

KHARMA C. FOUCHER, MD, PhD

Associate Dean for Research

College of Applied Health Sciences
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ADMINISTRATIVE APPOINTMENTS

2023-Present

Associate Dean for Research

College of Applied Health Sciences, University of Illinois Chicago

Facilitate and promote research and scholarship throughout the range of academic disciplines found in the College of Applied Health Sciences. Oversee the college research grant and contract proposal process. Supervise administrative, statistical, and regulatory support staff. Works with investigators from undergraduates through senior faculty to identify funding opportunities and support ongoing development of grant writing skills. Establish venues for showcasing and celebrating the research, scholarship, and creative activity of the College of Applied Health Sciences. Represent the college on the UIC Research Space Subcommittee and other relevant committees.

2022-Present

Director of Education and Professional Development Core

Center for Clinical and Translational Science, University of Illinois Chicago

Develop and coordinate training and mentoring activities for research professionals (e.g. clinical research coordinators) and investigators at all career levels engaged in clinical or translational research. Engages in center-specific service such as DEIA Working Group, KL2 Executive Committee, and pilot grant review. Key accomplishments: Redesigned professional development programming for investigators. Expanded support for junior investigators transitioning to first independent funding proposals. Created and/or expanded clinical research skills training for investigators and research coordinators. Contributed to the development of novel mentoring programs for research nurses and clinical research coordinators.

2020-2022

Associate Director of Education and Professional Development Core

Center for Clinical and Translational Science, University of Illinois Chicago

Developed, coordinated, or directly provided training and mentoring activities for junior faculty and postdoctoral fellows. Examples include Writing Accountability Groups and Small Group Grant Coaching. Reviewed pilot grant proposals and KL2 applications.

FACULTY APPOINTMENTS

2020-Present

Associate Professor with Tenure

Department of Kinesiology and Nutrition
University of Illinois Chicago

2022-Present

Adjunct Associate Professor

Department of Physical Therapy
University of Illinois Chicago.

- 2020-Present **Adjunct Associate Professor**
Department of Bioengineering
University of Illinois Chicago
- 2013-2020 **Assistant Professor**
Department of Kinesiology and Nutrition
University of Illinois Chicago
- 2011-2020 **Adjunct Assistant Professor**
Department of Bioengineering
University of Illinois Chicago
- 2009-2013 **Assistant Professor**
Department of Orthopedic Surgery
Rush University, Chicago, Illinois
- 2005-2009 **Instructor**
Department of Orthopedic Surgery
Rush University, Chicago, Illinois

OTHER ROLES

- 2010-2013 **Co-director**, Joan and Paul Rubschlager Motion Analysis Laboratory
Department of Orthopedic Surgery, Rush University
Provided scientific and technical guidance for investigators using motion analysis services. Oversaw all testing activities and ensured data quality and integrity. Supervised medical student projects. Supervised lab manager and technicians.
- 2005-2009 **Laboratory Manager**, Motion Analysis Laboratory
Department of Orthopedic Surgery, Rush University
Responsible for collecting and processing motion analysis data for studies funded by the NIH, industry, and institutional sources. Maintained IRB protocols. Conducted short-term industry projects and occasional clinical testing. Coordinated training and supervised projects for medical and undergraduate students. Supervised technicians, and undergraduate interns. Assisted with planning and equipping new laboratory.

EDUCATION

- 2008 **MD** University of Illinois Chicago
- 2006 **PhD** Department of Bioengineering, University of Illinois Chicago
- 1996 **SB** Engineering Sciences (Biomedical), Harvard University

OTHER TRAINING AND PROFESSIONAL DEVELOPMENT

- 2023 Participant, Strategies for Leading Successful Change Initiatives: Mastery Session, Harvard Division of Continuing Education
- 2022-2023 Scholar, Transforming Biomedical Research and Academic Faculty through Leadership Opportunities, Training and Mentorship (TRANSFORM) Program

RESEARCH

SUMMARY OF RESEARCH ACTIVITIES

Our research mission is to reduce the burden of osteoarthritis-related disability through innovative biomechanics and outcomes research using a person-centered approach. Outcomes of particular interest currently include perceived and performance-based function, physical activity, and falls in people with hip or knee osteoarthritis or joint replacements. Our long-term goal is to create biomechanically-based tools and interventions that eliminate racial/ethnic disparities in musculoskeletal health care.

HONORS, AWARDS, AND OTHER RECOGNITION

- 2021 Orthopaedic Research Society Adele L. Boskey, PhD Award
This award recognizes a mid-career member of the ORS for outstanding and sustained commitment to mentorship as well as a demonstrated track-record of an upward trajectory and impactful research program.
- 2021 Finalist, Orthopaedic Research Society William H. Harris MD Award
- 2016 Excellence in Clinical Science Award from Journal of Orthopaedic Research
- 2015 Featured article, Journal of Orthopaedic Research
Virtual Special Issue: Total Joint Arthroplasty.
Compiling “the best recently published manuscripts in the fields of biomechanics, biomaterials, biology and clinical science relevant to joint replacement.”
- 2014 Best in Class Poster Award
Association of American Medical Colleges
Group on Faculty Affairs Annual Meeting
Authors: **Foucher KC**, Skarupski KA
- 2011 Mentee of the Year, Rush Research Mentoring Program
- 2011 Award Recipient, Rush Research Mentoring Program Abstract Competition
Rush Research Forum
- 2011 Finalist, New Investigator Recognition Award, Orthopaedic Research Society
- 2010 Finalist, Rush Research Mentoring Program Abstract Competition
Rush Research Forum
- 1999 Musculoskeletal Research Center of the University of Pittsburgh Medical Center Award, Annual Meeting of the American Society of Biomechanics
- 1999 Best Oral Presentation, MD/PhD Student Research Symposium
University of Illinois Chicago

AWARDS RECEIVED BY TRAINEES

- 2021 Burcu Aydemir, Medical/Graduate Student Achievement Award
Rheumatology Research Foundation
- 2017 Chun-Hao Huang, 1st Place, Student Research Forum
University of Illinois Chicago
- 2016 J. Heather Brunner, Student Achievement Award
Rheumatology Research Foundation

- 2012 Samir Chabra, Medical/Graduate Student Achievement Award
American College of Rheumatology Research and Education Foundation/Abbott
- 2011 Bryan Schlink, 3rd place, Student Research Forum
University of Illinois Chicago

OTHER CO-AUTHORED AWARDS

- 2013 Best in Class Poster Award
Association of Association of American Medical Colleges
Group on Faculty Affairs Annual Meeting
Authors: Lundberg HJ, **Foucher KC**, Skarupski KA.

MEDIA

- 2022 Orthopaedic Research Society Member Spotlight
- 2021 Biomechanics On Our Minds Podcast, April 2021
- 2017 Helio Rheumatology Article re Sex-specific THR outcomes
- 2016 Pain Week article re Sex-specific THR outcomes
- 2016 American College of Rheumatology/Association of Rheumatology Health Professionals Press Conference
- 2016 Chicago Tai Chi – Interview and conversation on the role of exercise in OA development and progression
- 2012 Interviewed for WGN News Health Segment, December 19, 2012
- 2012 Featured on WBEZ science segment "Clever Apes", May 12, 2012

INVITED PRESENTATIONS

- 8/25/2022 Keynote Speaker
North American Congress on Biomechanics, Ottawa, ON, CA

Research Presentations:

- 4/25/2023 Visiting Professorship Seminar Series, University of Pennsylvania, Penn Center for Musculoskeletal Disorders, Philadelphia, PA
- 4/8/2023 Core Center for Clinical Research Speaker Series
University of North Carolina, Thurston Arthritis Research Center
- 11/15/2022 William F Neuman Visiting Scientist Seminar Series, University of Rochester Medical Center, Rochester, NY
- 8/8/2022 Invited Speaker, Gordon Research Conference, Musculoskeletal Biology and Bioengineering, Proctor Academy, Andover, NH
- 2/28/2022 Rush University, JOINT Seminar Series
- 12/9/2021 Harvard University, Topics in Bioengineering Seminar Series
- 11/10/2021 University of Illinois Chicago, Kinesiology and Nutrition Seminar Series
- 11/1/2021 University of Florida, Biomedical Engineering Seminar Series
- 10/27/2021 Louisiana State University, Health Sciences Journal Club
- 4/16/2021 2021 Joint Crosstalk Symposium
- 3/29/2021 La Jolla Arthritis Conference

10/22/2020 Louisiana State University, School of Veterinary Medicine Seminar Series
8/9-8/14/2020 Invited Speaker, Gordon Research Conference, Musculoskeletal Biology and Bioengineering (Cancelled due to COVID-19)
2/12/2020 Harvard University, Cambridge MA
11/6/2019 University of Illinois Chicago, Applied Health Sciences Research Day
11/29/2018 University of Melbourne, Victoria, Australia
11/8/2018 University of Florida, Applied Physiology and Kinesiology Seminar Series, Gainesville, FL
11/2/2018 University of Nebraska Omaha, Department of Biomechanics Seminar Series
8/21/2017 Shirley Ryan Ability Lab, Summer Seminar Series, Chicago IL
6/16/2016 US Bone and Joint Initiative Board of Directors Meeting, Chicago, IL.
5/9/2012 Invited Faculty, American Association of Orthopaedic Surgeons/Orthopaedic Research Society Femoroacetabular Impingement Research Symposium, Chicago, Illinois.

Faculty Development Presentations:

2/15/2024 American Physical Therapy Association, Combined Sections Meeting, The NIH Scientific Grant Review Process: Experiencing a Mock Study Section, Boston, MA
2/25/2023 American Physical Therapy Association, Combined Sections Meeting, The NIH Scientific Grant Review Process: Experiencing a Mock Study Section, San Diego, CA
5/31/2022 American Society of Biomechanics, Early Career Faculty NIH Panel Discussion
3/16/2022 University of Illinois Chicago, College of Nursing Planning Workshop
12/7/2021 University of Illinois Chicago, College of Nursing
Department of Human Development Nursing Science – Planning Workshop
7/19/2021 University of Illinois Chicago, Center for Clinical and Translational Science Short Course in Clinical and Translational Research – What it means to be a PI
5/27/2021 University of Illinois Chicago, College of Medicine – Rockford Campus
4/29/2021 University of Illinois Chicago, College of Nursing Writing Retreat Speaker
1/24/2020 University of Illinois Chicago, Center for Clinical and Translational Science Professional Development Workshop – Writing Accountability Groups
10/2/2019 University of Illinois Chicago, Center for Clinical and Translational Science Professional Development Workshop – Writing Accountability Groups
9/24/2013 Johns Hopkins School of Medicine Office of Faculty Development Seminar, Baltimore, Maryland – Writing Accountability Groups
12/2011 Rush University, College of Health Sciences Research Retreat. Hosted roundtable on writing productivity

Other panels or conferences:

8/3-8/4/2024 Invited Mentor, 2024 Gordon Research Seminar on Musculoskeletal Biology and Bioengineering
11/17/2023 Invited Participant, Journal of Bone and Joint Surgery Sex and Gender Reporting in Musculoskeletal Research Symposium

7/10-7/14/2022	Session Co-Chair/Moderator Locomotion & Biomechanics - Osteoarthritis and Orthopaedic Conditions, World Congress of Biomechanics, Taipei, Taiwan
9/20-9/21/2021	Moderator, Causes & Consequences of Age-Related Changes in Gait Biomechanics workshop, National Institute on Aging, Division of Geriatrics and Clinical Gerontology
11/6/2020	Invited Panelist, Philadelphia Spine Research Society (PSRS) Symposium, COVID-19 Challenges and Equity/Diversity in Spine Research
2/11/2020	Invited Panelist, School of Engineering and Applied Sciences Sophomore Convocation, Harvard University
05/2010	Panelist, "Going Weak in the Knees – when Arthritis Strikes" Rush University, Department of Orthopedic Surgery Educational Event- Rush Rounds

RESEARCH FUNDING

Current:

7/1/23-6/20/27	Co-Investigator (Principal Investigator Lindsay Slater) US Department of Defense <u>Title</u> : Improving Mobility and Function Following Transfemoral Amputation: A Novel Approach to Reverse Volumetric Muscle Loss \$1,499,729 total costs
9/1/22-6/30/27	Principal Investigator NIH/NIA R01 AG075098 <u>Title</u> : Preoperative perturbation training to prevent falls after total knee arthroplasty \$2,818,829 total costs

Completed:

6/1/21-6/30/22	Co-Investigator (Principal Investigator Lindsay Slater) UIC Applied Health Sciences Interdisciplinary Pilot Grant <u>Title</u> : A novel approach to treat knee osteoarthritis in patients with and without history of lower limb amputation \$29,760 direct costs
11/16/18 – 6/30/21	Principal Investigator University of Illinois Chicago Center for Clinical and Translational Science Pilot Grant <u>Title</u> : Impact of obesity, fatigue, and strength on physical activity in people with knee OA \$60,000 direct costs
5/1/16 – 4/30/20	Principal Investigator NIH/NIA R21 AG052111 <u>Title</u> : Impact of osteoarthritis-related gait impairment on energy, fatigue, and physical activity \$428,228 total costs

6/1/18 – 8/31/19	Principal Investigator UIC Applied Health Sciences Interdisciplinary Pilot Grant <u>Title</u> : Predicting mechanical and clinical outcomes of total hip arthroplasty \$19,329 direct costs
3/1/15 – 6/30/16	Principal Investigator University of Illinois Chicago Campus Research Board <u>Title</u> : Understanding and improving gait mechanics and functional outcomes after total hip replacement \$19,898
7/1/12 – 6/30/13	Principal Investigator Private Donation <u>Title</u> : Establishing a model of early stage hip OA – femoroacetabular impingement \$140,000
12/1/12 – 6/30/13	Principal Investigator Rush Research Mentoring Program Young Investigator Fund Grant <u>Title</u> : Neuromechanical predictors of clinical and functional outcomes after total hip replacement \$22,250
7/1/11 – 6/30/13	Principal Investigator Rush Translational Science Consortium/Searle Foundation Pilot Projects Grant <u>Title</u> : Development and validation of a novel biomechanical marker of hip osteoarthritis \$100,000
8/1/11 – 4/30/15	Co-Investigator (Principal Investigator Markus Wimmer) NIH/NIAMS R01AR059843 <u>Title</u> : Wear Testing for Enhanced Prediction of TKR Clinical Performance \$900,000 direct costs
7/1/10 – 6/30/16	Recipient, NIH Loan Repayment Program (NIAMS) Extramural Loan Repayment Program for Clinical Research (LRP-CR) \$141,297
7/1/10 – 7/1/12	Co-Investigator (Principal Investigator Najia Shakoor, MD) Arthritis Foundation Innovative Research Grant <u>Title</u> : The Effects of Specialized Footwear in Osteoarthritis of the Knee \$200,000
7/1/06 – 6/30/10	Co-Investigator (Principal Investigator Markus Wimmer) NIH/NIAMS R03AR052039 <u>Title</u> : “Daily Activity of TKR Patients as Input for Wear Testing \$150,000 (Direct Costs)

PUBLICATIONS

Articles in peer-reviewed journals:

1. Kim, J, **Foucher KC**. Fall experiences from the perspectives of people with osteoarthritis: In their own words. *Disability and Rehabilitation*, 46: 77-85, 2024.
2. Huang CH, Aydemir B, **Foucher KC**. Split-Belt Treadmill Training Improves Gait Efficiency in People with Hip Osteoarthritis: A Proof-of-Concept Study. *Biomechanics*, 3, 220-230, 2023.
3. Aydemir B, Huang CH, **Foucher KC**. Gait characteristics and kinesiophobia explain physical activity in adults with osteoarthritis. *Journal of Orthopaedic Research*, 41:2629–2637, 2023.
4. Ramachandran RA, Chi S-W, Pai S, **Foucher K**, Ozevin D, Mathew M. Artificial Intelligence and Machine Learning as a Viable Solution for Hip Implant Failure Diagnosis – Review of Literature and In Vitro Case Study. *Medical & Biological Engineering & Computing*, 61: 1239-1255, 2023.
5. Huang CH, Aydemir B, **Foucher KC**. Sagittal Plane Ankle Kinetics are Associated with Dynamic Hip Range of Motion and Gait Efficiency in Older Adults with Hip Osteoarthritis. *Journal of Orthopaedic Research*, 41: 555-561, 2023
6. Ramachandran RA, Lee C, Lu Z, Supriya MH, Bijukumar D, Pai PS, **Foucher K**, Chi SW, Ozevin D, Mathew, MT. Total Hip Replacement Monitoring: Numerical Models for the Acoustic Emission Technique. *Medical & Biological Engineering & Computing*, 60: 1497-1510, 2022.
7. Aydemir B, Huang CH, **Foucher KC**. Strength and physical activity in osteoarthritis: the mediating role of kinesiophobia. *Journal of Orthopaedic Research*, 40: 1135-1142, 2022.
8. Huang CH, Aydemir B, Jalasutram A, Kabir I, **Foucher KC**. Impact of Step Length Asymmetry on Walking Energetics in Women with Hip Osteoarthritis. *Journal of Biomechanics*, 129: 110862, 2021.
9. **Foucher KC**, Aydemir B, Huang CH. Walking energetics and fatigue are associated with physical activity in people with knee osteoarthritis. *Clinical Biomechanics*, 88: 105427, 2021.
10. **Foucher KC**, Huang CH, Aydemir B. Walking energetics and abductor strength are associated with physical activity in women with hip osteoarthritis. *Gait and Posture*, 85:151-156, 2021.
11. **Foucher KC**, Aydemir B, Horras M, Huang CH, Chmell SJ. Aerobic capacity and fatigability are associated with physical activity in women with hip osteoarthritis. *Journal of Orthopaedic Research*, 39: 1236-1244, 2021.
12. The ORS Task Force on Diversity and Inclusion: Alliston T, **Foucher KC**, Frederick B, Hernandez CJ, IatridisJC, Kozloff KM, Lewis KJ, Liu, XS, Mercer DM, Ochia R, Queen RM, Rimnac CM, van der Meulen MCH, Westendorf JJ. The Importance of Diversity, Equity and Inclusion in Orthopaedic Research. *Journal of Orthopaedic Research*, 38:1661–1665, 2020.
13. **Foucher KC**, Pater ML, Grabiner MD. Task-specific perturbation training improves the recovery stepping responses by women with knee osteoarthritis following laboratory-induced trips. *Journal of Orthopaedic Research*, 38:663–669, 2020.
14. Hall M, Chabra S, Shakoor N, Leurgans SE, Demirtas H, **Foucher KC**. Hip joint loading according to symptoms in people with early radiographic hip osteoarthritis. *Journal of Biomechanics*, 96:109347, 2019
15. Huang CH, **Foucher KC**. Step Length Asymmetry and its Associations with Mechanical Energy Exchange, Function, and Fatigue after Total Hip Replacement. *Journal of Orthopaedic Research*, 37:1563–1570, 2019.

16. Cinnamon CC, Longworth JA, Brunner JH, Chau VK, Ryan CA, Dapiton KR, Chmell SJ, **Foucher KC**. Static and Dynamic Abductor Function Are Both Associated With Physical Function 1 to 5 years after Total Hip Arthroplasty. *Clinical Biomechanics*, 67: 127-133, 2019.
17. Farkas G, Schlink B, Fogg L, **Foucher KC**, Wimmer M, Shakoor N. Gait asymmetries in symptomatic unilateral osteoarthritis of the hip and their association with radiographic severity and pain. *Hip International*, 29:209-214, 2019.
18. **Foucher KC**, Chmell SJ, Courtney CA. Duration of Symptoms is Associated with Conditioned Pain Modulation and Somatosensory Measures in Male and Female Patients with Knee Osteoarthritis. *Journal of Orthopaedic Research*, 37: 136-142, 2019.
19. Courtney CA, Atre P, **Foucher KC**, Alsouhibani AM. Hypoesthesia after anterior cruciate ligament reconstruction: The relationship between proprioception and vibration perception deficits in individuals greater than one year post-surgery. *The Knee*, 26: 194-200, 2019.
20. Brunner JH, **Foucher KC**. Associations between biomechanics and clinical outcomes before and after total hip arthroplasty differ in men and women. *Clinical Biomechanics*, 59: 167-173, 2018.
21. Skarupski KA, **Foucher KC**. Writing Accountability Groups (WAGs): A tool to help junior faculty members build sustainable writing habits. *Journal of Faculty Development*, 32: 1-8, 2018.
22. Longworth JA, Chlosta S, **Foucher KC**. Abnormal intersegment coordination during level walking at self-selected speeds before and after total hip arthroplasty. *Journal of Biomechanics*, 72:180-186, 2018.
23. **Foucher KC**, Cinnamon CC, Ryan CA, Chmell SJ, Dapiton K. Hip abductor strength and fatigue are associated with activity levels more than 1 year after total hip replacement. *Journal of Orthopaedic Research*, 36: 1519-1525, 2018.
24. **Foucher KC**. Sex-specific hip osteoarthritis-associated gait abnormalities: Alterations in dynamic hip abductor function differ in men and women. *Clinical Biomechanics*, 48: 24-29, 2017.
25. **Foucher KC**. Preoperative gait mechanics predict clinical response to total hip arthroplasty. *Journal of Orthopaedic Research*, 35(2): 366-76, 2017.
26. Stoykov ME, Skarupski KA, **Foucher KC**, Chubinskaya S. Junior Investigators Thinking about Quitting Research: A Survey. *American Journal of Occupational Therapy*, 71(2), 2017.
27. Riff AJ, Gross CE, **Foucher KC**, Kuo KN, Gitelis S. Acetabular Osteoarticular Allograft after Ewing Sarcoma Resection: A 15-Year Follow-up. *Journal of Bone and Joint Surgery Case Connector*, 6(4), e89, 2016.
28. **Foucher KC**. Gait abnormalities before and after total hip arthroplasty differ in men and women. *Journal of Biomechanics*, 49(14): 3582-86, 2016.
29. Lundberg HJ, Rojas IL, **Foucher KC**, Wimmer MA. Comparison of Antagonist Muscle Activity during Walking between Total Knee Replacement and Control Subjects using Unnormalized Electromyography. *The Journal of Arthroplasty*, 31(6): 1331-9, 2016.
30. **Foucher KC**. Identifying Clinically Meaningful Benchmarks for Gait Improvement after Total Hip Arthroplasty. *Journal of Orthopaedic Research*, 34(1):88-96, 2016.
31. **Foucher KC**, Freels S. Preoperative Factors Associated with Postoperative Gait Kinematics and Kinetics after Total Hip Arthroplasty. *Osteoarthritis and Cartilage*. 22(10); 1685-94, 2015.

32. Shakoor N, **Foucher KC**, Wimmer MA, Mikolaitis-Preuss RA, Fogg LF, Block JA. Asymmetries and relationships between dynamic loading, muscle strength, and proprioceptive acuity at the knees in symptomatic unilateral hip OA. *Arthritis Research and Therapy*, 16(6): 455, 2014.
33. Behery OA, **Foucher KC**. Are Harris Hip Scores and Gait Mechanics Related Before and After THA? *Clinical Orthopaedics and Related Research*, 472(11): 3452-61, 2014.
34. **Foucher KC**, Wimmer MA. Does hip implant positioning affect the peak external adduction moments of the healthy knees of subjects with total hip replacements? *Journal of Orthopaedic Research*, 31(8): 1187-94, 2013.
35. Matheney T, Sandell L, **Foucher K**, Lamontagne M, Grodzinsky AJ, Peters CL. Motion analysis, cartilage mechanics, and biology in femoroacetabular impingement: Current understanding and areas of future research. *Journal of the American Academy of Orthopaedic Surgeons*, 21 (Suppl. 1): S27-S32, 2013.
36. Shakoor N, Lidtke, RH, Wimmer, MA, Mikolaitis RA, **Foucher KC**, Thorp LE, Fogg LF, Block JA. Improvement in knee loading after use of specialized footwear for knee osteoarthritis: Results of a six-month pilot investigation. *Arthritis and Rheumatism*, 65(5): 1282-89, 2013.
37. **Foucher KC**, Schlink BR, Shakoor N, Wimmer MA. Sagittal plane hip motion reversals during walking are associated with disease severity and poorer function in subjects with hip osteoarthritis. *Journal of Biomechanics*, 45(8):1360-5, 2012.
38. Lundberg HJ, **Foucher KC**, Andriacchi TP, Wimmer MA. Direct comparison of measured and calculated total knee replacement force envelopes during walking in the presence of normal and abnormal gait patterns. *Journal of Biomechanics*, 45(6): 990-6, 2012.
39. Wimmer MA, Hildebrand M, Moisiu KC, **Foucher KC**, Della Valle CJ, Berger RA, Galante JO. Recovery after minimally invasive total hip arthroplasty: A gait study. *Minerva Orthopedica e Traumatologica*, 63(2): 101-10, 2012.
40. Shakoor N, Lee KJ, Fogg LF, Wimmer MA, **Foucher KC**, Mikolaitis RA, Block JA. The relationship of vibratory perception with dynamic joint loading, radiographic severity, and pain in knee osteoarthritis. *Arthritis and Rheumatism*, 64:181-6, 2012.
41. **Foucher KC**, Wimmer MA. Contralateral hip and knee gait biomechanics are unchanged by total hip replacement for unilateral hip osteoarthritis. *Gait & Posture*, 35:61-5, 2012.
42. Shakoor N, Dua A, Thorp L, Wimmer MA, **Foucher KC**, Fogg LF, Block JA. Asymmetric loading and bone mineral density at the asymptomatic knees of subjects with unilateral hip OA, *Arthritis and Rheumatism*, 63:3853-8, 2011.
43. **Foucher KC**, Wimmer MA, Moisiu, KC, Hildebrand M, Berli MC, Walker MR, Berger RA, Galante JO. Time course and extent of functional recovery during the first postoperative year after minimally invasive total hip arthroplasty with two different surgical approaches. *Journal of Biomechanics*, 44:372-8, 2011.
44. **Foucher KC**, Thorp LE, Hildebrand M, Orozco D, Wimmer MA. Differences in preferred walking speeds in a gait lab compared to the "real world" after total hip replacement. *Archives of Physical Medicine and Rehabilitation*, 91:1390-5, 2010.
45. Thorp LE, Wimmer MA, **Foucher KC**, Sumner DR, Shakoor N, Block JA. The biomechanical effects of focused muscle training on medial knee loads in OA of the knee: a pilot, proof of concept study. *Journal of Musculoskeletal and Neuronal Interactions*, 10:166-73, 2010.

46. Shakoor N, Sengupta M, **Foucher KC**, Wimmer MA, Fogg LF, Block JA. The Effects of Common Footwear on Joint Loading in Osteoarthritis of the Knee. *Arthritis Care and Research*, 62:917-23, 2010.
47. **Foucher KC**, Hurwitz DE, Wimmer MA. The relative importance of gait vs. joint positioning on hip contact forces after total hip replacement. *Journal of Orthopaedic Research*, 27:1576-82, 2009.
48. Lundberg HJ, **Foucher KC**, Wimmer MA. A parametric approach to numerical modeling of TKR contact forces. *Journal of Biomechanics*, 42:541-5, 2009.
49. Rojas IL, Provencher MT, Bhatia S, **Foucher KC**, Bach B, Romeo A, Wimmer MA, Verma N. Biceps Activity during Windmill Softball Pitching: Injury Implications and Comparison to Overhand Throwing. *American Journal of Sports Medicine*, 37:558-65, 2009.
50. **Foucher KC**, Hurwitz DE, Wimmer MA. Do gait adaptations during stair climbing result in changes in implant forces in subjects with total hip replacements compared to normal subjects? *Clinical Biomechanics*, 23:754-61, 2008.
51. **Foucher KC**, Hurwitz DE, Wimmer MA. Preoperative gait adaptations persist one year after surgery in clinically well-functioning total hip replacement patients. *Journal of Biomechanics*, 40:3432-37, 2007.
52. Hurwitz DE, **Foucher KC**, Andriacchi TP. A new parametric approach for modeling hip forces during gait. *Journal of Biomechanics*, 36:113-9, 2003.
53. Hurwitz DE, **Foucher KC**, Sumner DR, Andriacchi TP, Rosenberg AG, Galante JO. The influence of walking mechanics on bone mineral density in the proximal femur in patients with hip osteoarthritis. *Journal of Biomechanics*, 31:919-25, 1998.

Book chapters:

1. Wimmer MA, **Foucher KC**, Malloy P, Nam D. "Biomechanics of Arthroplasty" in Basic Biomechanics of the Musculoskeletal System 5th edition, Nordin & Frankel eds. 2021, Lippincott Williams & Wilkins. pp 426-449.
2. **Foucher KC**. "Gait Pathomechanics in Hip Disease" in Diagnosis and Management of Hip Disease: Biological Basis of Clinical Care. Aaron RK. Ed. 2015, Springer International Publishing. pp 71-97.
3. **Foucher KC**, Wimmer MA, Andersson GBS, "Biomechanics of Arthroplasty" in Basic Biomechanics of the Musculoskeletal System 4th edition, Nordin & Frankel eds. 2011, Lippincott Williams & Wilkins. pp 404-425.

Peer-reviewed abstracts presented at national and international meetings:

1. Ogundiran OJ, Garcia SA, **Foucher KC**. Characterizing Center Of Mass Trajectory Variability In People With And Without Hip Osteoarthritis. American College of Sports Medicine Annual Meeting 2024. *Poster Presentation – Ogundiran*
2. Itodo JO, Garcia S, **Foucher KC**. Association Of Fatigue, Minimum Toe Clearance, And Physical Activity With Falls Among People With Osteoarthritis. American College of Sports Medicine Annual Meeting 2024. *Poster Presentation – Itodo*
3. Sudhir S, Nikoumanesh N, **Foucher KC**, Slater Hannigan L. Gait Patterns Differ In Patients With Knee Osteoarthritis With And Without Transfemoral Amputation. American College of Sports Medicine Annual Meeting 2024. *Poster Presentation – Sudhir*.

4. Nikoumanesh N, Sudhir S, **Foucher KC**, Slater Hannigan L. Ischemic Preconditioning Alters Gait Patterns In Individuals With Knee Osteoarthritis. American College of Sports Medicine Annual Meeting 2024. *Poster Presentation –Nikoumanesh.*
5. Ball C, **Foucher K**, Diegl-Vacek L. Implementation of a Mentoring Program to Improve Retention of Clinical Research Nurses. Association for Clinical and Translational Science Annual Meeting, 2024. *Poster Presentation – Ball*
6. **Foucher KC**, O'Shea K, Milczarek RR. Supporting Early-Career Faculty Grant Proposals through Narrative Development Training: A Proposal Narrative Development Program for Early-Career Faculty. Association for Clinical and Translational Science Annual Meeting, 2024. *Poster Presentation – Foucher*
7. Ramachandran RA, Sheng-Wei C, Ozevin D, **Foucher K**, Barba M, Mathew M. Global Trends In Orthopedic Implant Research: A Qualitative Mapping Of Article Metadata Using Natural Language Processing And Machine Learning. Orthopaedic Research Society Annual Meeting 2024. *Poster Presentation – Ramachandran*
8. Lane C, Thoma L, Alvarez C, Givens D, Nelson A, Goode A, **Foucher K**, Golightly Y. Diminished Vibration Perception and Greater Pressure Pain Sensitivity Are Associated with Worse Knee Osteoarthritis Outcomes Across Sex and Race. American College of Rheumatology Annual Meeting 2023. *Poster Presentation – Lane*
9. Arbel V, Gobeyn M, **Foucher KC**. Reliability Of Isokinetic Transverse Plane Hip Strength Testing in Supine. American Society of Biomechanics Annual Meeting 2023. *Poster Presentation - Arbel*
10. Wade F, Huang CH, Aydemir B, **Foucher KC**. Do Individuals with Lower Limb Osteoarthritis Redistribute Propulsion Proximally? American Society of Biomechanics Annual Meeting 2023. *Poster Presentation - Wade*
11. Slater LV, Jetanalin P, **Foucher, KC**. Strength Profiles in Patients with Knee Osteoarthritis with and without Unilateral Transfemoral Amputation. American College of Sports Medicine Annual Meeting 2023. *Poster Presentation - Slater*
12. Sudhir S, **Foucher KC**, Jetanalin P, Slater L. Ischemic Preconditioning Improves Muscle Performance in Participants with Knee Osteoarthritis. *Thematic Poster Presentation - Sudhir*
13. Nayak S, Aydemir B, Huang CH, **Foucher K**. Association of Frontal Plane Trunk Motion During Gait with Abductor Strength, Fatigue, and Physical Activity in Women with Hip Osteoarthritis. American College of Rheumatology Annual Meeting 2022. *Poster Presentation – Nayak*
14. **Foucher K**, Nelson A, Callahan L, Golightly Y. Association of Cognitive Impairment and Symptomatic Lower Extremity Osteoarthritis by Level of Physical Activity: Preliminary Data from the Johnston County Health Study. American College of Rheumatology Annual Meeting 2022. *Poster Presentation – Foucher*
15. Huang CH, **Foucher KC**. The Effect of Split-belt Treadmill Training on Hip Range of Motion and Plantar flexor Moment in People with Hip Osteoarthritis. World Congress of Biomechanics 2022. *Oral Presentation - Huang*
16. **Foucher KC**, Aydemir B. Physical Activity Exposure And Fall History In Women With Osteoarthritis, Orthopaedic Research Society Annual Meeting 2022. *Poster Presentation – Foucher*
17. Ramachandran RA, Chi SW, Ozevin D, **Foucher K**, Mathew MT. Categorizing And Predicting Tribocorrosion Damage Risks In THR Implants Deploying Machine Learning Models: A Preliminary Approach, Orthopaedic Research Society Annual Meeting 2022. *Oral Presentation – Ramachandran*

18. Aydemir B, **Foucher KC**. Effects of Kinesiophobia and Physical Function on Physical Activity in Adults with Knee Osteoarthritis. American College of Rheumatology Annual Meeting 2021. *Poster Presentation – Aydemir*
19. Aydemir, B, **Foucher KC**. Effects of lower limb joint powers and kinesiophobia on physical activity in people with knee osteoarthritis. American Society of Biomechanics Annual Meeting, 2021. *Oral Presentation – Aydemir*
20. Huang CH, **Foucher KC**. Split-belt treadmill training improves gait efficiency in people with hip osteoarthritis. American Society of Biomechanics Annual Meeting, 2021. *Oral Presentation – Huang*
21. Huang CH, Aydemir B, **Foucher KC**. The Effect Of Split-belt Treadmill Training On Gait Efficiency In Hip Osteoarthritis Patients: Preliminary Study, American College of Sports Medicine Annual Meeting 2021. *Poster Presentation – Huang*
22. Huang CH, Aydemir B, **Foucher KC**. Sagittal Plane Ankle Kinetics are Associated with Dynamic Sagittal Plane Hip Range of Motion and Gait Efficiency in Older Adults with Hip Osteoarthritis, Orthopaedic Research Society Annual Meeting 2021. *Oral Presentation – Huang*
23. Aydemir B, **Foucher KC**. Kinesiophobia mediates the relationship between muscle strength and physical activity in people with knee osteoarthritis, Orthopaedic Research Society Annual Meeting 2021. *Poster Presentation – Aydemir*
24. **Foucher KC**, Aydemir B, Huang CH. Modifiable Functional Factors Associated With Reduced Physical Activity in Older Women With Hip Osteoarthritis, Orthopaedic Research Society Annual Meeting 2021. *Poster Presentation – Foucher*
25. **Foucher KC**, Aydemir B, Huang CH. Walking Energetics, Fatigue, and Physical Activity in People with Knee Osteoarthritis, American College of Rheumatology Annual Meeting, 2020. *Poster Presentation – Foucher*
26. Aydemir B, **Foucher KC**. Spatial gait characteristics are related to impaired hip abductor strength in women with hip osteoarthritis, American Society of Biomechanics Annual meeting, 2020. *Poster Presentation – Aydemir*
27. Huang CH, **Foucher KC**. Step Length Asymmetry is Associated with Gait Efficiency in Older Women with Hip Osteoarthritis, American Society of Biomechanics Annual meeting, 2020. *Poster Presentation – Huang*
28. **Foucher KC**, Aydemir B, Huang CH. Aerobic Capacity And Fatigability Are Associated With Physical Activity In People With Knee OA. 66th Annual Meeting, Orthopaedic Research Society, 2020. *Poster Presentation – Foucher*
29. **Foucher KC**, JA Wilson. Comparisons between gait characteristics of total hip arthroplasty and total knee arthroplasty candidates. Comparison Of Severity Of Frontal Plane Functional Deficits In Affected Joints Between TKA And THA Candidates. 66th Annual Meeting, Orthopaedic Research Society, 2020. *Poster Presentation – Foucher*
30. **Foucher KC**, Pater ML, Grabiner MD. The influence of knee osteoarthritis on the efficacy of trip-specific fall prevention perturbation training. 65th Annual Meeting, Orthopaedic Research Society, 2019. *Poster Presentation – Foucher*
31. Horras M, Aydemir B, Huang CH, **Foucher KC**. Fatigability, Aerobic Capacity and Physical Activity in Women with Hip Osteoarthritis. Orthopaedic Research Society, Great Lakes/Midwest Regional Symposium., 2019. *Oral Presentation – Horras*

32. Huang CH, **Foucher KC**. Step Length Asymmetry and its Associations with Gait Efficiency in Older Adults with Hip Osteoarthritis. Orthopaedic Research Society, Great Lakes/Midwest Regional Symposium., 2019. *Poster Presentation – Huang*
33. **Foucher KC**, Chmell SJ, Courtney CA. Knee Osteoarthritis Symptom Duration Is Associated with Conditioned Pain Modulation and Vibration Perception Threshold Impairment. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2018. *Poster Presentation – Foucher*
34. Huang CH, **Foucher KC**. Step Length Asymmetry and its Associations with Mechanical Energy Exchange, Function, and Fatigue after Total Hip Replacement. 64rd Annual Meeting, Orthopaedic Research Society, 2018. *Poster Presentation - Huang*
35. Aydemir B, **Foucher KC**. Trunk Asymmetry during Walking is Associated with Lower Hip Abductor Strength and Activity Levels after Total Hip Replacement. 64rd Annual Meeting, Orthopaedic Research Society, 2018. *Poster Presentation - Aydemir*
36. **Foucher KC**. Examining Validity of Patient-reported Outcomes Measurement Information System (PROMIS) Instruments In Community-dwellers With Total Hip Replacements. 64rd Annual Meeting, Orthopaedic Research Society, 2018. *Poster Presentation - Foucher*
37. **Foucher KC**, Chmell SJ, Courtney CA. Sex Differences in Descending Pain Inhibition in People with Symptomatic Knee Osteoarthritis. 63rd Annual Meeting, Orthopaedic Research Society, 2017. *Poster Presentation – Foucher*
38. Cinnamon CC, Longworth JA, Brunner JH, Vhau VK, Ryan KR, Chmell SJ, **Foucher KC**. Hip Abductor Strength is Associated with both Performance Test-based and Self-reported Function after Total Hip Replacement. 63rd Annual Meeting, Orthopaedic Research Society, 2017. *Poster Presentation – Cinnamon*
39. Longworth JA, Chlostra S, Dapiton KR, Tayag KA, **Foucher KC**. Inter-joint Coordination of Kinematics and Kinetics Before and After Total Hip Arthroplasty. 63rd Annual Meeting, Orthopaedic Research Society, 2017. *Oral Presentation – Longworth*
40. Brunner JH, **Foucher KC**. Sex-Specific Associations Between Improvement in Gait Mechanics and Improvement in Pain, Function, and Abductor Strength after Total Hip Arthroplasty. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2016. *Oral Presentation – Brunner*.
41. **Foucher KC**. Gait Abnormalities Due to Hip Osteoarthritis Are Different in Men and Women. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2016. *Poster Presentation – Foucher*
42. **Foucher KC**. Sex-specific patterns of gait and functional recovery from total hip arthroplasty. 62nd annual meeting, Orthopaedic Research Society, 2016. *Poster Presentation*
43. **Foucher KC**. Clinically Anchored Benchmarks for Gait Improvement after Total Hip Arthroplasty. 61st annual meeting, Orthopaedic Research Society, 2015. *Oral Presentation*
44. Farkas GJ, Shakoor N, Lee S, Kawecki RC, **Foucher KC**, Espinoza Orias AA, Nho SJ. Somatosensory Deficits in Patients with Symptomatic Femoroacetabular Impingement. International Society for Hip Arthroscopy Annual Meeting, 2014. *e-Poster*.
45. **Foucher KC**, Skarupski KA. Greater research confidence is associated with scholarly output. Association of American Medical Colleges Group on Faculty Affairs Annual Meeting, Boston MA, 2014. *Oral Presentation*.

46. **Foucher KC**, Skarupski KA. Supporting faculty scholarship: factors associated with writing productivity. Association of American Medical Colleges Group on Faculty Affairs Annual Meeting, Boston MA, 2014. *Poster Presentation*.
47. **Foucher KC**. Preoperative Gait Variables and Harris Hip Scores Predict Clinical Recovery After Total Hip Replacement. 60th annual meeting, Orthopaedic Research Society, 2014. *Poster Presentation*
48. **Foucher KC**. Relationships between Preoperative Harris Hip Scores and Gait Improvement after Total Hip Replacement Differ in Men and Women. 60th annual meeting, Orthopaedic Research Society, 2014. *Poster Presentation*
49. **Foucher KC**, Behery OA. Relationships between clinical outcome measures and gait variables before and after total hip arthroplasty. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2013. *Oral Presentation*
50. Skarupski, KA, Stoykov ME, **Foucher KC**, Chubinskaya S. Are physician-scientists becoming an 'endangered species'? Association of American Medical Colleges, Group on Faculty Affairs Professional Development Conference, 2013. *Oral Presentation – Skarupski*
51. Lundberg HJ, **Foucher KC**, Skarupski KA. Strategies for Enhancing Writing Accountability Groups within a Junior Faculty Research Mentoring Program, Association of American Medical Colleges, Group on Faculty Affairs Annual Meeting, Minneapolis, MN, 2013. (*Winner Best in class poster award*)
52. Behery OA, **Foucher KC**. Age, gender, and body mass index do not explain individual variability in clinical and gait recovery after total hip arthroplasty. Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2013. *Oral Presentation – Foucher*
53. Chabra SS, **Foucher KC**. Hip disability and osteoarthritis outcome scores are directly related to gait variables in subjects with hip pain. Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2013.
54. **Foucher KC**, Waldman G. Total hip replacement nonresponders with high baseline clinical scores have similar gait impairment as those with low baseline clinical scores. Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2013. *Poster Presentation*
55. Waldman G, **Foucher KC**. Clinical and Biomechanical Characteristics of Total Hip Arthroplasty Responders and Nonresponders. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2012. *Oral Presentation*
56. Chabra SS, Shakoor N, **Foucher KC**. Gait Differences Are Present in Subjects with Symptomatic Vs. Asymptomatic Mild Radiographic Hip Osteoarthritis. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2012. (*Winner ACR/REF/Abbot Medical/Graduate Student Achievement Award*) *Poster Presentation – Chabra*
57. Shakoor N, Lidtke RH, Fogg LF, Mikolaitis RA, Wimmer MA, **Foucher KC**, Thorp LE, Block JA. Flexible Footwear Reduces Dynamic Joint Loads in Knee Osteoarthritis: Results of a 6 Month Randomized Controlled Trial. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2012. *Poster Presentation*
58. **Foucher KC**, Skarupski KA. Writing more through peer-mentoring: developing and implementing a writing accountability group within a faculty mentoring program. Association of American Medical Colleges, Group on Faculty Affairs Professional Development Conference, 2012. *Poster Presentation*

59. **Foucher KC**, Wimmer MA. Lower preoperative hip adduction moments are associated with greater clinical and biomechanical recovery after total hip replacement. 58th Annual Meeting Orthopaedic Research Society, 2012. *Poster Presentation*
60. Mihai A, Wimmer MA, **Foucher KC**. The influence of gait abnormalities on minimum foot clearance during level walking before and after total hip replacement. 58th Annual Meeting Orthopaedic Research Society, 2012. *Poster Presentation*
61. Lundberg HJ, **Foucher KC**, Andriacchi TP, Wimmer MA. TKR Contact Forces for Normal and Abnormal Gait Patterns. 58th Annual Meeting Orthopaedic Research Society, 2012.
62. **Foucher KC**, Schlink BR, Shakoor N, Wimmer MA. Gait Biomechanics as Predictors of Hip Osteoarthritis Progression. American College of Rheumatology/Association of Rheumatology Health Professionals Annual Meeting, 2011. *Poster Presentation*
63. Schlink BR, Wimmer MA, **Foucher KC**. Hip motion patterns are associated with disease severity and reduced dynamic loading in hip osteoarthritis. 57th Annual Meeting Orthopaedic Research Society, 2011. *Oral Presentation*
64. **Foucher KC**, Galante JO, Berli MC, Berger RA, Wimmer MA. Gait adaptations and reconstructed joint geometry are associated with abnormal contralateral hip and knee loading after total hip replacement 57th Annual Meeting, Orthopaedic Research Society, 2011. *Poster Presentation* (New Investigator Recognition Award finalist)
65. Lundberg HJ, Rojas IL, **Foucher KC**, Wimmer MA. The Relationship between Muscle Activity and Gait Parameters for TKR Patients and Control Subjects 57th Annual Meeting, Orthopaedic Research Society, 2011.
66. Shakoor N, **Foucher KC**, Wimmer MA, Mikolaitis RA, Khandelwal S, Block JA. Gait alterations and their association with radiographic severity and pain in unilateral hip osteoarthritis. Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2010.
67. **Foucher KC**, Wimmer MA, Moision KC, Hildebrand M, Berger RA, Galante JO. Full Activity Recovery but Incomplete Biomechanical Recovery after Minimally Invasive Total Hip Arthroplasty 56th Annual Meeting Orthopaedic Research Society, 2010. *Poster Presentation*
68. **Foucher KC**, Wimmer MA, Moision KC, Hildebrand M, Berger RA, Galante JO Recovery Rate and Extent after Two Minimally Invasive THA Approaches, American Academy of Orthopaedic Surgeons Annual Meeting, 2010. *Poster Presentation*
69. **Foucher KC**, Kannankeril G, Block JA, Shakoor N, Wimmer MA, Thorp LE. Gait Variability across the Spectrum of Knee Osteoarthritis, American College of Rheumatology/Association of Rheumatology Health Professionals, Annual Meeting 2009. *Poster Presentation*
70. **Foucher KC**, Orozco D, Berger RA, Wimmer MA. Relationships between habitual and laboratory walking speeds and clinical function after total hip replacement. 55th Annual Meeting Orthopaedic Research Society, 2009. *Poster Presentation*
71. Lundberg HJ, **Foucher KC**, Ngai V, Rojas IL, Swanson AJ, Wimmer MA. The influence of kinematic input variability on calculated knee joint contact forces. 55th Annual Meeting Orthopaedic Research Society, 2009.
72. **Foucher KC**, Hurwitz DE, Wimmer MA. Comparison of parametrically modeled hip forces to optimization based results and forces measured in vivo. 54th Annual Meeting Orthopaedic Research Society, 2008. *Poster Presentation*
73. Laurent MP, Mueller M, **Foucher KC**, Wimmer MA. Knee Joint Dynamics during Bicycling. A Comparison to Walking. 54th Annual Meeting Orthopaedic Research Society, 2008.

74. Rojas IL, Provencher MT, Bhatia S, **Foucher KC**, Bach B, Romeo A, Wimmer MA, Verma N. Windmill softball pitching vs. overhand throwing: Injury implications from biceps muscle activity. 54th Annual Meeting Orthopaedic Research Society, 2008.
75. Wimmer MA, Thorp LE, **Foucher KC**, Sumner DR, Shakoor N, Block JA. Hip Abductor Strengthening Reduces Medial Knee Loads and Palliates Knee Pain. Annual Meeting American College of Rheumatology/Association of Rheumatology Health Professionals, 2007.
76. Lidtke R, Wimmer MA, **Foucher KC**, Block JA. The Role of Rearfoot Mobility in the Long Term Response to Wedge Orthoses in Medial Knee OA. Annual Meeting American College of Rheumatology/Association of Rheumatology Health Professionals, 2007.
77. **Foucher KC**, Hurwitz DE, Wimmer MA. Gait adaptations and high implant twisting moments during stair climbing in subjects with total hip replacements. 31st Annual Meeting American Society of Biomechanics 2007. *Poster Presentation*
78. Trombley RM, **Foucher KC**, Berger RA, Wimmer MA. Gait adaptations and recovery rates following minimally invasive total hip replacement. 31st Annual Meeting American Society of Biomechanics 2007.
79. **Foucher KC**, Hurwitz DE, Wimmer MA. Gait adaptations are more important than positioning of the hip center in determining hip loading after total hip replacement surgery. 53rd Annual Meeting Orthopaedic Research Society, 2007.
80. Lidtke R, Goker B, Muehleman C, Wimmer M, **Foucher, KC**, Block, J. Lower extremity structural alignment and mobility determines if valgus wedged orthoses reduce knee adduction moments in medial knee osteoarthritis (OA). 53rd Annual Meeting Orthopaedic Research Society, 2007.
81. Wimmer MA, Thorp L, **Foucher KC**, Sumner DR, Block JA. Medial Knee Osteoarthritis (OA) is Associated with Reduced Hip Internal Rotation Moments. Annual Meeting American College of Rheumatology/Association of Rheumatology Health Professionals, 2006.
82. Lidtke R, Muehleman C, **Foucher K**, Wimmer M, Block J. Motion at Rearfoot Determines if Valgus Wedged Orthosis Reduce Knee Adduction Moments in Medial Knee Osteoarthritis (OA). Annual Meeting American College of Rheumatology/Association of Rheumatology Health Professionals 2006.
83. Lidtke R, Goker B, Muehleman C, Wimmer M, **Foucher K**, Block J. Rearfoot mobility determines if valgus wedged orthoses reduce knee adduction moments in medial knee osteoarthritis (OA). Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2006.
84. Wimmer MA, Thorp LE, **Foucher KC**, Sumner DR, Block JA. Medial compartment loading and weak hip abductors in patients with knee OA: a pilot study of the effect of hip strengthening on joint loading. Osteoarthritis Research Society International, World Congress on Osteoarthritis, 2006.
85. **Foucher KC**, Wimmer MA, Hurwitz DE. Relationships between reconstructed hip center and hip forces after accounting for the effect of gait adaptations. 30th Annual Meeting American Society of Biomechanics, 2006. *Oral Presentation*
86. **Foucher KC**, Wimmer MA, Hurwitz DE. The influence of hip muscle activity on modeled hip contact forces during walking in subjects with total hip replacements. 5th World Congress of Biomechanics, 2006. *Oral Presentation*
87. **Foucher KC**, Wimmer MA, Hurwitz DE. Inter- and intra-subject variability of modeled hip forces in subjects with total hip replacements. 5th World Congress of Biomechanics, 2006. *Oral Presentation*

88. **Foucher KC**, Hurwitz DE, Andriacchi TP. Abductor and antagonist muscle force distributions substantially influence modeled hip forces in subjects with total hip replacements. 48th Annual Meeting Orthopaedic Research Society, 2002. *Poster Presentation*
89. **Foucher KC**, Hurwitz DE. An Evaluation of Hip Joint Contact Forces and Rotatory Torques During Walking and Stair Climbing. 5th Annual Meeting, Gait and Clinical Movement Analysis Society, 2000. *Poster Presentation*
90. **Foucher KC**, Hurwitz DE, Andriacchi TP. A new analytical parametric model that accurately predicts hip joint forces during normal and pathological gait. 46th Annual Meeting Orthopaedic Research Society, 2000. *Poster Presentation*
91. Lowinger DA, Hurwitz DE, **Foucher KC**, Goker B, Sumner DR, Block JA. Rate of progression of hip osteoarthritis relates to increased joint loads during gait. 46th Annual Meeting Orthopaedic Research Society, 2000.
92. **Foucher KC**, Hurwitz DE, Andriacchi TP. Gait adaptations in postoperative total hip replacement patients are associated with reduced hip contact force. 23rd Annual meeting of the American Society of Biomechanics 1999. *Oral Presentation (Winner Musculoskeletal Research Center of the University of Pittsburgh Medical Center Award)*
93. Hurwitz DE, **Foucher KC**. Implications of hip joint forces during gait. 12th Annual International Symposium for Technology in Arthroplasty, 1999.
94. **Foucher KC**, Hurwitz DE, Andriacchi TP, Rosenberg AG, Galante JO, Jacobs JJ. Hip joint load alterations in total hip replacement patients, American Society of Mechanical Engineering, Summer Bioengineering Conference, 1999. *Poster Presentation*
95. Buchanan B, Hurwitz DE, **Foucher KC**, Rosenberg AG, Galante JO, Andriacchi TP. Gait adaptations in patients with total hip replacements persist over time. 45th Annual Meeting Orthopaedic Research Society, 1999.
96. **Foucher KC**, Hurwitz DE, Sumner DR, Andriacchi TP, Rosenberg AG. An evaluation of muscle force predictions at the hip joint. International Mechanical Engineering Congress and Exposition, Bioengineering Division, 1998. *Poster Presentation*
97. **Foucher KC**, Soomekh D, Hurwitz DE, Andriacchi TP, Rosenberg AG, Galante JO. Factors influencing variation in gait adaptations after total hip replacement. 3rd Annual Meeting North American Society of Gait and Clinical Movement Analysis, Gait and Posture, 7(2):158-9, 1998. *Oral Presentation*.
98. Hurwitz DE, **Foucher KC**, Sumner DR, Andriacchi TP, Rosenberg AG. Bone density changes in osteoarthritis are associated with hip joint loading. 44th Annual Meeting Orthopaedic Research Society, 25, 1998.
99. Hurwitz DE, **Foucher KC**, Andriacchi TP, Rosenberg AG, Galante JO. Similarities between gait adaptations in preoperative and postoperative total hip replacement patients. American Society of Mechanical Engineering Summer Bioengineering Conference, 1997.
100. Hurwitz DE, **Foucher KC**, Sumner DR, Andriacchi TP, Galante JO, Rosenberg AG. Greater trochanter bone loss in preoperative total hip replacement patients is related to the hip adduction moment during gait. 21st Annual Meeting of American Society of Biomechanics, 252-3, 1997.
101. **Foucher KC**, Hurwitz DE, Andriacchi TP, Rosenberg AG, Galante JO. Reductions in hip contact forces due to gait adaptations in preoperative total hip replacement patients persist even if antagonistic muscle activity is increased. 21st Annual Meeting of American Society of Biomechanics, 192-3, 1997. *Poster Presentation*

102. Hurwitz DE, Sugar DA, Rottier F, **Foucher KC**, Sumner DR, Andriacchi TP. Dynamic Medial Loads During Gait Influence Tibial Bone Distribution. American Society of Mechanical Engineering, Summer Bioengineering Conference, BED vol 35:503-4, 1997. *Oral Presentation*.
103. Hurwitz DE, Sugar DA, Rottier F, **Foucher KC**, Sumner DR, Andriacchi TP, Rosenberg AG, Galante JO. Changes in Tibial Bone due to Dynamic Loading During Gait. 43rd Annual Meeting Orthopaedic Research Society, 1997.

TEACHING & MENTORING

SUMMARY OF TEACHING ACTIVITIES

Developed and taught courses in locomotion biomechanics and tissue mechanics for graduate students, then adapted coursework to suit undergraduate student needs. Experience teaching groups of up to 100 students, in face-to-face and virtual formats, including sections that include undergraduate and graduate learning together at appropriate levels. In each course, exposes students to cutting edge research through guest lectures, with particular emphasis on highlighting researchers in the field who are members of groups underrepresented in science.

COURSES TAUGHT AT UNIVERSITY OF ILLINOIS CHICAGO

Mechanics of Human Locomotion (offered as KN 394, 494, and/or 594)

- Junior/senior and graduate level course in gait mechanics
- Spring 2015; Fall 2017; Spring 2019; Fall 2020; Spring 2021; Fall 2021; Fall 2022

Tissue Mechanics (KN 362)

- Junior/senior level course in mechanics of musculoskeletal tissues
- Required for all Kinesiology undergraduates as of 2021
- Fall 2020; Spring 2022, Spring 2023; Fall 2023; Spring 2024

Biomechanics of the Neuromusculoskeletal Systems (KN 465)

- Junior/senior and graduate course in tissue mechanics
- Required for Movement Science concentration until 2022
- Fall 2015-Fall 2020

Current Research in Kinesiology (KN 501)

- Biomechanics structured journal club
- Fall 2016, Spring 2023

Independent Research in Kinesiology (KN 596; KN 396)

- Supervised independent biomechanics projects for undergraduate or graduate students
- Examples include: Temporomandibular Joint Rehabilitation; Biomechanics of Tai Chi Stepping
- Spring 2014; Spring 2016-Fall 2016

Guest lectures

- BME 562 Biomedical Implants in Orthopedics and Dentistry (Fall 2021)
- BME 494 Human Movement and Neural Control (Fall 2021)
- KN 594 Grant Writing for PhD students (annually Spring 2017 - 2022)
- KN 100 First-Year Seminar (Fall 2017, Fall 2019-Spring 2021, Spring 2022)
- HN 594 Cells to Community (Fall semesters 2015-2021)

- KN/PT 574 Instrumentation for Motor Control Research (Fall 2015)

COURSES TAUGHT AT RUSH UNIVERSITY

Kinematics of Human Motion (BMC 513)

- Developed and taught graduate-level course in lower extremity gait kinematics
- Required course for MS in Biomechanics
- Spring 2013

M1 Research Elective

- Mentored individual research projects
- Led section of journal club
- Fall 2011-Spring 2013

SUMMARY OF MENTORING ACTIVITIES

Experienced mentor for undergraduates to postdoctoral fellows and faculty in varied fields within engineering and health sciences. Mentoring activities include advising graduate students and postdoctoral fellows, facilitating writing groups, and small group grant coaching. Trained in mentoring best practices through National Research Mentoring Network Entering Mentoring curriculum. Recently graduated doctoral students are in faculty positions or competitive postdoctoral positions. MS students have continued to doctoral study, entrepreneurial activities, and industry. Undergraduate research assistants have gone on to doctoral programs and careers including nursing, counseling, physical therapy. Contributions to mentoring have been recognized through the 2021 Orthopaedic Research Society Adele L. Boskey, PhD Award.

JUNIOR FACULTY MENTORING

2024-Present Kelsey Gabel, RD, PhD
Assistant Professor, Department of Kinesiology and Nutrition
University of Illinois Chicago

POSTDOCTORAL FELLOW MENTORING

2023 Steven Garcia, PhD
General Topics: Clinical trial design and management; undergraduate and graduate student mentoring; biomechanical and imaging predictors of OA progression in at-risk joints

2022-2023 Francesca Wade, PhD
General Topics: Factors associated with forward propulsion during walking in people with OA; Clinical trial design and management

2014-2017 Jessica A. Longworth, PhD
General Topics: Intralimb coordination during walking in people with hip OA and total hip replacements; Undergraduate research mentoring

GRADUATE STUDENT ADVISING

2023- Present Oiza Peters, PT, PhD student
Department of Kinesiology and Nutrition
University of Illinois Chicago

2023- Present	Paige Perry, MS student Department of Kinesiology and Nutrition University of Illinois Chicago
2023-Present	Joy Itodo, PT, MSc, PhD student Department of Kinesiology and Nutrition University of Illinois Chicago
2022-Present	Doyin Ogundiran, MS student Department of Kinesiology and Nutrition University of Illinois Chicago
2020-2022	Janis Kim, PT, PhD Department of Kinesiology and Nutrition University of Illinois Chicago <u>Dissertation</u> : Determining Fall Types and Fall Assessment Measures for People with Osteoarthritis
2020-2022	Daniel Hlavacek, MS Department of Kinesiology and Nutrition University of Illinois Chicago <u>Project</u> : Kinesiophobia, strength, and pain in knee osteoarthritis populations
2019-2021	Sanghamitra Nayak, MS, University of Illinois Chicago Department of Kinesiology and Nutrition <u>Project</u> : Increased trunk motion during gait in women with hip OA leads to decreased self-reported fatigue and reduced physical activity
2019-2020	Bradley Allison, DPT, PhD Student Department of Kinesiology and Nutrition University of Illinois Chicago
2018-Present	Vered Arbel, MS, PhD Candidate Department of Kinesiology and Nutrition University of Illinois Chicago
2016-2021	Burcu Aydemir, PhD Department of Kinesiology and Nutrition University of Illinois Chicago <u>Dissertation</u> : Combined effects of physical and psychological factors on physical activity in adults with osteoarthritis
2016-2021	Chun-Hao Huang, PhD Department of Kinesiology and Nutrition University of Illinois Chicago <u>Dissertation</u> : The Influence of Hip Osteoarthritis Associated Gait Impairments on The Efficiency of Gait and A Possible Rehabilitation Strategy
2015-2017	Christopher C. Cinnamon, JD, MS Department of Kinesiology and Nutrition University of Illinois Chicago <u>Project</u> : Static and Dynamic Abductor Function Are Both Associated With Physical Function 1 to 5 years after Total Hip Arthroplasty
2012-2017	Samir Chabra, MS Department of Bioengineering University of Illinois Chicago

2009-2011 Bryan R. Schlink, MS
Department of Bioengineering
University of Illinois Chicago
Thesis: Gait Biomechanics and Disease Severity in Hip Osteoarthritis

OTHER GRADUATE STUDENT EXAM COMMITTEES

2024 Shravni Desmukh, PhD Student
Rehabilitation Sciences (Advisor: Sangeetha Madhavan, PT, PhD)
University of Illinois Chicago

2023 Julie Olsen, PhD Candidate
Department of Kinesiology and Nutrition (Advisor: Andrew Sawers, CPO, PhD)
University of Illinois Chicago

2023 Mariah Balinski PT, DPT, PhD Candidate
Rehabilitation Sciences (Advisor: Sangeetha Madhavan, PT, PhD)
University of Illinois Chicago

2023 Andie Tangonan
MS Healthspan Promotion & Rehabilitation (Advisor: Lindsay Slater, PhD)
University of Illinois Chicago

2022 Mark Cummings, PhD Candidate
Rehabilitation Sciences (Advisor: Sangeetha Madhavan, PT, PhD)
University of Illinois Chicago

2020 Alexandra Nilus, MS
Department of Kinesiology and Nutrition (Advisor: Andrew Sawers, CPO, PhD)
University of Illinois Chicago
Project: Guidelines for quantifying strength in people with lower limb amputation

2019 Aaron Westbrook, MS
Department of Kinesiology and Nutrition (Advisor: Mark Grabiner, PhD)
University of Illinois Chicago
Project: Step width does not scale to body size of young adults during treadmill gait

2019 David Desmet, MS
Department of Kinesiology and Nutrition (Advisor: Mark Grabiner, PhD)
University of Illinois Chicago
Project: Treadmill-belt width, but not feedback from the lower visual field, influences noise characteristics of step width time series during treadmill walking

2018-2019 Janis Kim, PT, PhD Candidate
Department of Kinesiology and Nutrition (Advisor: Andrew Sawers, CPO, PhD)
University of Illinois Chicago

2017 Kevin Palumbo, MS
Department of Kinesiology and Nutrition (Advisor: Mark Grabiner, PhD)
University of Illinois Chicago
Project: Walking for 10 minutes with a decreased step width decreases subsequent step width and margin of stability

- 2015-2018 Steven Mell, PhD
Department of Bioengineering (Advisor: Hanna J. Lundberg, PhD)
University of Illinois Chicago
Dissertation: Computational, Subject Specific Damage Modeling of the Polyethylene Component of Total Knee Replacements
- 2015-2016 Kristin Hoddy, PhD
Department of Kinesiology and Nutrition (Advisor: Krista Varady, PhD)
University of Illinois Chicago
Dissertation: Meal timing during alternate day fasting: Effect on heart disease risk and hunger in obese humans
- 2014-2018 Christopher Knowlton, PhD
Department of Bioengineering (Advisor: Markus Wimmer, PhD)
University of Illinois Chicago
Dissertation: A Model of Wear from Retrieved Polyethylene Components of Total Knee Replacements
- 5/2014 Andrew Arnold, MS
Department of Kinesiology and Nutrition (Advisor: Mark Grabiner, PhD)
University of Illinois Chicago
Project: Influence of walking speed and slope on the relationship between trunk kinematics and step width
- 2/2014 Christopher Ferrigno, MPT, PhD
Department of Anatomy and Cell Biology (Advisors: Markus Wimmer, PhD, Najia Shakoor, MD, Laura Thorp, PT, PhD)
Rush University
Dissertation: Evaluating the Association between Changes in Foot Kinematics, Center of Foot Pressure, and Knee Joint Loading
- 3/2014 Mackenzie Pater, PhD
Department of Kinesiology and Nutrition (Advisor: Mark Grabiner, PhD)
University of Illinois Chicago
Dissertation: Associating Knee Osteoarthritis with Fall Risk: Implications for Interventions

MEDICAL STUDENT RESEARCH MENTORING

- Summer 2012 Omar Behery (Deans Fellowship Recipient)
Rush Medical College
- 2011-2012 Genna Waldman
Rush Medical College
- Summer 2011 Andreea Mihai (Dean's Fellowship Recipient)
Rush Medical College
Melanie Marsh (co-mentor with Laura Thorp, PT, PhD)
Rush Medical College
- Summer 2009 Matthew R. Walker
University of Illinois Chicago
- Summer 2008 George Kannakeril
Rush Medical College

UNDERGRADUATE STUDENT RESEARCH MENTORING

2020-2021	Lauren Yee, University of Illinois Chicago, Kinesiology
2020-2021	Anwar Masud, University of Illinois Chicago, Kinesiology
2019-2020	Chloe Baratta, University of Illinois Chicago, Bioengineering
2019-2020	Anusha Jalastrutram, University of Illinois Chicago, Integrative Health Sciences Advisor, Honors College Capstone Project
2019-2020	Ike Kabir, University of Illinois Chicago, Bioengineering
2019-2020	Khush Brar, University of Illinois Chicago, Kinesiology
2017-2019	Megan Horras, University of Illinois Chicago, Kinesiology
2014-2017	Vivian Chau, University of Illinois Chicago, Kinesiology
2014-2017	Kristin Tayag, University of Illinois Chicago, Kinesiology
2014-2016	Colleen Ryan, University of Illinois Chicago, Kinesiology
2014-2015	Sebastian Chlosta, University of Illinois Chicago, Bioengineering
2014-2016	Kris Dapitan, University of Illinois Chicago, Kinesiology Advisor, Honors College Capstone Project

OTHER MENTORING

2023-2024	DNP Practice Mentor, Charity Ball, MSN, RN University of Illinois Chicago
2022-2024	External Mentor, Cherice N. Hill, PhD (K99DE031345) Association of American Medical Colleges NIH MOSAIC K99/R00 Career Development Program
2010-2013	Founder, Facilitator, Writing Accountability Groups Rush University Research Mentoring Program
2009-2011	Member Mentoring Committee, Hannah J. Lundberg, PhD (F32 AR057297) Rush University

PROFESSIONAL ACTIVITIES & SERVICE

INSTITUTIONAL SERVICE AT UNIVERSITY OF ILLINOIS CHICAGO

2023	Open Rank Biomechanics Faculty Search Committee Department of Kinesiology and Nutrition
2022	Chicagoland Diverse STEM Postdoc Recruitment Initiative, Faculty
2022	College of Applied Health Sciences Dean Search Committee
2021-2023	College of Applied Health Sciences Dean's Executive Committee (Alternate 21-22, Primary 22-23)
2021	Promotion and Tenure Committee Department of Biomedical and Health Information Sciences
2021	Bridge to the Faculty Postdoctoral Research Associate Search Committee, Department of Occupational Therapy

2020 - Present	Promotion and Tenure Committee Department of Kinesiology and Nutrition
2019-2022	Curriculum Committee Department of Kinesiology and Nutrition
2019-2021	Faculty Advisory Committee Department of Kinesiology and Nutrition
2018-2019	Task force on the BS in Kinesiology Department of Kinesiology and Nutrition
11/19/2018	Interview for student from Applied Health Sciences 294
Summer 2018	Clinical Assistant Professor Search Committee Department of Kinesiology and Nutrition
Summer 2018	Clinical Instructor Search Committee Department of Kinesiology and Nutrition
Spring 2018	Clinical Instructor Search Committee Department of Kinesiology and Nutrition
2017-2019	Doctoral Student Evaluation Committee Department of Kinesiology and Nutrition
Annually 2015-2023	Applied Health Sciences: Summer Exploration and Transition Program Faculty Round Table (<i>cancelled 2019-2020</i>)
Spring 2015	Chair, Clinical Instructor Search Committee Department of Kinesiology and Nutrition
2014-2015	Chair, Doctoral Student Evaluation Committee Department of Kinesiology and Nutrition
Spring 2015	Assistant/Associate Professor, Biomechanics/Mobility Search Committee Department of Kinesiology and Nutrition
Various dates	Lab Tour & Interview for students from Biological Sciences 100 3/6/19; 10/26/17; 3/2/16; 3/19/15
7/15/14	Applied Health Sciences: Summer Exploration and Transition Program, Lab Tour
7/1/14-6/20/16	College of Applied Health Sciences Representative University of Illinois Chicago Senate
2013- 2014	Doctoral Student Evaluation Committee Department of Kinesiology and Nutrition
Spring 2014	Clinical Assistant/Associate Professor, Anatomy and Physiology Search Committee, Department of Kinesiology and Nutrition

INSTITUTIONAL SERVICE AT RUSH UNIVERSITY:

2012-2013	Provost Committee on Gender Issues
2012-2013	Committee on Admissions, Holistic Screening Subcommittee
2012-2013	Committee on Admissions, Interviewer Subcommittee
2012	Rush Research Mentoring Program Annual Retreat Planning Committee
2012	External Member, Faculty Search Committee, Department of Kinesiology and Nutrition University of Illinois Chicago
2011-2012	Interviewer, Office of Admissions, Rush Medical College
2011	Rush Research Mentoring Program Annual Retreat Planning Committee
2011	T32 Short-term Trainee Selection Committee, Department of Anatomy and Cell Biology, Rush Medical College

PROFESSIONAL SOCIETY MEMBERSHIPS & SERVICE

2022-Present	American Society of Mechanical Engineers
2020-Present	Black Biomechanists Association
	2020-2022 Mentoring Committee
2020-Present	American Society of Biomechanics
	2023 Co-facilitator, Workshop: Creating the future of biomechanics through comprehensive admissions practices
	2023 Predoctoral Award Committee
	2022 North American Congress on Biomechanics Session Moderator, Orthopedic Biomechanics
	2020-2022 Mentor, Student Mentoring Program
	2021 Facilitator, Impact of the COVID-19 pandemic on women in academia
2008-Present	Orthopaedic Research Society
	2023-2025 Board of Directors, Community Council Chair
	<i>Contributes to the general governance of the organization. Oversee the Diversity Equity, Inclusion, and Accessibility Committee, Membership Committee, and Women's Leadership Forum. Lead task force on Transformative Diversity Initiatives</i>
	2024 Moderator, Hip - Surgical Tools, Approaches, and Outcomes
	2023 New Investigator Research Awards Committee
	2022 Panelist, Destigmatizing Mental Illness: Practical Tools for the Workplace
	2022 Moderator, Hip - Injury, Diagnostics and Treatment Session
	2020-2023 Chair, Diversity, Equity, and Inclusion Committee
	2020-2021 Mentor, Mentor Match Program
	2020 Panelist, Understanding and Addressing our Own Implicit Biases
	2020 Mentor, Meet the Mentor Program
	2020 Moderator, Epidemiology Session
	2019 Poster Judge, ORS Great Lakes/Midwest Regional Symposium
	2019 Diversity and Inclusion Task Force
	2018-2020 Awards and Recognition Committee
	2018 Moderator, Arthroplasty Clinical Outcomes Session
	2014 Poster Tour Leader, Hip Mechanics and FAI
	2014-present Abstract Reviewer

GRANT REVIEW

7/2017-6/2023	NIH Grant Review Standing Member Musculoskeletal Rehabilitation Sciences Study Section [MRS]
11/2021	NIH Grant Review; National Institute of Arthritis and Musculoskeletal and Skin Diseases, Special Emphasis Panel

3/2021	NIH Grant Review; National Institute of Arthritis and Musculoskeletal and Skin Diseases, Special Emphasis Panel
10/2019	NIH Grant Review MOSS Special Emphasis Panel – Pediatric Rehabilitation <i>Alternate Chair</i>
9/2019	Center for Clinical and Translational Science Pilot Grant Review Panel
7/2019	NIH Grant Review National Institute of Biomedical Imaging and Bioengineering Special Emphasis Panel
6/2017	NIH Grant Review <i>ad hoc</i> Member Musculoskeletal Rehabilitation Sciences Study Section [MRS]
3/2017	NIH Grant Review; National Institute of Arthritis and Musculoskeletal and Skin Diseases, Special Emphasis Panel
3/2017	University of Illinois Chicago Limited Competition Internal Peer Review Aetna Foundation
1/2017	University of Illinois Chicago Limited Competition Internal Peer Review HRSA Primary Care Medicine and Dentistry Clinician Educator Award
12/2016	Orthopaedic Research and Education Foundation Goldberg Arthritis Research Grant Peer Review Committee
10/2016	NIH Grant Review <i>ad hoc</i> Member Musculoskeletal Rehabilitation Sciences Study Section [MRS]
2/2015	NIH Grant Review <i>ad hoc</i> Member Skeletal Biology Structure & Regeneration Study Section [SBSR]

EDITORIAL & PUBLICATION REVIEW ACTIVITIES

11/2022-10/2025 Associate Editor, *Journal of Biomechanical Engineering*

Editorial boards:

2021-present Board of Consulting Editors, *Journal of Biomechanics*
2019-present Editorial Review Board, *Journal of Orthopaedic Research*

Ad Hoc Peer-review:

Arthritis & Rheumatology	Gait & Posture
Archives of Physical Medicine and Rehabilitation	Journal of Biomechanics
Clinical Biomechanics	Journal of Orthopaedic Research
Clinical Orthopaedics and Related Research	Medicine and Science in Sports & Exercise
Experimental Gerontology	Osteoarthritis and Cartilage
	Physical Therapy

OTHER SERVICE & OUTREACH

- 4/8/2024 National Biomechanics Day
Lab hosted a class from Altus Academy as part of a national initiative to introduce young people to the field. Graduate student Doyin Ogundiran received grant funding from the Biomechanics Initiative Inc. to support this programming.
- 12/16/2020 National Research Mentoring Network Mock Study Section
- 4/11/2018 National Biomechanics Day
Lab hosted a class of 25 students in grades 4-6 from Suder Montessori School, a Chicago Public School as part of a national initiative to introduce young people to the field.