, October 2021 (Oral Presentation-Winner of Doctoral Student Research Award as well as the President’s Cup).


Special Interest Group Educational program at APTA Combined Sections Meeting, Academy of Orthopaedic Physical Therapy, February 2021.


**Other Presentations**

1. Hasson CJ. “Let’s Discuss the Results: Cyberphysical Therapy Study”, *Tufts Medical Center Dissemination of Research Results Open House Event (virtual)*, June 24, 2021.


7. “Challenges and opportunities in designing tunable, soft mechanical sensors,” UMass Amherst Robotics Seminar Series – *Kristen Dorsey*

8. “It’s a bit of a stretch,” Engineering Department Seminar, Hope College – *Kristen Dorsey*

9. “Reconfigurable Sensing,” Expert Panelist, NSF-NIH Smart Health Principal Investigators meeting – *Kristen Dorsey*

10. “Challenges and opportunities in designing tunable, soft mechanical sensors,” Toyota Research Institute – *Kristen Dorsey*


13. “Challenges and opportunities in designing tunable, soft mechanical sensors,” Electrical and Computer Engineering Seminar, Northeastern University – *Kristen Dorsey*
https://www.axios.com/soft-robotics-engineering-save-lives-cecad1c2-860a-466b-be9d-573020831641.html – Kristen Dorsey

15. Donlan, P. – “Lymphedema: Facts and Challenges.” Presented to the Internet of Materials Group at Northeastern University. Presented a clinical perspective on the topic of lymphedema to a group of faculty engineers interested in innovations that can assist with detecting volumetric changes in limb volume. Presented as a collaborative effort with Kris Dorsey, PhD, of Northeastern University, who is working on developing volumetric sensors for lymphedema garments. December 7, 2021.


19. Falls Can Be Prevented: Steps to Minimize Risk Among Older Adults in the Homecare Setting. CMK Homecare GrandSolutions to Care; November 17, 2021. – Sheri Kiami

20. Evidence Based Physical Therapy Management of Parkinson’s Disease. Southcoast Health Hospital Systems; Charlton, MA; September 17, 2021. – Sheri Kiami


31. **Hayward L**, Al-Awadhi A, Freitas F. Student-Faculty Partnerships: Soliciting Diverse Student Voices for Strengthening Inclusive Curricula in Health Care Conference for Advancing Evidence-Based Learning CALTR Conference, May 4-5, 2021


34. **Hillman, C. H.** “Childhood physical activity and Brain Network Modularity”. Developmental Science and Neuroscience and Behavior Colloquia, Department of Psychology & Brain Sciences, University of Massachusetts Amherst, October 2021. *Virtual presentation due to Covid-19.*

35. **Hillman, C. H.** “Childhood physical activity effects on brain, cognition, and achievement”. Nutrition & Metabolism Program, School of Medicine, Boston University, Boston, MA, June 2021. *Virtual presentation due to Covid-19.*


41. **Dennerlein, J. T.** “Total Worker Health® Approaches: Building Organizational Resilience During the Time of COVID-19.” Education and Research Center Seminar, University of Cincinnati, ERC Seminar, 9 November 2021

42. **Dennerlein, J. T.** “Occupational Safety in Construction: The Association Of Worker Safety Climate With Organizational Safety Management Systems And Safety Incentives Programs.” Department of Environmental Health Seminar, University of Cincinnati, Ohio, 10 November 2021
Other Articles, Publications, or Presentations

Grants/Funding

NIOSH U19 – Jack Dennerlein
Title: Implementing an Integrated Approach: Weaving Employee Health, Safety, and Well-Being into the Fabric of Your Organization
PI: Sorensen G.
Role: Co-Investigator
OH008861 | $1,400,000 Total Cost per year | 2011-2026

MathWorks
Title: A Simulink-Based Myoelectrically-Driven Musculoskeletal Model for Experiential Learning and Research
PI: Christopher J. Hasson
Role: PI (Principal Investigator)
Direct: $24,804 | Duration: 5/1/20 - 4/30/21

NIH R01 (Research Project Grant) – Christopher J. Hasson
Title: Predictability in Complex Object Control
PI: Dagmar Sternad
Role: Co-Investigator
1R01HD087089-01 | Direct: $1,343,325; Total: $1,835,863 | Duration: 9/24/15 - 6/30/2022

Northeastern Research Vision 2025 – Christopher J. Hasson
Title: The Institute for Cognizant Robotics
PI: Taskin Padir
Role: Team Member
Total Cost: $10,000,000 | Duration: 2018 – 2023

Legler-Benbough Foundation
Title: Power of NeuroGaming Center @ Qualcomm Institute
PI: Leanne Chukoskie
Role: PI (Principal Investigator)
Total Cost: $250,000 | Duration: 7/17-8/21

NIH/NIA – Leanne Chukoskie
Title: Training Foundation Skills to Enhance Cognition in Older Adults
PI: Townsend
Role: Co-Investigator
Total Cost: $1,700,000 | Duration: 9/18-5/21

NSF: Future of Work at the Human-Technology Frontier
Title: Neurodiversity in tech: using interactive decision theory and augmented reality to enable employment for adults with ASD
PI: Leanne Chukoskie
Role: PI (Principal Investigator)
Total Cost: $2,586,000 | Duration: 10/19-9/22

Northeastern University Office of the Provost Full-time Faculty Development Fund (FFDF)
Title: Supervising Students who Identify as LGBTQ while in the Clinical Setting: A Simulation Based Training program for our Clinical Instructors
PI: Cesario C, Bangs D, Maxwell J.
Role: PI (Principal Investigator)
Total Cost: $7,500 | May 2020, deferred to 2021

Amazon Robotics
Title: Rapid and soft tactile sensors using conductive buckled beams
PI: Kristen Dorsey
Role: sole PI (Principal Investigator)
Total Cost: $250,000 | 12/21/21

National Science Foundation
Title: CAREER: Rigidity tuned elastomer origami tessellations for fast, reconfigurable, and soft mechanoreceptors
PI: Kristen Dorsey
Role: sole PI (Principal Investigator)
Total Cost: $500,404 | Duration: 2/19/19-1/31/24

Dassault Foundation
Title: Introducing modern simulation and modeling software alongside the Engineering Mechanics classroom
PI: Kristen Dorsey
Role: sole PI (Principal Investigator)
Total Cost: $26,568 | Duration: 7/1/20-6/30/21

Smith College
Jean Picker Faculty Fellowship
PI: Kristen Dorsey
Role: sole PI
Total Cost: $8,045 | Duration: 7/1/20-6/30/21

ADVANCE Faculty Development Office, Mutual Mentorship Award
Title: Developing a Clinical Faculty Scholars Program
PI: Jessica Maxwell
Role: PI  
Total: $3,000 | Spring 2021

Academy of Orthopaedic Therapy New Investigator Award – Joshua Stefanik  
Title: Influence of unilateral knee pain on contralateral knee loading: implications for the development of bilateral knee pain and osteoarthritis  
Role: Co-I, Primary Mentor (Corrigan, PI)  
Total costs: $30,000 | Duration: 12/1/21-11/30/23

NIH/NIAMS R03 AR077698  
Title: Anterior knee pain in older adults and the relation to future patellafemoral osteoarthritis  
PI: Joshua Stefanik  
Role: PI (Principal Investigator)  
Total costs: $172,910 | Duration: 9/1/21-8/31/23

Northeastern University Tier 1 Award  
Title: Changes in joint and muscle forces following treatment-induced gait alterations in adults with knee osteoarthritis  
PI: Joshua Stefanik  
Role: PI (Principal Investigator)  
Total costs: $50,000 | Duration: 8/1/21-11/1/22

American College of Sports Medicine Doctoral Student Research Grant – Joshua Stefanik  
Title: Effects of walking cadence on knee join loads, pain, and function  
Role: Primary Mentor (James, PI)  
Total costs: $4,995 | Duration: 7/1/21-9/30/22

NIH Loan Repayment Program – Joshua Stefanik  
Title: Reducing knee pain, impact loading, and contralateral disease in individuals with knee osteoarthritis: a biomechanical and epidemiological investigation  
Role: Primary Mentor (Corrigan, PI)  
Total costs: $131,000 | Duration: 9/1/20-8/31/22

NIH/NIAMS K23 AR070913  
Title: The relation of altered pain processing to impact loading and response to a gait retraining intervention in knee osteoarthritis  
PI: Joshua Stefanik  
Role: PI (Principal Investigator)  
Total costs: $766,500 | Duration: 7/11/17-5/30/22

Rheumatology Research Foundation – Joshua Stefanik  
Title: Graduate Student Preceptorship  
Role: Primary Mentor/Preceptor (Corey Lanois, PhD student, Preceptee)  
Total costs: $4,000 | Duration: 9/1/21-8/30/22

Rheumatology Research Foundation – Joshua Stefanik
Title: *Graduate Student Preceptorship*
Role: Primary Mentor/Preceptor (Khara James, PhD student, Preceptee)
Total costs: $4,000 | Duration: 6/1/20-5/31/21
The Wellesley Hill Junior Women's Club
Title: *TopSoccer and basketball program funding*
PI: **Hayward LM**
Role: PI (Principal Investigator)
Total costs: $1,000 | Duration: 1/2021

NU City and Community Service Grant Proposal
Title: *Improvement of the Adaptive Sports Program - NU Service-Learning Honors students partners with Community Stakeholders.*
PI: **Hayward L.**
Role: PI (Principal Investigator)
Total costs: $1,000 | Duration: 6/21

NIH, National Institute of Child Health and Human Development
Title: *Sympathetic nervous system mediation of acute exercise effects on childhood brain and cognition* (HD094054)
PI: **Charles Hillman**
Role: PI (Principal Investigator)
Total costs: $2,210,876 | Duration: 2018-2023

NIH, National Institute on Aging- **Charles Hillman**
Title: *Investigating Gains in Neurocognition in an Intervention Trial of Exercise* (R01AG053952)
PI: Kirk Erickson
Role: Co-I
Total costs: $21,899,529 | September 15, 2016 – December 31, 2022

NIH, National Institute on Aging- **Charles Hillman**
Title: *Investigating Gains in Neurocognition in an Intervention Trial of Exercise (PET Supplement)* (R01AG053952 Supplement),
PI: Kirk Erickson
Role: Site Co-PI
Total costs: $5,382,304 | September 1, 2019 – December 01, 2022

NIH, National Institute on Aging- **Charles Hillman**
Title: *Antioxidant Imaging Marker of Investigating Gains in Neurocognition in an Intervention Trial of Exercise (AIM-IGNITE)* (R01AG053952)
PI: Phil Lee
Role: Site PI
Total costs: $283,968 | April 15, 2019 – December 31, 2022
NIH, National Institute on Aging - Charles Hillman
Title: Changing and understanding motivation to increase physical activity among sedentary older adults (P30AG048785)
PI: Maiya Geddes
Role: co-investigator
Total costs: $129,421 | July 1, 2019 – June 30, 2021

NIH, National Institute on Aging- Charles Hillman
Title: An integrated two-way communication and near-real-time sensing system to detect and modify daily inactivity among adults over age 60 (P30AG048785)
PI: Dinesh John
Role: co-investigator
Total costs: $74,940 | June 1, 2020 – May 31, 2022

Northeastern University Tier I Mentorship Grant- Charles Hillman -, mentor/co-investigator
Title: Mentored Award: Physical frailty complicated with cognitive impairment in liver transplant recipients
PI: Dami Ko
Total costs: $45,650 | July 1, 2020 – September 30, 2021

NIH, National Institute on Aging- Charles Hillman
Title: Physical Activity and Dementia: Mechanisms of Action, (R35AG072307)
PI: Kirk Erickson
Role: co-I
Total costs: $171,228 | 2021-2024

NIH, National Institute of Child Health and Development- Charles Hillman
Title: Enhancing children’s cognitive function and achievement through carotenoid consumption (R01HD097332),
PI: Naiman Khan
Role: co-I
Total costs: $2,210,047 | Funded, 2022-2026

National Health and Medical Research Council- Charles Hillman
Title: Effectiveness and cost effectiveness of a time-efficient school-based physical activity intervention for older adolescents living with disability (NHMRC, APP2007095)
Lead Chief Investigator: David Lubans
Role: Chief Investigator
Total costs: $4741. | Funded, 2021-2024

Northeastern University 2021 Tier 1
Title: Extend and Learn: An exploratory pilot study using augmented reality in experiential medical education workforce training
Awards

1. Clinical Educator of the Year Award – Zachary Gabor 2021 Recipient
2. Faculty Excellence in Community Engagement Award – Chris Cesario 2021 Recipient
3. Faculty Innovation in Teaching Award – Kristen Morse 2021 recipient
4. Friend of the PTMRS Department Award – Hannah Poirier 2021 recipient
5. Part Time Faculty Award for Excellence in Teaching – Trevor Winnegge 2021 recipient
6. PTMRS Mary Lawson Everyday Excellence Award – Pam Sarraulte 2021 recipient
7. Dr. Martin Luther King, Jr. Fellowship, Massachusetts Institute Technology – Kristen Dorsey 2021-2022
8. Presidential Award for Mentoring, Smith College – Kristen Dorsey
10. Bouve College Excellence in Diversity and Inclusion Faculty Award – Sheri Kiami 2021 recipient
11. APTA of Massachusetts Clinical Research Award – Joshua Stefanik 2021 recipient
12. Special Recognition for Social Responsibility, APTA, CSM: “A Novel Assessment of Physical Therapy Student Confidence in Care of Adults with Intellectual Disabilities” – Diane Fitzpatrick
13. AIUM Sonographer/Sonography Student Professional Education and Growth Scholarship supported by the AIUM future fund Awarded $500 2021 (pending) – Alycia Markowski
14. Full-time Non Tenure-Track (FTNTT) Faculty Fellowship to pursue Registered Musculoskeletal Sonographer (RMSK) certification in diagnostic ultrasound imaging 2021-2022 – Alycia Markowski
15. AAOMPT Innovation Award. The Innovation Award is an individual award for an AAOMPT member whose achievements have promoted excellence through extraordinary innovation. American Academy of Orthopedic Manual Physical Therapy 2021 – Alycia Markowski
16. SHAPE America, RQES Distinguished Lecture- Charles Hillman
17. Japan Society for the Promotion of Science (JSPS) Invitational Fellowship for Research in Japan- Charles Hillman
18. Katherine McDonald was awarded a Society for Neuroscience Trainee Professional Development Award- Charles Hillman