

JENNY A. KENT

CURRICULUM VITAE

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ACADEMIC APPOINTMENTS

- University of Nevada Las Vegas, Las Vegas, NV. 2021 – present
Assistant Professor – Department of Physical Therapy
- University of Nebraska at Omaha, Omaha, NE. 2022 – present
Adjunct Assistant Professor – Department of Biomechanics
- Feinberg School of Medicine, Northwestern University, Chicago, IL. 2018 – 2021
Postdoctoral Fellow – Advanced Rehabilitation Research Training program
National Institute on Disability, Independent Living and Rehabilitation Research (90AR5031)
PI: Dr. Steven Gard, PhD.
Advisors: Dr. Matthew Major, PhD, Dr. Steven Gard, PhD.
- Postdoctoral Fellow - Northwestern University Prosthetics Orthotics Center**
Advisor: Dr. Matthew Major, PhD.
- University of Nebraska at Omaha, Omaha, NE. 2014 – 2018
Graduate Assistant – Department of Biomechanics
- Defence Medical Rehabilitation Center Headley Court, Epsom, Surrey, UK. 2006 – 2014
Higher Scientific Officer – Academic Department of Military Research
- University of Surrey, Guildford, Surrey, UK. 2006 – 2014
Visiting Fellow – Dept of Engineering and Physical Science
- Queen Mary’s Hospital, Roehampton, London, UK. 2003 – 2006
Trainee Clinical Scientist / Pre-Registrant Clinical Scientist - Douglas Bader Rehabilitation Centre

EDUCATION

- PhD, University of Nebraska at Omaha. 2014 – 2018
Exercise Science / Biomechanics - Department of Biomechanics, Omaha, NE.
Advisor: Dr. Nick Stergiou, PhD.
Committee: Dr. Thomas Buchanan, PhD, Dr. Mukul Mukherjee, PhD, Dr. Kota Takahashi, PhD.
Diss: “The implications of lower limb impediment for our ability to walk on uneven terrain.”

DMRC Headley Court, Epsom, Surrey / Queen Mary's Hospital, London, UK. 2006 – 2012

Certificate of Attainment in Medical Physics and Clinical Engineering – Assoc. of Clinical Scientists

Advisor: Dr. David Ewins, PhD.

Description: Supervised competence-based clinical and professional training under Consultant Clinical Scientist for accreditation as an allied healthcare professional, specializing in clinical movement analysis.

Queen Mary's Hospital, London / St George's Hospital, London, UK. 2003 – 2006

Postgraduate Diploma - Basic Training Scheme for Physical Scientists in Healthcare

Institute of Physics and Education in Medicine

Advisor: Dr. David Ewins, PhD, CEng.

Description: Practical competence-based training in Clinical Engineering within a hospital setting, in biomechanical evaluation, assistive technology, medical equipment design and physiological measurement.

University of Surrey, Guildford, Surrey, UK. 2003 – 2005

MSc Biomedical Engineering

Advisor: Dr. David Ewins, PhD, CEng.

Thesis: "The effect of functional electrical stimulation on gastrocnemius length of children with cerebral palsy."

University of Nottingham, Nottingham, UK. 1999 – 2002

BEng (Hons) Mechanical Engineering

CERTIFICATIONS

UK Health and Care Professions Council 2012 – present

Clinical Scientist

Registration no.: CS18310

UK Science Council 2012 – present

Chartered Scientist

Registration no.: PEM/108/000689

Certification as a Clinical Scientist required the demonstration of proficiency in clinical, scientific and professional competencies including: biomechanical testing, data reduction and management, quality assurance, clinical interpretation and reporting, communicating clinical recommendations with patients, caregivers and clinical team, laboratory and equipment management, good clinical practice and clinical and research ethics.

GRANT FUNDED ACTIVITY

Principal Investigator

University of Nevada Las Vegas Faculty Opportunity Award (2022-2023)

“Improving mobility in lower limb prosthesis users: an uneven terrain paradigm.” \$19,969

Co-Principal Investigator

American Orthotic and Prosthetic Association Pilot Grant (2019-2020)

“Vacuum Assisted Suspension: The effect of residuum-socket interface integrity on perception and control in individuals with a transtibial amputation.” \$14,993

Principal Investigator

University of Nebraska, Graduate Research and Creative Activity Grant (2018)

“The implications of lower limb impediment for our ability to walk on uneven terrain.” \$5,000

Primary grant author / Coordinator

National Institute of Child Health & Human Development R15HD086828-01 (2015-2017)

“Enhancing the prosthetic interface: 1/f vibrotactile socket stimulation to improve the adaptability of transtibial amputees” [PI: Dr. N Stergiou]. \$425,398

Principal Investigator

University of Nebraska at Omaha, University Committee on Research and Creative Activity Grant (2017)

“Can the presence of a 1/f structure in stride-to-stride variability enable us to withstand falls?” \$500

PEER REVIEWED PUBLICATIONS

1. **Kent JA**, Carnahan K, Major, MJ. Socket-residuum coupling integrity affects perception of external stimuli: Effects of altering the transtibial interface using vacuum-assisted suspension. *Prosthetics Orthotics International*. 2023, doi: 10.1097/PXR.0000000000000257
2. **Kent JA**. Biomechanically-consistent skin stretch as an intuitive mechanism for sensory feedback: a preliminary investigation in the lower limb. *Transactions on Haptics*. 2023;16(1): 101-111, doi: 10.1109/toh.2023.3238525.
3. Lee S-P, Farrouki S, **Kent JA**, Ciccotelli J, Chien L-C, Smith JA. Comparison of clinical and biomechanical characteristics between individuals with lower limb amputation with and without lower back pain: A systematic review and meta-analysis. *Clinical Biomechanics*. 2022;101;105860, doi: 10.1016/j.clinbiomech.2022.105860.
4. Prost V, Johnson WB, **Kent JA**, Major MJ, Winter AG. Systematic assessment of prosthesis stiffness on user biomechanics using the lower leg trajectory error framework and its implication for the design and evaluation of ankle-foot prostheses. *Journal of Biomechanical Engineering*.2023;145(4): 041002.
5. Prost V, Johnson WB, **Kent JA**, Major MJ, Winter AG. Biomechanical evaluation of prosthetic feet designed using the lower leg trajectory error framework. *Scientific Reports*. 2022; 12(1): 1-15.
6. Meade ZS, Likens AD, **Kent JA**, Takahashi KZ, Wurdeman SR, Jacobsen AL, Hernandez ME, Stergiou N. Subthreshold vibration influences standing balance but has unclear impact on somatosensation in persons with transtibial amputations. *Frontiers in Physiology*.2022;13, doi: 10.3389/fphys.2022.810079.
7. **Kent JA**, Carnahan KJ, Quinlan J, Stine R, Hansen AH, Russell Esposito E, Major MJ. Effects of footwear on the gait kinematics of women with unilateral transtibial amputation: an

observational case series. *Disability and Rehabilitation*. 2022; 1-8, doi: 10.1080/09638288.2021.2022782.

8. Raffalt PC, **Kent JA**, Stergiou N. Inter-limb coupling in individuals with transtibial amputation during bilateral stance is direction dependent. *Human Movement Science*. 2021;79:102861.
9. **Kent JA**, Arelekatti VNM, Petelina NT, Johnson WB, Brinkmann JT, Winter AG, Major MJ. Knee swing phase flexion resistance affects several key features of leg swing important to safe transfemoral prosthetic gait. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 2021;29: 965-973.
10. Ravi DK, Bartholet M, Skiadopoulou A, **Kent JA**, Wickstrom J, Taylor WR, Singh NB, Stergiou N. Quantification of resilience to perturbations during walking in humans: rhythmic auditory stimuli modulate movement recovery. *Journal of Experimental Biology*. 2021;225(5); jeb237073.
11. Likens AD, **Kent JA**, Sloan CI, Wurdeman SR, Stergiou N. Stochastic Resonance Reduces Sway and Gait Variability in Individuals with Unilateral Transtibial Amputation. *Frontiers in Physiology*. 2020;11;1305.
12. Raffalt PC, **Kent JA**, Wurdeman SR, Stergiou N. To walk or to run- a question of movement attractor stability. *Journal of Experimental Biology*. 2020;223(13). doi: 10.1242/jeb.224113.
13. **Kent JA**, Major MJ. Asymmetry of mass and motion affects the regulation of whole-body angular momentum in individuals with upper limb absence. *Clinical Biomechanics*. 2020; 105015.
14. **Kent JA**, Sommerfeld J, Stergiou N. Changes in human walking dynamics induced by uneven terrain are reduced with ongoing exposure, but a higher variability persists. *Scientific Reports*. 2019;9(1): 1-19.
15. **Kent JA**, Sommerfeld J, Mukherjee M, Takahashi K, Stergiou N. Locomotor patterns change over time during walking on an uneven surface. *Journal of Experimental Biology*. 2019;222(14). doi:10.1242/jeb.202093.
16. Raffalt PC, **Kent JA**, Wurdeman SR, Stergiou N. Selection Procedures for the Largest Lyapunov Exponent in Gait Biomechanics. *Annals of Biomedical Engineering*. 2019;1-11.
17. **Kent JA**, Sommerfeld J, Takahashi KZ, Stergiou N. Uneven terrain exacerbates the deficits of a passive prosthesis in the regulation of whole body angular momentum in individuals with a unilateral transtibial amputation. *Journal of NeuroEngineering and Rehabilitation*. 2019;16(1):25.
18. **Kent JA**, Stergiou N, Wurdeman SR. Dynamic balance changes within three weeks of fitting a new prosthetic foot component. *Gait and Posture*. 2017;58:23-29.
19. Chien JH, Mukherjee M, **Kent J**, Stergiou N. Mastoid vibration affects dynamic postural control during gait in healthy older adults. *Nature Scientific Reports*. 2017;7:41547.
20. Stergiou N, **Kent JA**, McGrath D. Human Movement Variability and Aging. *Kinesiology Review*. 2016; 5(1):15-22
21. **Kent JA**, Stergiou N, Wurdeman SR. Step activity and stride-to-stride fluctuations are negatively correlated in individuals with transtibial amputation. *Clinical Biomechanics*. 2015 Dec;30(10):1225-9.
22. **Kent JA**, Sherman KE. Intrinsic variability in the early unaided gait of bilateral C-leg® users. *Gait and Posture*. 2014;39:S82.
23. **Kent J**, Franklyn-Miller A. Biomechanical models in the study of lower limb amputee kinematics: a review. *Prosthetics and Orthotics International*. 2011;35(2):124-139.
24. Collins TD, Ghousayni SN, Ewins DJ, **Kent JA**. A six degrees-of-freedom marker set for gait analysis: repeatability and comparison with a modified Helen Hayes set. *Gait and Posture*. 2009 Aug;30(2):173-80.

PRESENTATIONS

Conference Presentations

1. **Kent JA.** A biomechanically-consistent sensory supplementation technique: rudimentary proof of concept study. *Poster presentation. American Academy of Orthotists and Prosthetists Annual Meeting*, Nashville, TN. March 2023.
2. **Kent JA,** Carnahan KJ, Severe C, Moore BS, Bommareddy SS, Major MJ. Improving socket-limb coupling may have sensory and control benefits: results of a pilot study. *Oral presentation. American Academy of Orthotists and Prosthetists Annual Meeting*, Atlanta, GA. March 2022.
3. **Kent JA,** Arelekatti VNM, Petelina NT, Johnson WB, Brinkmann JT, Winter AG, Major MJ. Knee flexion damping affects several key features of the prosthetic limb swing phase. *Oral presentation. American Academy of Orthotists and Prosthetists Annual Meeting*, [online]. May 2021.
4. **Kent JA,** Quinlan, J, Carnahan K, Wolin B, Bommareddy S, Major, MJ. The effect of residuum-socket interface integrity on perception and control in individuals with a transtibial amputation. *Oral presentation. AOPA National Assembly*, [online]. September 2020.
5. **Kent JA,** Arelekatti VNM, Petelina NT, Johnson WB, Brinkmann JT, Winter AG, Major MJ. Knee flexion damping affects several key features of the prosthetic limb swing phase. *Poster presentation. 44th American Society of Biomechanics Annual Meeting*, [online]. August 2020.
6. **Kent JA,** Major MJ. Locomotor stability with upper-limb absence: A momentum analysis. *Oral presentation. American Academy of Orthotists and Prosthetists Annual Meeting*, Chicago, IL. March 2020.
7. **Kent JA,** Major MJ. The effect of upper limb loss on the momentum balance during walking: An exploration of why people with upper limb absence may fall more. *Oral presentation. Midwest Chapter of the American Academy of Orthotists and Prosthetists Annual Meeting*, Lake Geneva, WI. September 2019.
8. **Kent JA,** Arelekatti VM, Petelina NT, Johnson BJ, Winter AG, Major M. The effect of prosthetic knee resistance on gait dynamics. *Poster presentation. 15th Annual Lewis Landsberg Research Day*, Chicago, IL. April 2019.
9. **Kent JA,** Takahashi KZ, Stergiou N. Do people with a transtibial amputation have a rougher ride on uneven terrain? *Poster presentation. 42nd annual meeting of the American Society of Biomechanics*, Rochester, MN. August 2018.
10. **Kent JA,** Takahashi KZ, Stergiou N. Stability margins are altered on uneven terrain in individuals with a unilateral transtibial amputation. *Poster presentation. 3rd Human Movement Variability Conference*, Omaha, NE. May 2018.
11. **Kent JA,** Takahashi KZ, Stergiou N. Uneven terrain treadmill for assessment of prosthetic gait: Feasibility and preliminary results. *Oral presentation. Gait and Clinical Movement Analysis Society Annual Meeting*, Indianapolis, IN. May 2018.
12. **Kent JA,** Takahashi KZ, Marmelat V, Stergiou N. Velocity-based control of postural sway in people with a unilateral transtibial amputation. *Poster presentation. 41st annual meeting of the American Society of Biomechanics*, Boulder, CO. August 2017.
13. **Kent JA,** Takahashi KZ, Meade Z, Ouattas A, Wurdeman SR, Stergiou N. Sub-threshold vibration for the enhancement of sensation and function in transtibial amputees: Preliminary results. *Poster presentation. Gait and Clinical Movement Analysis Society Annual Meeting*, Salt Lake City, UT. May 2017.
14. **Kent JA,** Takahashi KZ, Marmelat V, Stergiou N. Postural control mechanisms may be preserved despite sensory deficits following unilateral transtibial amputation. *Oral presentation.*

International Student Research Forum, University of Nebraska Medical Center, Omaha, NE. June 2017.

15. **Kent JA**, Takahashi KZ, Marmelat V, Stergiou N. Postural control mechanisms may be preserved despite sensory deficits following unilateral transtibial amputation. *Poster presentation. International Student Research Forum, University of Nebraska Medical Center, Omaha, NE. June 2017.*
16. **Kent JA**, Stergiou N, Wurdeman SR. Strategies to adapt speed differ depending on self-rated ambulatory function in individuals with a transtibial amputation. *Poster presentation. 2nd Human Movement Variability Conference. Omaha, NE. June 2017.*
17. **Kent JA**, Stergiou N, Wurdeman SR. Step activity and stride-to-stride fluctuations are negatively correlated in individuals with transtibial amputation. *Oral presentation. Xi'an Jiaotong University Health Science Center, Xi'an, China. June 2016.*
18. **Kent JA**, Stergiou N, Wurdeman SR. Step activity and stride-to-stride fluctuations are negatively correlated in individuals with transtibial amputation. *Oral presentation. International Student Research Forum, University of China Academy of Sciences, Beijing, China. June 2016.*
19. **Kent JA**, Papachatzis N, Vanderheyden T, Stergiou N & Takahashi KZ. Delivery of vibration to the residual limb via the prosthetic socket: preliminary investigation of signal integrity. *Oral presentation. Regional American Society of Biomechanics meeting, Estes Park, CO. April 2016.*
20. **Kent JA**, Stergiou N, Wurdeman SR. Does dynamic balance of transtibial amputees change after a three week adaptation period on a new prosthetic foot? *Thematic poster presentation. 39th annual meeting of the American Society of Biomechanics. Columbus, OH. August 2015.*
21. **Kent J**, Sherman K. Intrinsic variability in the early unaided gait of bilateral C-Leg® users. *Oral presentation. 22nd Annual Meeting of ESMAC. Glasgow, Scotland. September 2013.*
22. **Kent J**, Franklyn-Miller A. Optoelectronic motion capture in a young, active, traumatic amputee population – Is there an appropriate marker set for lower-limb amputees? *Poster presentation. UKSEM. London, UK. November 2010.*

Invited Presentations

1. **Kent J**. Models for prosthetics. The next generation of Clinical Movement Analysis Models. Seminar organised by the Clinical Movement Analysis Society of the UK and Ireland. Keele, England. June 2014.
2. **Kent J**. Prosthetic analysis in military rehabilitation: Development of techniques to aid decision-making. *22nd Annual Meeting of ESMAC. Glasgow, Scotland. September 2013.*
3. **Kent J**. Movement analysis with amputees: Early experiences in a new military movement laboratory. *7th UK & RI PGR Conference in Biomedical Engineering and Medical Physics. Guildford, England. July 2013.*
4. **Kent J**, Roberts A. Military Performance Analysis & Research Laboratory: Development and early research. *C-motion User Group Meeting. Glasgow, Scotland. April 2013.*

Conference Abstracts

1. Likens AD, Mastorakis S, Skiadopoulou A, **Kent JA**, Azad MWA, Stergiou N. Irregular Metronomes as Assistive Devices to Promote Healthy Gait Patterns. *18th IEEE Annual Consumer Communications & Networking Conference*, [online]. January 2021. Best paper award.
2. Prost V, Johnson WB, **Kent JA**, Major MJ, Winter AG. Experimental investigation of the lower leg trajectory error metric: Implications for the design of ankle-foot prostheses. *5th Annual Dynamic Walking Conference*, [online]. May 2020.

3. Prost V, Johnson WB, **Kent JA**, Major MJ, Winter AG. Design and clinical testing of passive prosthetic feet optimized using the lower leg trajectory error metric. *14th Annual Dynamic Walking Conference*, Calgary, Canada. June 2019.
4. Prost V, Johnson WB, **Kent JA**, Major MJ, Winter AG. Design and testing of passive prosthetic feet optimized using the lower leg trajectory error metric. *ISPO 17th World Congress*, Kobe, Japan. October 2019.
5. **Kent JA**, Stergiou N, Wurdeman SR. Does dynamic balance of transtibial amputees change after a three week adaptation period on a new prosthetic foot? *American Academy of Orthotists & Prosthetists, 42nd Academy Annual Meeting & Scientific Symposium*, March 2016.
6. **Kent JA**, Stergiou N, Wurdeman SR. Strategies to adapt speed differ depending on self-rated ambulatory function. *American Academy of Orthotists & Prosthetists, 42nd Academy Annual Meeting & Scientific Symposium*, March 2016.
7. Mattes K, **Kent JA**, Nicholas Stergiou N, Takahashi KT. Comparison of Wii balance board and laboratory grade force plate for the measurement of sway during standing. *Poster presentation. Regional American Society of Biomechanics meeting*, Estes Park, CO. April 2016.
8. **Kent J**, Wills A, Etherington J, Ewins D, Ghousayni S. Development of a method to quantify patellofemoral tracking. *Poster presentation. 16th Annual Meeting of the European Society of Movement Analysis for Adults and Children*. Athens, Greece. September 2007.

Other

Kent JA. Prosthetic vs. Sound – What are we measuring? 2020: Infographic. Available at: [https://www.researchgate.net/publication/340449247 Prosthetic Vs Sound - What Are We Measuring](https://www.researchgate.net/publication/340449247_Prosthetic_Vs_Sound_-_What_Are_We_Measuring)

AWARDS AND HONORS

- Distinguished Promising Professional Award - College of Education, Health and Human Services, University of Nebraska at Omaha – April 2022.
- Outstanding Poster Presentation – Human Movement Variability Conference, University of Nebraska at Omaha, May 2018.
- Outstanding Graduate Student Research Assistant – Division of Biomechanics and Research Development, University of Nebraska at Omaha, 2018.
- University of Nebraska Presidential Fellowship – 2017 Doctoral recipient.
- Student Travel Award – Gait and Clinical Movement Analysis Society, 2017 and 2018.
- Student Travel Award – American Society of Biomechanics, 2016.
- Graduate Travel Award – University of Nebraska at Omaha, 2015 and 2017.
- Represented University of Nebraska at Omaha at the International Student Research Forum, China, 2016.
- Graduate Student of the Year – Biomechanics Research Building, University of Nebraska at Omaha, 2015.

TEACHING

University of Nevada Las Vegas, Las Vegas, NE.

2021 – present

Instructor – Department of Physical Therapy

DPT790 – Clinical Research Methods in Physical Therapy

DPT798 – Directed Research

University of Nebraska at Omaha, Omaha, NE. 2016 – 2018

Teaching assistant – Department of Biomechanics (Summer 2017)

BMCH4630 – Biomechanics

Instructor: Dr. Jorge Zuniga, PhD.

DMRC Headley Court, Epsom, Surrey, UK. 2006 – 2014

In-service training delivery - Academic Department of Military Research

Conducted training activities for clinical team of physical therapists, podiatrists, prosthetists and consultant physicians on use of laboratory equipment and interpretation of biomechanical data. Advised the clinical team on scientific methods and research ethics.

MENTORSHIP

University of Nevada Las Vegas, Las Vegas, NV. 2021 – present

Doctoral Committees

Katherine Bricarell, Interdisciplinary Health Sciences PhD, University of Nevada, Las Vegas
(Committee Co-chair, 2023 – present)

Zane Burnett, Medical Physics DMP, University of Nevada, Las Vegas (Graduate College
Representative, 2023 – present)

Dayanara Lopez, Anthropology, University of Nevada, Las Vegas (Graduate College
Representative, 2023 – present)

Doctor of Physical Therapy project advisor – Department of Physical Therapy

Uneven terrain locomotor training for individuals with lower limb amputation (4 students; 2023 – present)

Feasibility and acceptability of tap dance as a therapeutic intervention for adults with lower limb amputation: a pilot study (4 students; 2022 – present)

Surface discrimination in people with transtibial amputation (8 students; 2021 – present)

Effects of attentional focus and feedback mode on balance performance and learning in people with chronic diabetes (co-mentor, 4 students; 2021 – present)

Undergraduate mentor

Rosario Martinez BS Kinesiology (Fall 2023 – present)

Melissa Samaniego BS Kinesiology (Fall 2023 – present)

Evelyn Airam BS Kinesiology (Spring 2022)

Chelsea Domingo BS Kinesiology (Spring 2022 – Spring 2023)

Emmanuel Dollega BS Kinesiology (Fall 2022 – Spring 2023)

Northwestern University, Chicago, IL. 2018 – 2021

Training and mentoring - Northwestern University Prosthetics Orthotics Center

Training and mentoring of project team of MS students and undergraduates

Clare Severe MS Biomedical Engineering (2019 – 2021)

Brianna Wolin MPO (2019 – 2021)

Sailaja Bommareddy Major: Biomedical Engineering (2019 – present)
Camille Guzman Major: Biomedical Engineering (2019 – 2020)
Bradley Moore MS Biomedical Engineering (2021)
Abby Renaud Major: Biomedical Engineering (2021)

University of Nebraska at Omaha, Omaha, NE.

2016 – 2018

Undergraduate Mentoring – Department of Biomechanics

Zachary Meade Major: Electrical Engineering
Aaron Robinson Major: Exercise Science
Charles Sloan Major: Biomechanics
TeSean Wooden Major: Exercise Science

PROFESSIONAL DEVELOPMENT ACTIVITIES

Leadership Training

Leadership Certificate

School of Professional Studies, Northwestern University
Virtual (Fall 2019 – Spring 2020)

Pedagogical Training

Equity Institute

The Faculty Center/Office of Online Education, University of Nevada, Las Vegas
Online, cohort-based course (Fall 2021)

Foundations in Accessibility

Office of Accessibility, University of Nevada Las Vegas
Virtual (Fall 2021)

An Introduction to Evidence-Based Undergraduate STEM Teaching

Center for the Integration of Research Teaching and Learning, Northwestern University
Online course – MOOC format (Fall 2019)

A Seat at the Table: Centering Diversity, Equity, and Inclusion in Learning and Teaching

Searle Center for Advancing Learning and Teaching, Northwestern University
Roundtable series (Summer 2020)

SERVICE

Peer review

2011 – present

Journals

Prosthetics and Orthotics International, Transactions in Neural Systems and Rehabilitation Engineering, Archives of Physical Medicine and Rehabilitation, Journal of Applied Biomechanics, Clinical Biomechanics, Gait and Posture, Journal of Prosthetics and Orthotics, Journal of Biomechanics, Neuromorphic Computing and Engineering, PLOS-One, Journal of Rehabilitation and Assistive Technologies Engineering.

Conference abstracts

Gait and Clinical Movement Analysis Society Annual Conference, Human Movement Variability Conference, American Society of Biomechanics Annual Meeting. IEEE Engineering in Medicine & Biology Society Annual Conference, North American Congress on Biomechanics.

Grant panels/review

NIH Sensory and Motor Neuroscience review panel (ad-hoc Early Career Reviewer, 2023).
American Orthotic and Prosthetic Association (AOPA) - Center for Orthotic and Prosthetic Learning and Outcomes/Evidence-Based Practice grant (COPL) (Reviewer, 2022).
Orthotic and Prosthetic Education and Research Foundation (Reviewer, 2021-2023).
National Science Foundation (Panel, 2022).

Committee membership

Gait and Clinical Movement Analysis Society

Student representative (2016 – 2018)

IPEM Rehabilitation Engineering and Biomechanics Special Interest Group

Committee Member (2012 – 2014)

Planning Committee - *Capability After Limb Loss: the challenges of measuring and mastering movement with an artificial limb*. Birmingham, UK. September 2013.

University of Nevada, Las Vegas, Las Vegas, NV.

2021 – present

University Service Activities

Judge – Graduate and Professional Student Research Forum (2022), Rebel Gradslam (2022)
Internal grant reviewer (2023)

Feinberg School of Medicine, Northwestern University, Chicago, IL.

2018 – 2021

Northwestern University Prosthetics-Orthotics Center

Bi-weekly journal club organizer

Biotechnology program assistant - National Student Leadership Conference, July 2019

University of Nebraska at Omaha, Omaha, NE.

2016 - 2018

Hiring committee - Department of Biomechanics

Associate/Full Professor recruitment, June 2018

Volunteer for High school STEM Outreach - Department of Biomechanics

International Biomechanics Day, April 2018

Eureka! STEM Camp, June 2018

“Girls Inc”, 2016

Community outreach volunteer assistant - Department of Biomechanics

Opera Outdoors, September 2016.

Omaha Rodeo, September 2016.

University of Nebraska Foundation Gala, October 2014.

Queen Mary’s Hospital, London

2011 – 2014

Local Auditor - Douglas Bader Rehabilitation Centre

MEMBERSHIPS AND AFFILIATIONS

Affiliate Member – American Academy of Orthotists and Prosthetists	2021 – present
Faculty Partner – American Physical Therapy Association	2022 – present
Member – American Society of Biomechanics	2020 – present
Member – International Womxn in Biomechanics Society	2020 – present
Full member – Institute of Physics and Engineering in Medicine (MIPeM)	2012 – present
Student Member – American Society of Biomechanics	2015 – 2018
Trainee Member – Clinical Movement Analysis Society of the UK and Ireland	2004 – 2014
Associate Member – Institute of Physics and Engineering in Medicine	2003 – 2012
Affiliate Member – Institution of Mechanical Engineers	1998 – 2002

OTHER

Other affiliations

Without compensation (WOC) research appointments

Jesse Brown VA Medical Center, Chicago, IL. (2019-present)

VA Nebraska-Western Iowa, Omaha, NE. (2015 – 2018)

Software & Systems Skills

Motion analysis/Biomechanics:

Software: Visual 3D (C-motion, Inc.; advanced), Cortex (Motion Analysis Corp.; advanced), Nexus (Vicon Motion Systems), Qualisys Track Manager (Qualisys AB), Cuefors (Motek Forcelink), D-flow (Motek Forcelink)

Systems: Motion capture - Motion Analysis Corporation, Vicon, Qualisys; Delsys Trigno EMG; Motek C-Mill; Biodex Balance Master; XSens MTw Awinda; Cortex Metamax 3B.

Generic/Statistical:

MATLAB (The MathWorks); Lua (PUC-Rio); SPSS (IBM).

Other accreditations

Research, Ethics, and Compliance Training (CITI training); IR(ME)R Operator Certificate for DXA scanning; Single channel exercise stimulation and functional electrical stimulation (Salisbury UK training course). Leadership Certificate (Northwestern University School of Professional Studies).