

Deepak Kumar, PT, PhD

Physical Therapy & Athletic Training
635 Commonwealth Ave
Boston University
Boston, MA 02215

Phone: 617-358-3037
Fax: 617-353-9463
Email: kumard@bu.edu
Web: <http://sites.bu.edu/kumarlab/>

Education and Training

- 2010- 2014 **Postdoctoral Researcher**
Musculoskeletal Quantitative Imaging Research Group, Radiology and Biomedical Imaging, University of California, San Francisco, USA
- 2006- 2010 **Ph.D. Biomechanics and Movement Science**
Interdisciplinary Program in Biomechanics and Movement Science, Department of Physical Therapy, University of Delaware, Newark, DE, USA
Dissertation: *Neuromuscular Control of Joint Stability in Knee Osteoarthritis*
- 2001 - 2003 **Master of Physical Therapy (Musculo-skeletal)**
Department of Rehabilitation Science, Jamia Hamdard, New Delhi, India
Thesis: *Effect of a Sensorimotor Training and Cervical Stabilization Program in the Correction of Forward Head Posture in Male Visual Display Unit Operators*
- 1997 - 2001 **Bachelor of Science (Honors) Physical Therapy**
Pt. D.D.U. Institute for the Physically Handicapped, Delhi University, New Delhi, India

Professional Appointments

- 2018 - Present Assistant Professor, Department of Health Sciences, Boston University
- 2018 - Present Faculty Affiliate, Rafik B. Hariri Institute for Computing and Computation Science & Engineering, Boston University
- 2017 - Present Assistant Professor, Division of Rheumatology, Department of Medicine, Boston University School of Medicine
- 2016 - Present Assistant Professor, Department of Physical Therapy & Athletic Training, Boston University, Boston, MA (*primary*)
- 2015 - 2016 Faculty, Center for Biomedical Imaging, Medical University of South Carolina, Charleston, SC
- 2014 - 2016 Assistant Professor, Division of Physical Therapy, Department of Health Professions, Medical University of South Carolina, Charleston, SC (*primary*)
- 2010 - 2014 Postdoctoral Researcher, Musculoskeletal Quantitative Imaging Research Group, Radiology and Biomedical Imaging, University of California, San Francisco, USA
- 2006 - 2010 Research Assistant, Dept. of Physical Therapy, University of Delaware, USA
- 2006 Research Assistant, Dept. of Kinesiology, University of Illinois at Chicago, USA
- 2005 Physical Therapist, Dept. of Orthopedics, All India Institute of Medical Sciences, New Delhi, India
- 2003 - 2005 Visiting Lecturer, Department of Rehabilitation Science, Jamia Hamdard, New Delhi, India
- 2003-2004 Visiting Lecturer, Pt. D.D.U. Institute for the Physically Handicapped, Delhi University, New Delhi, India
- 2003 - 2005 Physical Therapist, Dept. of Physical Therapy, Holy Family Hospital, New Delhi

Awards and Honors

2019	Second place, Best Poster Award, APTA Technology SIG, APTA CSM, Washington, DC
2018	Institute Fellow, Institute for Health System Innovation & Policy, Boston University
2018	Outstanding Reviewer for 2017, Osteoarthritis and Cartilage, Osteoarthritis Research Society International
2018	Eugene Michels New Investigator Award, American Physical Therapy Association
2015	Editor's Pick, highlighting high impact manuscripts for " <i>Anatomic correlates of reduced hip extension during walking in individuals with mild-moderate radiographic hip osteoarthritis</i> "
2015	ORS/OREF/AAOS New Investigator Workshop, Rosemont, IL
2014	Journal of Applied Physiology Editorial titled " <i>How important are perturbation responses and joint proprioception to knee osteoarthritis</i> " for manuscript " <i>Individuals with medial knee osteoarthritis show short-term neuromuscular adaptation when perturbed during walking in spite of functional and structural limitations</i> "
2014	Young Investigator Award, AAOS/CORR/ORS/CMH-UCD Musculoskeletal Sex Differences Throughout the Lifespan (SD) Research Symposium, Rosemont, IL
2014	New Investigator Award, Advancing Arthritis Research Workshop, sponsored by Boston U Center for Enhancing Activity and Participation among Persons with Arthritis (ENACT)
2012	Osteoarthritis Research Society International (OARSI) Young Investigator Travel Award
2012	OARSI OA Biomarkers Global Initiative, Top rated abstract from young investigators
2012	UCSF/UCD Translation of Quantitative Imaging in Research Center of Travel Award
2010	Best Podium Presentation, Annual Center for Biomedical Research Engineering Day
2009	University of Delaware Graduate Fellowship - \$15,500
2008	University of Florida Neuromuscular Plasticity Scholar
2005	International Society for Postural and Gait Research Annual Meeting Travel Award
2003	Gold Medal, Master of Physiotherapy (Musculo-skeletal), Jamia Hamdard, India

Licenses and Certifications

2007 – present	Physical Therapist (#5501013729), Michigan Board of Physical Therapy
2015 – 2017	Physical Therapist (#7728), South Carolina Board of Physical Therapy
2008 – 2019	Orthopedic Clinical Specialist , American Board of Physical Therapy Specialties
2004 – 2019	Physiotherapist (# PH 71213), Health Care and Professions Council, UK

Current Research Funding as PI

Pfizer ADVANCE 55810247	Kumar (PI)	08/2020 - 12/2021
<i>Mindfulness and Exercise for Chronic Pain Management in Knee Osteoarthritis</i>		
The goal of this pilot RCT is to assess the effects of mindfulness on pain sensitization and exercise induced hypoalgesia in people with knee osteoarthritis		
\$156,250 direct + \$43,749 indirect = \$200,000		
Pfizer Inc. CP223264	Kumar, Neogi (MPI)	12/2019 - 11/2021
<i>Wearable Sensor-based Outcomes Following Physical Therapy in Knee Osteoarthritis: A Feasibility Study (WESENS-OA)</i>		
The goal of this single-arm clinical trial is to develop wearable sensor-based outcomes for exercise interventions in knee osteoarthritis.		
\$875,279 direct + \$262,584 indirect = \$1,137,863		

NIH-NIAMS K01 AR069720 Kumar (PI) 08/2017 - 07/2022
Mind Your Walk Intervention for Community-based Management of Knee OA: A Feasibility Study
The goal of the grant is to assess the feasibility of a community-based intervention to improve the quality and quantity of walking in people with knee osteoarthritis.
\$576,215 direct + \$46,097 indirect = \$622,312

Current Research Funding as Co-I

NIH-NIAMS P30 AR072571 Felson (PI) 11/2019 - 07/2024
Boston University CCCR
A center grant providing clinical research support for studies of various types of arthritis including osteoarthritis
\$2,226,674 direct + \$1,416,514 indirect = \$3,643,188

Current Trainee Funding

NIH-NIAMS F32AR076907-01A1 Costello (PI) 07/2020 - 12/2021
Machine learning for analysis of walking patterns and physical activity in knee osteoarthritis
Role: Primary Mentor
The goal is to use machine learning methods to investigate the associations of ground reaction force during walking and physical activity with knee osteoarthritis outcomes in Multicenter Osteoarthritis Study (MOST).

Rheumatology Research Foundation Investigator Award Bacon (PI) 07/2020 - 06/2023
Machine learning analysis of longitudinal gait data in osteoarthritis
Role: Co-Mentor
The goal is to use machine learning methods to analyze gait data generated by wearable sensors and relationships with osteoarthritis outcomes in Multicenter Osteoarthritis Study (MOST).

Completed Research Funding

BU Digital Health Initiative and Hariri Institute Pilot Award Kumar (PI) 07/2017 - 06/2019
Physical activity promotion in people with knee osteoarthritis and comorbidities: A patient-centered mHealth intervention
The goal of this project is to develop a smartphone application for personalized interventions to increase physical activity in people with knee osteoarthritis with comorbidities.
\$50,000 direct + \$0 indirect = \$50,000

BU Evans Center ARC Borrelli, Keysor, Quintiliani (MPI) 01/2017 - 01/2018
Mobile and Electronic Health Affinity Research Collaborative (ME-Health ARC)
Role: Mentee
The mission of our ARC is to conduct state-of-the art research and training in mobile and electronic health to improve the health of underserved populations across the lifespan.
\$30,000 direct + \$0 indirect = \$30,000

BU CTSI Pilot Project Award Kumar (PI) 01/2017 - 01/2018
Quantitative Assessment of Varus Thrust in the Knee Osteoarthritis
The goal of this project is to validate inertial measurement unit (IMU) technology for quantification of varus thrust in people with knee osteoarthritis.
\$20,000 direct + \$0 indirect = \$20,000

Rheumatology Research Foundation K-Bridge Award Kumar (PI) 01/2016 - 01/2017
Feasibility of Mind Your Walk Intervention for Knee OA
 This award provided protected time and funds to prepare a resubmission of well-scored NIH K-award applications.
 $\$75,000 \text{ direct} + \$6,000 \text{ indirect} = \$81,000$

Delaware-CTR Pilot Project Award Kumar (PI) 12/2015 - 08/2016
mhealth Tool to Support Assessment of Community-Based Mindful Walking in Knee OA
 The goal of this project was to develop a mobile health application to increase participant engagement and ease evaluation in a clinical trial of mindful walking for people with knee osteoarthritis.
 $\$84,000 \text{ direct} + \$39,900 \text{ indirect} = \$123,900$

Delaware-CTR Mentored Research Development Award Kumar (PI) 04/2014 – 09/2015
Mind Your Walk: Integrative Intervention for Disease Management in Knee Osteoarthritis
 The goal of this award was to provide protected time to prepare extra-mural grant applications and a mentoring team.
 $\$22,176 \text{ direct} + \$10,533 \text{ indirect} = \$32,709$

UCSF Radiology & Biomedical Imaging Seed Grant # 12-05 Kumar (PI) 05/2012 - 06/2014
Gastric bypass surgery induced weight-loss and knee cartilage, meniscus and muscle composition
 The goal of this study was to investigate changes in knee tissue composition, and knee related disability with large weight-loss after Roux-En-Y gastric bypass surgery.
 $\$7,250 \text{ direct} + \$0 \text{ indirect} = \$7,250$

NIH-NIAMS R01-AR062370 Souza (PI) 9/2011 – 10/2014
Contact Mechanics, Neuromuscular Control, and Cartilage Composition in Knee OA
 Role: Co-I
 The goal was to compile a comprehensive database of articular contact mechanics using kinematic-MRI, gait biomechanics, function, and quantitative MR for cartilage and meniscus over 3 years in knee OA.
 $\$1,000,000 + \$248,108 \text{ indirect} = \$1,248,108$

UCSF CTSI Pilot in Integrative Medicine #20120123 Hecht (PI) 02/2013 – 01/2014
Effects of Exercise on Aging among Older Persons with HIV – Pilot Study
 Role: Co-I
 The goal of this pilot randomized clinical trial is to investigate the effect of an aerobic and strength training program on aging related changes in adults with HIV.
 $\$50,000 \text{ direct} + \$0 \text{ indirect} = \$50,000$

UCSF Radiology & Biomedical Imaging Seed Grant # 11-07 Kumar (PI) 05/2011 – 06/2013
Static and Dynamic Knee Alignment, Muscle Balance and Cartilage Composition in Young Adults
 The goal of this project was to investigate the relationship frontal plane static and dynamic alignment with knee cartilage composition in young healthy adults.
 $\$4,940 + \$0 \text{ indirect} = \$4,940$

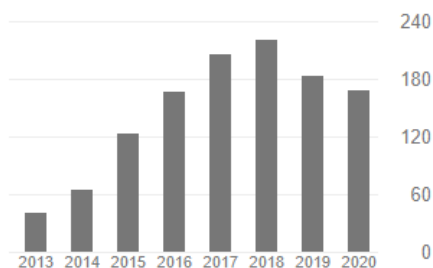
International Society of Biomechanics Doctoral Dissertation Grant Kumar (PI) 02/2009 – 01/2010
Neuromuscular Control of Joint Stability in Knee Osteoarthritis
 The goal of this project was to use an EMG-Driven musculoskeletal modeling technique for estimation of knee contact loads in individuals with knee osteoarthritis.
 $\$5,000 \text{ direct} + \$0 \text{ indirect} = \$5,000$

American College of Rheumatology- Graduate Student Award Kumar (PI) 06/2007 – 08/2007
Knee Contact Force During Walking in People with Knee Osteoarthritis
 The goal of this project was to learn the application of an EMG-Driven musculoskeletal modeling technique for estimation of knee contact loads in individuals with knee osteoarthritis
 $\$4,500 \text{ direct} + \$0 \text{ indirect} = \$4,500$

Refereed Journal Publications (36) (# denotes student/postdoctoral trainee/other trainee)

NCBI MyBibliography: <https://goo.gl/TNWCw1>

Google Scholar: <https://goo.gl/vaipFr>



Citation Indices	All
Citations	1211
h-index	21
i10-index	27

*Data extracted from Google Scholar on July 14, 2020

- Espinosa SE[#], Costello KE[#], Souza RB, **Kumar D**. Lower knee extensor and flexor strength is associated with varus thrust in people with knee osteoarthritis. *J Biomech* [in press]
- Kumar D**, Link TM, Jafarzadeh Reza S., LaValley MP, Souza R. Quadriceps adiposity is associated with increase in lesions of the knee cartilage, meniscus, and bone marrow over 3-years. *Arthritis Care Res [Hoboken]* 2020 Epub [PMID:32339414]
- Porciuncula F, Roto AV, Roy S, **Kumar D**, Davis I, Walsh CJ, Awad LN. Wearable Movement Sensors for neurological and orthopedic rehabilitation: A focused review. *Physical Medicine and Rehab* 2018 Sep;10(9 Suppl 2):S220-S232 [PMCID: PMC6700726]
- Kumar D**, Su F, Wu D, Padoia V, Heitkamp L[#], Ma B, Souza RB, Li X: Frontal plane knee mechanics and early cartilage degeneration in people with ACL reconstruction: A longitudinal study. *Am J Sports Med* 2018 Feb;46(2):378-387. [PMCID: PMC6709529]
- Kumar D**, Wyatt C, Lee S, Okazaki N, Chiba K, Link TM, Souza RB, Majumdar S: Sagittal plane walking patterns are related to MRI changes over 18-months in people with and without mild-moderate hip osteoarthritis. *J Orthop Res* 2018 May;36(5):1472-1477. [PMCID:5906210]
- Gallo MC[#], Wyatt C, Padoia V, **Kumar D**, Lee S, Nardo L, Link TM, Souza RB, Majumdar S: T1ρ and T2 relaxation times are associated with progression of hip osteoarthritis. *Osteoarthritis Cart* 2016 Aug; 24(8): 1399-407 [PMCID: PMC4955678]
- Calixto N[#], **Kumar D**, Subburaj K, Singh J[#], Schooler J[#], Nardo L, Li X, Souza RB, Link TM, Majumdar S: Zonal differences in meniscus MR relaxation times in response to in vivo static loading in knee osteoarthritis. *J Orthop Res* 2016 Feb; 34 (2): 249-61 [PMID: 26223430]
- Li X, Padoia V, **Kumar D**, Lansdown D, Wyatt CR, Rivoire J, Okazaki N, Savic D, Koff MF, Felmlee J, Williams S, Majumdar S: Cartilage T1ρ and T2 relaxation time quantification: Longitudinal reproducibility, quantification variations using different coils and scanners at single-site and multi-sites. *Osteoarthritis Cart* 2015 Dec; 23(12):2214-23 [PMCID: PMC4663102]
- Samaan M, Teng HL, **Kumar D**, Link TM, Majumdar S, Souza RB: Altered hip and knee joint coordination variability during gait in individuals with acetabular cartilage defects. *Clinical Biomechanics* 2015 Oct; 30 (1): 1202-9 [PMCID: PMC4674371]
- McDermott K, **Kumar D**, Goldman V, Feng H, Mehling W, Souza RB, Moskowitz J, Hecht FM: Training in mind-body running to increase physical activity – A Conceptual model and pilot randomized trial in participants with elevated blood pressure. *BMC Complementary and Alternative Medicine* 2015 15(1): 368 [PMCID: PMC4608185]
- Wyatt C, **Kumar D**, Subburaj K, Lee S, Nardo L, Naraynan D, Lansdown D, Vail TD, Link TM, Souza RB, Majumdar S: Cartilage T1ρ and T2 relaxation times in patients with mild-moderate hip osteoarthritis. *Arthritis Rheumatology* 2015 Jun;67(6): 1548-1556. [PMID: 25779656]
- Lee S, Nardo L, **Kumar D**, Wyatt C, Souza RB, Lynch J, McCulloch CE, Majumdar S, Lane NE, Link TM: Scoring Hip Osteoarthritis With MRI (SHOMRI): a novel whole joint osteoarthritis evaluation system. *J Magn Reson Imaging* 2015 Jun; 41(6): 1549-1557. [PMCID: PMC4336224]
- Teng HL, MacLeod TD, **Kumar D**, Link TM, Majumdar S, Souza RB: Individuals with isolated patellofemoral joint osteoarthritis exhibit higher mechanical loading at the knee during the second half of the gait cycle. *Clin Biomech* 2015 May; 30(4):383-390. [PMCID: PMC4404202]

14. **Kumar D**, Wyatt C, Chiba K, Lee S, Nardo L, Link TM, Majumdar S, Souza RB: Anatomic correlates of reduced hip extension during walking in individuals with mild-moderate radiographic hip osteoarthritis. *J Ortho Res* 2015 Apr; 33(4): 527-534. [[PMCID: PMC4376613](#)]
15. **Kumar D**, Souza RB, K Subburaj, Macleod TD, Singh J[‡], Calixto NE[‡], Nardo L, Li X, Link TM, Lane NE, Majumdar S: Are there sex differences in knee cartilage composition and walking mechanics in healthy and osteoarthritis populations? *Clin Orthop Rel Res* 2015 Aug; 473(8): 2548-58. [[PMCID: PMC4488198](#)]
16. **Kumar D**, Mcdermott K, Goldman V, Feng H, Luke A, Souza RB, Hecht F: Effects of form-focused training on running biomechanics: A Pilot randomized trial in untrained individuals. *Physical Medicine and Rehab* 2015 Aug; 7(8): 814-22. [[PMCID: PMC4515408](#)]
17. Macleod TD, K. Subburaj, Wu S, **Kumar D**, Wyatt C, Souza RB: Magnetic resonance analysis of loaded meniscus kinematics: a novel technique comparing participants with and without radiographic knee osteoarthritis. *Skeletal Radiol* 2015 Jan; 44(1):125-135. [[PMCID: PMC4256123](#)]
18. Pun SY, **Kumar D**, Lane NE: Review: Femoroacetabular impingement. *Arthritis Rheumatology* 2015 Jan; 67 (1):17-27 [[PMCID: PMC4280287](#)]
19. **Kumar D**, Singh JS[‡], Nardo L, Li X, Link TM, Souza RB, Majumdar S: Physical activity and spatial differences in medial knee T1ρ and T2 relaxation times in knee osteoarthritis *J Ortho Sports Phys Ther* 2014 Dec; 44(12): 964-972. [[PMCID: PMC4476033](#)]
20. **Kumar D**, Kothari A[‡] Souza RB, Wu S[‡], Ma B, Li X: Frontal plane knee mechanics and medial cartilage MR relaxation times in individuals with ACL reconstruction: A pilot study. *Knee* 2014 Oct; 21(5): 881-885 [[PMCID: PMC4175149](#)]
21. Souza RB, **Kumar D**, Calixto N[‡], Singh J[‡], Schooler J[‡], Subburaj K, Li X, Link TM, Majumdar S: Response of knee cartilage T1ρ and T2 relaxation times to *in vivo* mechanical loading in individuals with and without knee osteoarthritis. *Osteoarthritis and Cartilage* 2014 Oct; 22(10): 1367-1376 [[PMCID: PMC4184934](#)]
22. **Kumar D**, Dillon AD[‡], Nardo L, Link TM, Majumdar S, Souza RB: Differences in the association of hip cartilage lesions and cam-type femoroacetabular impingement with movement patterns: A Preliminary Study. *Physical Med and Rehab* 2014 Aug; 6(8): 681-689 [[PMCID: PMC4133316](#)]
23. **Kumar D**, Karampinos DC, Macleod TD, Lin W[‡], Li X, Link TM, Majumdar S, Souza RB: Quadriceps intra-muscular fat fraction rather than muscle size is associated with knee osteoarthritis. *Osteoarthritis Cartilage*. 2014 Feb; 22(2):226-34 [[PMCID: PMC3932784](#)]
24. **Kumar D**, Swanik CB, Reisman D, Rudolph KS: Individuals with medial knee osteoarthritis show short-term neuromuscular adaptation when perturbed during walking in spite of functional and structural limitations. *J Appl Physiol* (1985). 2014 Jan; 116(1):13-23. [[PMCID: PMC3921367](#)]
25. Schooler J[‡], **Kumar D**, Nardo L, McCulloch CM, Li X, Link TM, Majumdar S: Longitudinal evaluation of T1ρ and T2 spatial distribution in osteoarthritis medial knee articular cartilage vs. healthy controls. *Osteoarthritis Cartilage*. 2014 Jan; 22(1):51-62 [[PMCID: PMC3934359](#)]
26. **Kumar D**, K Subburaj, Lin W[‡], Karampinos DC, McCulloch CE, Li X, Souza RB, Link TM, Majumdar S: Quadriceps and hamstrings morphology is related to walking mechanics and knee cartilage MR relaxation times in young adults. *J Orthop Sports Phys Ther*. 2013 Dec;43(12):881-90. [[PMID: 24175607](#)]
27. **Kumar D**, Wyatt C, Lee S, Nardo L, Link TM, Majumdar S, Souza RB: Association of cartilage defects, and other MR findings with pain and function in individuals with mild-moderate radiographic hip osteoarthritis and controls. *Osteoarthritis Cartilage*. 2013 Nov; 21(11):1685-92. [[PMCID: PMC3804140](#)]
28. Valentinitich A, Karampinos DC, Alizai H, K Subburaj, **Kumar D**, Link TM, Majumdar S: Automated unsupervised multi-parametric classification of adipose tissue depots in skeletal muscle. *J Magn Reson Imaging*. 2013 Apr;37(4):917-27. [[PMCID: PMC3573225](#)]
29. **Kumar D**, Manal K, Rudolph K: Knee joint loading during gait in healthy controls and individuals with knee osteoarthritis. *Osteoarthritis Cartilage*. 2013 Feb; 21(2):298-305. [[PMCID: PMC3804122](#)]
30. **Kumar D**, Schooler J, Zuo J, McCulloch CM, Nardo L, Link TM, Li X, Majumdar S: Trabecular bone structure and spatial differences in articular cartilage MR relaxation times. *Osteoarthritis Cartilage*. 2013 Jan;21(1):86-93. [[PMCID: PMC3538917](#)]
31. K Subburaj, **Kumar D**, Alizai H, Li X, Link TM, Souza RB, Majumdar S: Acute effects of running on knee cartilage and meniscus MR relaxation times in young healthy adults. *Am J Sports Med*. 2012 Sep;40(9):2134-41. [[PMCID: PMC3660554](#)]

32. **Kumar D**, Rudolph K, and Manal K: An EMG-Driven modeling approach to muscle force and joint load estimations: Case study in knee osteoarthritis. *J Orthop Res*. 2012 Mar;30(3):377-83. [PMCID: [PMC3250571](#)]
33. Shin CS, Souza RB, **Kumar D**, Wyman BT, Link TM, Majumdar S. In vivo tibiofemoral cartilage-to-cartilage contact area of moderate osteoarthritis subjects under acute loading using MR imaging. *J Magn Reson Imaging*. 2011 Dec;34(6):1405-13. [PMID: [21953771](#)]
34. Mahehwari AV, Malhotra R, **Kumar D**, Pitcher JD: Rupture of the ilio-psoas tendon after a total hip arthroplasty: an unusual case of radio-lucency of the lesser trochanter simulating a malignancy. *J Orthop Surg Res*. 2010 Feb 5;5:6. [PMCID: [PMC2826299](#)]
35. Maheshwari AV, Kounine MM, Soaita M, **Kumar D**, Pitcher JD: Osteoporotic insufficiency fractures of the pelvis in an elderly male simulating a malignancy. *Am J Orthop* (Belle Mead NJ). 2009 Feb;38(2):E45-8. [PMID: [19340388](#)]
36. Aggarwal SR[‡], **Kumar D**: Lower extremity muscle strength and balance performance in Indian Community dwelling elderly men aged 50 years and above. *Indian Journal of Physiotherapy and Occupational Therapy*, 2006 1(1).13-23.

Conference Abstracts (92) ([‡] denotes student/postdoctoral trainee/other trainee)

1. Costello KE[‡], Felson DT, Kolochalama V, Lewis CL, Liu F, Gross D, Segal N, Lewis CE, Nevitt M, **Kumar D**. Flatter ground reaction force patterns are associated with incident knee pain over two years: the multicenter osteoarthritis study. *Osteoarthritis Cartilage* 2020 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Vienna, Austria [poster presentation] [meeting canceled due to COVID-19]
2. Shah N[‡], Kramer J, Borrelli B, **Kumar D**. Sex differences in barriers and facilitators related to physical activity in adults with knee pain. *Osteoarthritis Cartilage* 2020 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Vienna, Austria [poster presentation] [meeting canceled due to COVID-19]
3. **Kumar D**, Costello CE[‡], Segal N, Williams GN, Liu F, Gross D, Lewis CE, Nevitt M, Lewis CL, Felson DT. Lower quadriceps power is related with flatter ground reaction force patterns during walking in women: the Multicenter Osteoarthritis Study. *Osteoarthritis Cartilage* 2020 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Vienna, Austria [poster presentation] [meeting canceled due to COVID-19]
4. **Kumar D**, Peloquin C, Aoyagi K, Marinko L, Camarinos J, Dubreuil M, Neogi T. Physical therapy and opioid utilization following total knee replacement. *Osteoarthritis Cartilage* 2020 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Vienna, Austria [poster presentation] [meeting canceled due to COVID-19]
5. Endrighi R., Zhao Y., **Kumar D.**, Hughes R.B., and Borrelli B. Changes in Physical and Mental Health-Related Quality of Life After Quitting Smoking in Individuals with Mobility Impairments. Society of Behavioral Medicine 41st Annual Meeting & Scientific Sessions, San Francisco, CA, April 1-4, 2020 [poster presentation] [meeting canceled due to COVID-19]
6. **Kumar D**, Peloquin C, Stokes A, Markino LN, Camarinos J, Felson DT, Dubreuil M. Physical therapy is associated with reduced opioid utilization in people with knee osteoarthritis. *J Orthop Sports Physical Therapy* 2020 Jan American Physical Therapy Association Combined Sections Meeting, Denver, CO [platform presentation]
7. **Kumar D**, Peloquin C, Stokes A, Markino LN, Camarinos J, Felson DT, Dubreuil M. Physical therapy and opioid use in knee osteoarthritis. *Arthritis Rheumatol* 2019 Nov. American College of Rheumatology Annual Meeting, Atlanta, GA [platform presentation]
8. **Kumar D**, Peloquin C, Markino LN, Camarinos J, Dubreuil M, Felson DT. Physical therapy and utilization of intra-articular therapies in knee osteoarthritis: preliminary findings from a large insurance database. *Osteoarthritis Cartilage* 2019 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Toronto, Canada [poster presentation]
9. **Kumar D**, Costello KE[‡], Neogi T, Lewis CE, Segal D, Gross D, Nevitt M, Lewis CL, Felson DT. Sex and race related differences in ground reaction forces during walking and interactions with knee pain and osteoarthritis in a larger cohort. *Osteoarthritis Cartilage* 2019 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Toronto, Canada [poster presentation]

10. **Kumar D**, Costello KE[‡], Chan D, Tanaka M, Souza RB, Ma CB, Li X. Longitudinal changes in gait waveforms with ACL reconstruction. *Osteoarthritis Cartilage* 2019 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Toronto, Canada [poster presentation]
11. Costello KE[‡], Felson DT, Neogi T, Segal N, Lewis CE, Gross KD, Nevitt M, Lewis CL, **Kumar D**. Ground reaction force patterns in knees with and without pain and radiographic osteoarthritis. *Osteoarthritis Cartilage* 2019 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Toronto, Canada [poster presentation]
12. Brown CB[‡], Marinko LM, LaValley MP, **Kumar D**. Quadriceps strength following ACL Reconstruction Compared to Matched Uninjured Controls: A Systematic Review and Meta-analysis. 2019 Jan; American Physical Therapy Association Combined Sections Meeting (podium presentation)
13. Osipow J[‡], Geronimo A[‡], Willard T[‡], Lin CJ[‡], Brus V[‡], Ricahrds J, **Kumar D**. Validation of wearable sensors for assessment of varus thrust in knee osteoarthritis. 2019 Jan; American Physical Therapy Association Combined Sections Meeting (poster presentation)
14. **Kumar D**, Kramer J, Lee B[‡], Patel J[‡], Geronimo A[‡], Borrelli B. Development of a Theory-based Mobile Health Physical Activity Intervention for Knee Osteoarthritis. 2019 Jan; American Physical Therapy Association Combined Sections Meeting (poster presentation)
15. **Kumar D**, Tanaka M, Chan DL[‡], Mamoto K, Simuzu T, Souza RB, Neumann J, Ma CB, Link TM, Li X. Increase in joint loading during walking after ACL reconstruction is related to early knee degeneration. 2019 Jan; American Physical Therapy Association Combined Sections Meeting (Submitted)
16. **Kumar D**, LaValley MP, Beavers DP, Guerhazi A, Eckstein F, Hunter D, DeVita P, Messier SP: Increase in patellofemoral loading is not associated with worsening symptoms or structure: Secondary analysis from the IDEA trial. *Osteoarthritis Cartilage* 2018 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Liverpool, UK [podium presentation]
17. **Kumar D**, Tanaka M, Ma CB, Souza RB, Li X Early Post-traumatic Knee Osteoarthritis and Loading during Walking after Anterior Cruciate Ligament Reconstruction. *J Orthop Sports Physical Therapy* 2018 Jan; 48 (1) American Physical Therapy Association Combined Sections Meeting, New Orleans, Las Vegas, NV [podium presentation]
18. **Kumar D**, Brus V[‡], Lin CJ[‡], Osipow J[‡], Geronimo A[‡], Richards J. Wearable Sensors for Assessment of Varus Thrust in Knee Osteoarthritis: A Proof of Concept. American Society of Biomechanics Annual Meeting, Rochester, MN, 2018 [poster presentation]
19. **Kumar D**, Beavers D, DeVita P, Messier S. Effects of weight-loss on patellofemoral loading in overweight and obese adults with patellofemoral osteoarthritis: Secondary analysis from the IDEA randomized trial. *Osteoarthritis Cartilage* 2017 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Las Vegas, NV [poster presentation]
20. **Kumar D**, Link TM, Majumdar S, Souza RB. Vastus medialis intramuscular fat is associated with increase in MRI degeneration of the knee over 3-years. *Osteoarthritis Cartilage* 2017 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Las Vegas, NV [poster presentation]
21. **Kumar D**, Tanaka M, Ma B, Souza RB, Li X. Degeneration of patellofemoral and tibiofemoral compartments following ACL reconstruction and associated gait mechanics: a longitudinal 2-year study. *Osteoarthritis Cartilage* 2017 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Las Vegas, NV [poster presentation]
22. **Kumar D**. Knee loading is lower during mindful walking compared to regular walking: A preliminary study. *Osteoarthritis Cartilage* 2017 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Las Vegas, NV [poster presentation]
23. **Kumar D**. mHealth tool to support assessment of Community-based mindful walking knee OA. Delaware CTR ACCEL Annual Meeting, Newark, DE, 2017 [podium presentation]
24. **Kumar D**, Segev S[‡], Calixto N[‡], Nardo L, Li X, Link TM, Majumdar S, Souza RB: Abnormal tibiofemoral contact kinematics are related to superficial cartilage damage. *Osteoarthritis Cartilage* 2016 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Amsterdam, Netherlands [poster presentation]
25. Atkinson S[‡], Krug R, **Kumar D**: Lean area and intramuscular fat fraction of hip abductors in HIV-infected and uninfected older men. *J Orthop Sports Physical Therapy* 2016 Jan; 46 (1) American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV [poster presentation]
26. **Kumar D**, Souza RB, Su F, Wu D, Padoia V, Ma B, Li X: Longitudinal changes in frontal plane mechanics and early cartilage degenerations in people with ACL reconstruction. *J Orthop Sports Physical Therapy*

- 2016 Jan; 46 (1) American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV [podium presentation]
27. Gallo M[‡], Pedroia V, Wyatt C, **Kumar D**, Link TM, Souza RB, Majumdar S: Voxel based T1 ρ and T2 relaxation times are associated with hip osteoarthritis progression. *Proceedings of the Orthopedic Research Society*, Orlando, FL 2016 [podium presentation]
 28. **Kumar D**, Wyatt C, Okazaki N, Chiba C, Lee S, Link TM, Souza RB, Majumdar S: Demographic and biomechanical factors related to structural progression of hip osteoarthritis over 18 months. *Osteoarthritis Cartilage* 2015 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Seattle, WA [poster presentation]
 29. **Kumar D**, Wise B, Majumdar S, Souza RB, Lane NE: Vibratory deficits in individuals with and without mild-moderate radiographic hip osteoarthritis. *Osteoarthritis Cartilage* 2015 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Seattle, WA [poster presentation]
 30. Segev S[‡], **Kumar D**, Nardo L, Link TM, Majumdar S, Souza RB: Abnormal tibiofemoral contact mechanics in subjects with medial and lateral compartment articular cartilage lesions. *Osteoarthritis Cartilage* 2015 Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Seattle, WA [poster presentation]
 31. Calixto NE[‡], Nardo L, **Kumar D**, Souza RB, Li X, Link TM, Majumdar S: Examining the relationships between degenerative anterior cruciate ligament lesions and patellofemoral cartilage integrity with quantitative magnetic resonance imaging parameters. *Osteoarthritis Cartilage* 2015. Apr; (Suppl). Osteoarthritis Research Society International Annual Meeting, Seattle, WA [poster presentation]
 32. **Kumar D**, Majumdar S, Souza RB, Hecht FM: Short-Term Changes with Weight-Loss in MRI Markers of Knee Cartilage Composition & Quadriceps Adiposity, & Serum Markers of Adiposity & Inflammation: a Pilot Study. *Proceedings of the ISMRM 8th International Workshop on Imaging Based Measures of Osteoarthritis*, Pacific Grove, CA Sep 2015 [poster presentation]
 33. **Kumar D**, Schafer A, Heilmeyer U, Li X, Kazakia G: Change in Knee Cartilage T1 ρ & T2 Relaxation Times with Roux-en-Y Gastric Bypass Surgery in Women: a Feasibility Study. *Proceedings of the ISMRM 8th International Workshop on Imaging Based Measures of Osteoarthritis*, Pacific Grove, CA Sep 2015 [poster presentation]
 34. Pedroia V, Su F, **Kumar D**, Souza RB, Ma BC, Li X, Majumdar S: T1 ρ voxel based relaxometry for the local evaluation of the knee cartilage. *Proceedings of the International Society for Magnetic Resonance in Medicine*, Toronto, CA, 2015 [podium presentation]
 35. Calixto NE[‡], **Kumar D**, Karupppasamy S, Singh JS[‡], Schooler J[‡], Nardo L, Li X, Souza RB, Link TM, Majumdar S: T1 ρ MRI in Cartilage of Non-Osteoarthritis Knees with and without Posterior Meniscus Lesions. *Proceedings of the Orthopaedic Research Society Annual Meeting, 2015, Las Vegas, NV* [podium presentation]
 36. Calixto NE[‡], Nardo L, **Kumar D**, Souza RB, Li X, Link TM, Majumdar S: Using the ratio of T1 ρ and T2 MR parameters to examine the relationship between anterior cruciate ligament (ACL) defects and patellofemoral cartilage integrity. *Proceedings of the International Society for Magnetic Resonance in Medicine*, Toronto, Canada, 2015 [poster presentation]
 37. **Kumar D**, Nardo L, Calixto NE[‡], Singh J[‡], Link TM, Majumdar S: Vigorous but not moderate physical activity is related to structural progression of knee osteoarthritis over one year. *Osteoarthritis Cartilage* 2014 Apr; 22(Suppl). Osteoarthritis Research Society International Annual Meeting, Paris, France [podium presentation]
 38. **Kumar D**, MacLeod TD, K Subburaj, Singh J[‡], Calixto NE[‡], Li X, Link TM, Majumdar S, Souza RB: Walking knee loads show opposite association with cartilage composition in people with knee OA compared to young healthy subjects. *Osteoarthritis Cartilage* 2014 Apr; 22(Suppl). Osteoarthritis Research Society International Annual Meeting, Paris, France [poster presentation]
 39. **Kumar D**, Wyatt C, Chiba K, Lee S, Link TM, Majumdar S, Souza RB: Anatomic correlates of reduced hip extension during walking in mild-moderate radiographic hip osteoarthritis. *Osteoarthritis Cartilage* 2014 Apr; 22(Suppl). Osteoarthritis Research Society International Annual Meeting, Paris, France [poster presentation]
 40. Lansdown D, **Kumar D**, Wyatt C, Souza RB, K Subburaj, Lee S, Nardo L, Link TM, Majumdar S, Vail TP: Quantitative cartilage imaging and patient-reported outcome measures for four common findings of femoroacetabular impingement. *Osteoarthritis Cartilage* 2014 Apr; 22(Suppl). Osteoarthritis Research Society International Annual Meeting, Paris, France [poster presentation]

41. Calixto NE[‡], **Kumar D**, K Subburaj, Singh JS[‡], Schooler J[‡], Nardo L, Souza RB, Link TM, Majumdar S: Medial meniscus posterior horn zones show different response to static loading in subjects with knee osteoarthritis compared to controls. *Osteoarthritis Cartilage* 2014 Apr; 22(Suppl). Osteoarthritis Research Society International Annual Meeting, Paris, France [poster presentation]
42. **Kumar D**, Macleod TD, Li X, Link TM, Majumdar S, Souza RB: Relationships between cartilage MR relaxation times and structural, functional and biomechanical outcomes in knee osteoarthritis. *J Orthop Sports Physical Therapy* 2014 Jan; 44 (1): A23. American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV [poster presentation]
43. **Kumar D**, Lai A, Korn N, Noworolski S, Majumdar S, Hecht F, Souza RB: Effect of weight loss on knee cartilage MR relaxation times, disability and systemic and thigh adiposity. *J Orthop Sports Physical Therapy* 2014 Jan; 44 (1): A143. American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV [poster presentation]
44. Lee S, Nardo L, Heilmeyer U, **Kumar D**, Kretzchmar M, Yu A, Majumdar S, Lane NE, Link TM: How common are hip labral tears? Comparison of individuals with and without hip symptoms. European Congress of Radiology, Vienna, Austria, 2014 [podium presentation]
45. Wyatt CB, **Kumar D**, Karupppasamy S, Narayanan D, Lee S, Nardo L, Link TM, Vail T, Souza RB, Majumdar S: Hip T1rho and T2 Relaxation Times in Individuals with and Without Cartilage Lesions. Proceedings of the International Society for Magnetic Resonance in Medicine, Milan, Italy, 2014 [poster presentation]
46. Wyatt CB, Kretzchmar M, **Kumar D**, Karupppasamy S, Link TM, Vail T, Souza RB, Majumdar S: Quantitative VTE-T2* Imaging of the Hip Labrum. Proceedings of the International Society for Magnetic Resonance in Medicine, Milan, Italy, 2014 [poster presentation]
47. Yang H, Pedita V, Riviere J, Zhang Y, **Kumar D**, Link TM, Ma B, X Li: MR T1rho quantification of knee cartilage lesion: correlated with arthroscopic evaluation. European Congress of Radiology, Vienna, Austria, 2014 [podium presentation]
48. **Kumar D**, McDermott K, Feng H, Goldman V, Luke A, Souza RB, Hecht F: Effect of Training in Chi-running on Running Biomechanics. *Med Sci Sports Exerc* 2013 45(5) American College of Sports Medicine Annual Meeting, Indianapolis, IA [poster presentation]
49. **Kumar D**, Karampinos K, Lin W[‡], Macleod T, Nardo L, Subburaj K, Singh J, Link TM, Majumdar S, Souza RB: Association of thigh muscle morphology, intramuscular fat and strength with knee meniscus and cartilage lesions, radiographic osteoarthritis, and disability. *J Orthop Sports Physical Therapy* 2013 Jan;43 (1): A28. American Physical Therapy Association Combined Sections Meeting, San Diego, CA [podium presentation]
50. Mohan G, Schooler J, **Kumar D**, Link TM, Majumdar S. Responsiveness of compartment-specific quantitative cartilage MRI measures in knee OA patients. *Osteoarthritis Cartilage* 2013 Apr; 21(Suppl): S187. Osteoarthritis Research Society International Annual Meeting, Philadelphia, PA [poster presentation]
51. Macleod TD, **Kumar D**, Subburaj K, Wu S, Li X, Link TM, Majumdar S, Souza RB: Magnetic Resonance Analysis of Loaded Meniscus Kinematics and Tibiofemoral Contact Area. *J Orthop Sports Physical Therapy* 2013 Jan; 43 (1): A110. American Physical Therapy Association Combined Sections Meeting, San Diego, CA [poster presentation]
52. Lee S, Nardo L, Lai A, **Kumar D**, Wyatt CR, Souza RB, Lane NE, Majumdar S, Link TM: Scoring Hip Abnormalities using MR images (SHAMRI): a Novel Hip Whole Joint Osteoarthritis Evaluation System. *Osteoarthritis Cartilage* 2013 Apr; 21(Suppl): S 221-222. Osteoarthritis Research Society International Annual Meeting, Philadelphia, PA [podium presentation]
53. Schooler J[‡], **Kumar D**, Li X, Link TM, Majumdar S: The Relationship between Pain and MR Relaxation in Knee Articular Cartilage. *Osteoarthritis Cartilage* 2013 Apr; 21 (Suppl):S194-195. Osteoarthritis Research Society International Annual Meeting, Philadelphia, PA [poster presentation]
54. Singh J[‡], Schooler J[‡], **Kumar D**, Subburaj K, Nardo L, Stiers KB[‡], Li X, Link TM, Souza RB, Majumdar S: Evaluation of T1p Relaxation Times in Meniscal Tears during Static Loading. *Osteoarthritis Cartilage* 2013 Apr; 21(Suppl): S186. Osteoarthritis Research Society International Annual Meeting, Philadelphia, PA [poster presentation]
55. McDermott K, Goldman V, Feng H, **Kumar D**, Mehling W, Souza RB, Luke A, Hecht F: A Pilot Randomized Control Trial of ChiRunning: The Running Against Pre-Hypertension Trial (RAPT). *Proceedings of the International Council of Complementary Medicine Research*, London, UK, 2013 [podium presentation]

56. Schooler J[‡], **Kumar D**, Li X, Link TM, Majumdar S: The Effect of Bone Marrow Edema on Knee Articular Cartilage Lamellar MR Relaxation Time. *Proceedings of the International Society for Magnetic Resonance in Medicine*, Salt Lake City, UT, 2013 [poster presentation]
57. Lee S, Nardo L, Lai A, **Kumar D**, Wyatt CR, Souza RB, Lane NE, Majumdar S, Link TM: Scoring Hip Abnormalities using MR images (SHAMRI): a Novel Hip Whole Joint Osteoarthritis Evaluation System. *Proceedings of the European College of Rheumatology*, Vienna, Austria, 2013 [podium presentation]
58. **Kumar D**, Dillon AB[‡], K Subburaj, Link TM, Li X, Majumdar S, Souza RB: MRI T1rho Relaxation Times at 3-Tesla and Functional Loading at the Hip in Femoroacetabular Impingement. *Proceedings of the Orthopedic Research Society*, San Antonio, TX 2013 [poster presentation]
59. Wyatt CR, **Kumar D**, Subburaj K, Lian T, Narayanan D, Li X, Vail TP, Link TM, Souza RB, Majumdar S. Quantitative T1p/T2 imaging of hip cartilage at 3T in patients with OA and FAI. *Proceedings of the Orthopedic Research Society*, San Antonio, TX 2013 [poster presentation]
60. Romero A, Keller D, **Kumar D**, Hoppe M, Liu Y, MacLeod TD, Souza RB: Six minute walk test in patients with radiographic knee osteoarthritis: a cohort cross-sectional study. *California Physical Therapy Association Annual Conference*, Pasadena, CA, 2013 [poster presentation]
61. **Kumar D**, K. Subburaj; Alizai H, Wu S[‡], Neel N[‡], Bauer K[‡], Luke A, Li X, Majumdar S, Link TM, Souza RB: Walking Mechanics, Cartilage Morphology and Composition in Young Healthy Subjects with Knee Varus. *J Orthop Sports Physical Therapy* 2012 Jan; 42 (1) : A31. American Physical Therapy Association Combined Sections Meeting, Chicago, IL [podium presentation]
62. **Kumar D**, K Subburaj, Lin W[‡], Alizai H, Wu S[‡], Bauer K[‡], Neel N[‡], Luke A, Li X, Majumdar S, Souza RB, Link TM: Static and dynamic alignment, muscle balance and cartilage composition in young adults. *Osteoarthritis Cartilage* 2012 Apr; 20 (Suppl): S98-99. Osteoarthritis Research Society International Annual Meeting, Barcelona, Spain [poster presentation]
63. **Kumar D**, K Subburaj, Link TM, Souza RB, Majumdar S: Muscle Imbalance, Functional Loading and Cartilage Composition at the Knee. *Med Sci Sports Exerc* 2012 Vol 44:5 (Supp). American College of Sports Medicine Annual Meeting, San Francisco, CA [poster presentation]
64. Dillon AB[‡], **Kumar D**, Luke A, Link TM, Souza RB, Majumdar S: Hip Function in Femoroacetabular Impingement. *Med Sci Sports Exerc* 2012 Vol 44:5 (Supp). American College of Sports Medicine Annual Meeting, San Francisco, CA [poster presentation]
65. **Kumar D**, K Subburaj, Li X, Link TM, Souza RB, Majumdar S: Association of MR Relaxation Times with Muscle Morphology and Functional Loading at the Knee. *OA Biomarker Global Initiative, OARSI*, Hilton Head, SC, 2012. [podium presentation]
66. K Subburaj, **Kumar D**, Li X, Link TM, Souza RB, Majumdar S: Effect of Static- and Cyclic-Loading on Meniscus MR Relaxation Times. *Proceedings of the International Society for Magnetic Resonance in Medicine*, Melbourne, Australia, 2012. [poster presentation]
67. Wu S[‡], **Kumar D**, Karupppasamy S, Jungmann P, Nardo L, Luke A, Link TM, Majumdar S, Li X, Souza RB: Age related changes in T1rho and T2 relaxation times of knee cartilage. *Proceedings of the Orthopedic Research Society*, San Francisco, CA 2012. [poster presentation]
68. **Kumar D**, K. Subburaj; Alizai H, Wu S[‡], Neel N[‡], Bauer K[‡], Luke A, Li X, Majumdar S, Link TM, Souza RB: Articular and meniscal cartilage respond differently to functional loading. *Proceedings of the Orthopedic Research Society*, San Francisco, CA 2012 [poster presentation]
69. Kothari A[‡], Souza RB, Wu S, **Kumar D**, Ma B, Li X: Abnormal joint kinematics may accelerate degeneration of ACL reconstructed knees: correlation of MR T1rho and motion analysis. *Proceedings of the Orthopedic Research Society*, San Francisco, CA 2012 [poster presentation]
70. Macleod TD, **Kumar D**, Subburaj K, Wu S, Li X, Link TM, Majumdar S, Souza RB: Magnetic Resonance Imaging of Meniscal Translation and Tibiofemoral Contact Area in Knee Flexion. *California Physical Therapy Association Annual Conference*, Santa Clara, CA, 2012 [poster presentation]
71. **Kumar D**, Karampinos K, Lin W[‡], Macleod T, Nardo L, Subburaj K, Singh J, Link TM, Majumdar S, Souza RB: Functional Impairments in Knee Osteoarthritis and Intramuscular Fat Infiltration of Thigh Muscles. *Annual Imaging Research Symposium*, University of California San Francisco, San Francisco, CA, 2012 [poster presentation]
72. **Kumar D**, Zarins Z, Schooler J, Virayavanich W, Li X, Link T, Majumdar S. Frontal Plane Malalignment and Cartilage T1p and T2 relaxation times in people with knee osteoarthritis. *Osteoarthritis Cartilage* 2011 Apr; 19 (Suppl) S 176. Osteoarthritis Research Society International Annual Meeting, San Deigo, CA [poster presentation]

73. **Kumar D**, Zarins Z, Schooler J, Li X, Link T, Majumdar S: Meniscal Tears are Associated with Underlying Cartilage and Trabecular Bone Changes. *Osteoarthritis Cartilage* 2011 Apr; 19 (Suppl 1)S 164-165. Osteoarthritis Research Society International Annual Meeting, San Deigo, CA [poster presentation]
74. Rudolph KS, **Kumar D**, Reisman D. Neuromuscular Adaptation in Medial Knee Osteoarthritis. *Osteoarthritis Cartilage* 2011 Apr; 19 (Suppl 1)S 210-211. Osteoarthritis Research Society International Annual Meeting, San Deigo, CA [poster presentation]
75. K Subburaj, **Kumar D**, Alizai H, Souza RB, Majumdar S. Acute Effect of Running on Knee Cartilage MR Relaxation times in Young Healthy Adults. *Osteoarthritis Cartilage* 2011 Apr; 19 (Suppl 1)S 184-185. Osteoarthritis Research Society International Annual Meeting, San Deigo, CA [poster presentation]
76. Winters JD, **Kumar D**, Swanik CB, Rudolph KS: Rate of muscle force development and instability in knee osteoarthritis. *Med Sci Sports Exerc* 2011, Vol 43:5 (Supp). American College of Sports Medicine Annual Meeting, Denver, CO. [poster presentation]
77. Dillon AB[‡], **Kumar D**, Luke A, Link TM, Souza RB, Majumdar S: The Effect of Femoroacetabular Impingement on Hip Function Assessed By 3D Motion Analysis. *Annual Imaging Research Symposium*, University of California San Francisco, San Francisco, CA, 2011 [poster presentation]
78. **Kumar D**, K Subburaj, Li X, Link TM, Souza RB, Majumdar S Walking Mechanics, Cartilage Morphology and Composition in Young Healthy Subjects with Knee Varus. *Annual Imaging Research Symposium*, University of California San Francisco, San Francisco, CA, 2011 [poster presentation]
79. **Kumar D**, Rudolph KS, Manal KT: Medial and Lateral Articular Loading Strategies in Knee Osteoarthritis. *Proceedings of the Orthopedic Research Society*. New Orleans, LA, march 2010 [poster presentation]
80. **Kumar D**, Rudolph KS, Manal K: Articular Loading at the Knee in People with Osteoarthritis. *Center for Biomedical Engineering and Research Day*, University of Delaware. Newark, DE. May 2010. [podium presentation]
81. **Kumar D**, Rudolph KS: Neuromuscular Control of the Knee in People with Knee OA. *J Orthop Sports Physical Therapy* 2009 39 (1) A 52. American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV [poster presentation]
82. **Kumar D**, Rudolph KS, Manal KT: Muscle Force in Walking in Medial Knee Osteoarthritis. *Proceedings of the Orthopedic Research Society*. Las Vegas, NV. February, 2009 [poster presentation]
83. **Kumar D**, Rudolph KS, Manal K: An EMG-Driven Musculoskeletal Modeling Approach to Estimate Articular Loading at the Knee. *Center for Biomedical Engineering and Research Day*, University of Delaware. May 2009. [poster presentation]
84. **Kumar D**, Reisman DR, Rudolph KS: Adaptation to Repeated Perturbations in Medial Knee Osteoarthritis. *Proceedings of the Society for Neuroscience*. Washington, DC. November, 2008. [poster presentation]
85. **Kumar D**, Rudolph KS, Manal KT. Force changes in Vastus Medialis during gait: Relationship with EMG and impact on co-contraction estimates- a proof of concept. *Computational Methods in Orthopedic Biomechanics. Pre-ORS Symposium*. San Francisco, CA. March, 2008. [podium presentation]
86. **Kumar D**, Schmitt LC, Rudolph KS. Influence of Self-Reported Instability on Neuromuscular Responses in People with Medial Knee Osteoarthritis. *Proceedings of the Orthopedic Research Society*, San Francisco, CA. March, 2008. [poster presentation]
87. **Kumar D**, Reisman DR, Rudolph KS: Proactive and Reactive Responses to Repeated Perturbations in Knee Osteoarthritis. *Annual Neuromuscular Plasticity Symposium*. University of Florida, Gainesville, FL. Dec 2008. [poster presentation]
88. **Kumar D**, Reisman D, Rudolph KS: Adaptation to Perturbed Walking in People with Knee Osteoarthritis. *Center for Biomedical Engineering and Research Day*, University of Delaware. Newark, DE. May 2008. [podium presentation]
89. Hinsey M[‡], Swanik CB, Rudolph KS, **Kumar D**: Knee Joint Stiffness Between Healthy and Osteoarthritis Subjects. *Center for Biomedical Engineering and Research Day*, University of Delaware. Newark, DE, 2008. [poster presentation]
90. Rudolph KS, **Kumar D**: Adaptation during Disturbed Walking In Medial Knee Osteoarthritis and Healthy: A Case Comparison. *Center for Biomedical Engineering and Research Day*, University of Delaware, 2007. [poster presentation]
91. Rudolph KS, White J, **Kumar D**, Sun JQ. Use of a Smart Knee Brace to Challenge Walking. *Innovations in Balance and Locomotor Rehabilitation: The Translation from Fundamental Science to*

Clinical Applications. *The Jewish Rehabilitation Hospital and the Gustav Levinschi Foundation*. Montreal, Quebec July 13, 2007. [poster presentation]

92. Veqar Z, **Kumar D**: Role of a sensorimotor training and a cervical stabilization exercise program in the correction of forward head posture in male visual display unit operators, *Gait & Posture* 2005;21 (S1): S135. International Society for Postural and Gait Research Meeting, Marseilles, France [poster presentation]

Conference Workshops

1. **Kumar D**: Systemic Approach: What functional measures can tell us about early OA? Part of Workshop on "Towards a Consensus Definition of Early Osteoarthritis". OARSI Young Investigator Pre-Congress Workshop, Osteoarthritis Research Society International Annual Meeting, Vienna, Austria [*meeting canceled due to COVID-19*]
2. **#Kumar D**, Souza RB, Ward SR, Warden SJ: Response of Cartilage, Bone, and Muscle to Functional Loading: Applications for the Clinic. *American Physical Therapy Association Combined Sections Meeting*, 2014. Research Section Basic Course. (# - Equal contribution from all authors)

Published Courses, Book Chapters, Etc.

1. Misra D, **Kumar D**, Neogi T: Treatment of Osteoarthritis. *Kelley and Firestein's Textbook of Rheumatology, 11th edition (in press)*
2. **Kumar D**, Seitz A: Clinical Imaging: Imaging of the Extremities, Independent Study Course 27.3.2, Orthopaedic Section, APTA, 2017

Invited Professional Talks

1. "mHealth Physical Activity Intervention for People with Knee Osteoarthritis and Comorbidities", High Tech and High Touch: Digital Innovations, Research On Tap, Boston University, March 20, 2019
2. "Mindful Movement and Knee Osteoarthritis", ChiRunning Instructor Weekend, Charlotte, NC, November 10, 2018]
3. "mHealth Solutions for Monitoring and Enhancing Physical Activity in People with Knee Osteoarthritis", Mobile and Electronic Health ARC (ME-ARC) Presentation, GDSM Science Day, Boston University Dental School, March 15 2018
4. "Mechanics, Tissue Health, and Disability in Osteoarthritis", Orthopaedic Biomechanics, Northeastern University, March 27, 2018
5. "Osteoarthritis: Mechanics, Tissue, and Function", Orthopaedic Biomechanics, Northeastern University, March 27, 2017
6. "Movement & Applied Imaging Lab", Quailsys User Group Meeting, BU Sargent College, March 24, 2017
7. "Rehabilitation Approaches in Knee Osteoarthritis", Osteoarthritis and Pain Symposium, Boston University School of Medicine, December 20, 2017
8. "Early Identification and Early Intervention in Osteoarthritis: From Tissue to Function", Division of Rheumatology, Tufts University School of Medicine, August 29, 2017
9. "Osteoarthritis: Mechanics, Tissue, and Function", Orthopaedic Biomechanics, Northeastern University, March 21, 2017
10. "Muscle size, adiposity, and function in osteoarthritis. Skeletal Muscle in health, disease, and therapy", P30/P50 Skeletal Muscle Symposium, University of California, San Francisco, March 13, 2017
11. "Movement & Applied Imaging Lab", Spring SCERCH Symposium, Boston University, March 2, 2017
12. "mHealth aid for interventions to improve quantity and quality of physical activity: Work in Progress", mHealth-Pre ARC, Boston University, October 17, 2016
13. "Quantifying movement and tissue health to improve function in osteoarthritis", Health and Disability Research Institute, Boston University School of Public Health, October 11, 2016
14. "Grand Rounds", Physical Therapy and Human Movement Sciences, Feinberg School of Medicine, Northwestern University, Chicago, IL, May 14th, 2015

Community Talks

1. “Knee osteoarthritis: What you “kneed” to know!”, Brookline Council on Aging, Brookline, MA, May 14, 2018
2. “Self-Management of knee pain”, Peterborough Senior Center, Boston, MA. December 14, 2017
3. “Knee osteoarthritis: What you “kneed” to know!”, Stonestown Family YMCA, San Francisco, CA, October 12, 2011
4. “Hip Osteoarthritis: Be “hip” about your hip!”, Stonestown Family YMCA, San Francisco, CA, November 30, 2011
5. Multiple presentations on knee osteoarthritis at Senior Center and YMCA location in Newark, DE (2006-2010)

Teaching (*indicates new course development)

Boston University

SAR PT520 Functional Anatomy – Lecture on “Gait” (graduate, 85 students)	Summer 2020
HP 891 Movement Science Seminar, Co-instructor of record, (graduate, 2 credit, 6 students)	Spring 2020
*SAR RS 911 K3 Directed Research, Instructor of record (graduate, 3 credit, 1 student)	Spring 2020
*HP 891 Movement Science Seminar – Co-Instructor of record (graduate, 2 credit, 6 students)	Fall 2019
SAR HP151 Introductions to Health Professions, , Instructor of record (undergraduate, 2 credit, 12 students)	Fall 2019
*SAR RS 911 K3 Directed Research, Instructor of record (graduate, 2 credit, 1 student)	Fall 2019
SAR PT634 Diagnostic Procedures for Rehabilitation Professionals- Lecture on Hip and Knee Imaging (<i>graduate, 85 students</i>)	Fall 2019
SAR PT520 Functional Anatomy – Lecture on “Gait” (graduate, 85 students)	Summer 2019
SAR HP727 Instrumentation for Analysis of Motion, Instructor of record (graduate, 4 credit, 9 students)	Spring 2019
SAR HP151 Introductions to Health Professions, Instructor of record (undergraduate, 2 credit, 8 students)	Fall 2018
*SAR RS 911 K3 Directed Reading, Instructor of record (graduate, 3 credit, 2 students)	Fall 2018
SAR PT634 Diagnostic Procedures for Rehabilitation Professionals- Lecture on Hip and Knee Imaging (<i>graduate, 85 students</i>)	Fall 2018
SAR RS890 Doctoral Seminar in Rehabilitation Sciences – Lecture on “How to find a postdoc”	Fall 2017
* SAR PT781 Academic Practicum II, Faculty mentor, (graduate, 3 credit, 1 student)	Fall 2018
SAR PT520 Functional Anatomy – Lecture on “Gait” (graduate, 85 students)	Summer 2017
* SAR PT781 Academic Practicum I, Faculty mentor, (graduate, 1 credit, 1 student)	Spring 2017
*SAR HP727 Instrumentation for Analysis of Motion, Instructor of record (graduate, 4 credit, 6 students)	Spring 2017
*SAR RS890 Doctoral Seminar in Rehabilitation Sciences, , Co-Instructor of record (graduate, 2 credit, 13 students)	Fall 2016

Medical University of South Carolina

Orthopaedic Residency for Physical Therapists – Lecture on “Osteoarthritis” (2 students)	Summer 2016
Evidence Based Practice IV (graduate, 2 credit, 1 student)	Spring 2016
PT728 Imaging and Electrodiagnosis – Lectures on “Knee Imaging”, “ Hip Imaging” (graduate, 35 students)	Fall 2015
Evidence Based Practice IV, Faculty mentor, (graduate, 2 credit, 3 students)	Spring 2015
* PT766 Evidence Based Practice III, , Instructor of record (graduate, 2 credit, 8 students)	Fall 2015

University of California, San Francisco

Masters in Biomedical Imaging, Department of Radiology and Biomedical Imaging Lecture on Loading and Cartilage, (graduate, 12 students)	Spring 2014
PT209-910 Evidence Based Practice, Faculty mentor (graduate, 1 student)	Spring 2013
PT741 Musculoskeletal Pathokinesiology - Lecture on Human Gait (graduate, 30 students)	Fall 2012
PT209-910 Evidence Based Practice, Faculty mentor (graduate, 1 student)	Spring 2012
PT210 Radiology for Physical Therapists - Lecture on Radiography, Lecture on Cartilage Imaging (graduate, 30 students)	Fall 2011
PT209-910 Evidence Based Practice, Faculty mentor (graduate, 1 student)	Spring 2011
PT209-910 Evidence Based Practice, Faculty mentor (graduate, 1 student)	Spring 2010

University of Delaware

PHYT604 Functional Anatomy and Biomechanics, Lecture on Normal Human Gait, Lecture on Pathological Human Gait (graduate, 52 students)	Fall 2009
BMSC667 EMG Theory and Practice, Lab Instructor (graduate, 8 students)	Summer 2008

Jamia Hamdard, New Delhi, India

Musculoskeletal Physical Therapy and Biomechanics, Visiting Lecturer for Gait Mechanics, Tissue Mechanics, Biomechanics of Prosthetics and Orthotics, Implant Mechanics (graduate, 8 students)	2005
Musculoskeletal Physical Therapy and Biomechanics, Visiting Lecturer for Gait Mechanics, Tissue Mechanics, Biomechanics of Prosthetics and Orthotics, Implant Mechanics (graduate, 8 students)	2004
Musculoskeletal Physical Therapy and Biomechanics, Visiting Lecturer for Gait Mechanics, Tissue Mechanics, Biomechanics of Prosthetics and Orthotics, Implant Mechanics (graduate, 8 students)	2003

Pt. D.D.U.I.P.H, Delhi University, New Delhi, India

Multiple courses for students with academic difficulties, Tutor for Musculoskeletal PT, Neurologic PT, Cardiopulmonary PT, Pediatric PT	2003-2004
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Research Advising

Junior Faculty

Kathryn Bacon, PhD <i>Grant co-mentor</i>	2019-Present
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Postdoctoral Trainees

Kerry Costello, PhD <i>Primary Mentor</i>	2018-Present
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Ph.D. Students

Soyoung Lee, MS, Student in Ph.D. Rehabilitation Science, College of Health and Rehabilitation Sciences: Sargent College, Boston University <i>Primary Mentor</i>	2019-Present
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Nirali Shah, PT, MPT, Student in Ph.D. Rehabilitation Science, College of Health and Rehabilitation Sciences: Sargent College, Boston University <i>Primary Mentor</i>	2018-Present
Samantha Eigenbrot, MS, Student in Ph.D. Rehabilitation Science, College of Health and Rehabilitation Sciences: Sargent College, Boston University <i>Primary Mentor</i>	2018-Present
Jing-Sheng Li, PT, Candidate for Ph.D. Rehabilitation Science, College of Health and Rehabilitation Sciences: Sargent College, Boston University <i>Dissertation committee member</i> <i>Title: Longitudinal Knee Joint Kinematics Before and After Body Weight Change</i>	2016- 2018

Master's students

Sofia Espinosa Marazita, MS Medical Sciences, Graduate Medical Sciences, Boston University School of Medicine <i>Primary Mentor</i> <i>Title: Neuromuscular Factors Related to Varus Thrust During Walking in Knee Osteoarthritis</i>	2019
Kim Chan, MD, MS Epidemiology, Department of Medicine, Boston University School of Medicine <i>Thesis Committee member</i> <i>Title: Leg Length Inequality and Hip Osteoarthritis in Multicenter Osteoarthritis Study and the Osteoarthritis Initiative</i>	2017
Sadashiv Ram Aggarwal, PT, MPT, Master of Physical Therapy (Musculoskeletal), Department of Rehabilitation Science, Jamia Hamdard, New Delhi, India <i>Primary Thesis Advisor</i> <i>Title: Lower extremity muscle strength and balance performance in Indian Community dwelling elderly men aged 50 years and above</i>	2004-2006
Ramachandran K, PT, MPT, Master of Physical Therapy (Musculoskeletal), Department of Rehabilitation Science, Jamia Hamdard, New Delhi, India <i>Primary Thesis Advisor</i>	2004-2005
Syed Irshad Alam, PT, MPT, Master of Physical Therapy (Musculoskeletal), Department of Rehabilitation Science, Jamia Hamdard, New Delhi, India <i>Primary Thesis Advisor</i> <i>Title: The Effect of Isometric Exercise at Functional Position in Postural Neck Pain</i>	2003-2004

DPT and OTD Students

Conlan Brown, DPT-II, Department of Physical Therapy & Athletic Training, Boston University, Research Practicum mentor <i>Title: Changes in Quadriceps Strength Following ACL Reconstruction: A systematic review</i>	2017-2018
Julie Osipow, DPT-I, Department of Physical Therapy & Athletic Training, Boston University, Research Mentor	2018
Megan Lee, DPT-I, Department of Physical Therapy & Athletic Training, Boston University, Research Mentor	2017
Sara Atkinson, OTD, Medical University of South Carolina, Work-Study Research Supervisor	2014-2015

Title: Lean area and intramuscular fat fraction of hip abductors in HIV-infected and uninfected older men

John Battles, PT, DPT, Research Assistant, Department of Physical Therapy, University of Delaware, Co-supervisor 2007-2009

Mark White, PT, DPT, Research Assistant, Department of Physical Therapy, University of Delaware, Co-supervisor 2007-2009

Undergraduate Students

Akshat Mehta, BS/DPT, Boston University, Primary mentor 2018-Present
Awarded \$1,200 in Fall 2019 UROP funding
Awarded \$2,400 in Summer 2019 UROP funding

Kaveh Torabian, Human Physiology, Boston University, Primary mentor 2018- Present
Awarded \$1,200 in Fall 2019 UROP funding
Awarded \$1,200 in Spring 2019 UROP funding
Awarded \$1,100 in Fall 2018 UROP funding
Awarded \$4,400 in Summer 2018 UROP funding

Daniel Chan, Human Physiology, Boston University, Primary mentor 2016- 2020
Awarded \$2,200 in Summer 2018 UROP funding
Awarded \$1,100 in Spring 2018 UROP funding

Bona Lee, Human Physiology, Boston University, Primary mentor 2016- 2019
Awarded \$2,200 in Summer 2018 UROP funding

Timothy Willard, BS-DPT, Boston University, Primary mentor 2018- 2019
Awarded \$4,400 in Summer 2018 UROP funding 2016- 2017
Work-Study in Spring 2018
Dean Moore Scholar/Undergraduate Researcher Fall 2016-Spring 2017

Victoria Brus, Behavioral Biology, Boston University, Primary mentor 2016- 2018
Awarded \$1,320 in Spring 2018 UROP funding
Awarded \$1,500 in Fall 2017 UROP funding
Awarded \$4,400 in Summer 2017 UROP funding
Awarded \$1,320 in Spring 2017 UROP funding

Jiten Patel, Human Physiology, Boston University, Primary mentor 2016- 2018
Awarded \$1,500 in Fall 2017 UROP funding
Awarded \$4,400 in Summer 2017 UROP funding

Yvonne Lin, BS-DPT, Boston University, Primary mentor 2016- 2018
Awarded \$1,000 in Fall 2017 UROP funding
Dean Moore Scholar/Undergraduate Researcher Fall 2016- Spring 2017

Cameron Nurse, Biomedical Engineering, Boston University, Primary mentor 2016- 2018

En Liu, San Francisco State University, Primary mentor
UCSF URAP scholar 2013-2014

April Hishinuma, University of California at Berkeley, Primary mentor
UCSF URAP scholar 2013

Christina Gee, University of California at Berkeley, Primary mentor

Brenda Chen, University of California at Berkeley, Primary mentor <i>UCSF URAP scholar</i>	2012-2013
	2011-2012
Anhthu Ngo, University of California at Berkeley, Primary mentor <i>UCSF URAP scholar</i>	2011-2012
Nishant Neel, University of Pennsylvania, Primary mentor	2011
Kelly Bauer, Harvard University, Primary mentor	2011
Jonathan Beri, University of Delaware, Co-mentor <i>Peter White Scholar</i>	2011
Jason Schoenfeld, University of Delaware, Co-mentor <i>Peter White Scholar</i>	2007-2010

High-School Students

Josh McDermott, Illinois Mathematics and Science Academy, Primary mentor	2014
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Full-time Research Employees

Brian Friscia, Research Fellow, Boston University	2019-Present
Alex Geronimo, Research Fellow, Boston University	2016-2019
Lauren Heitkamp, MS, Program Coordinator II, Medical University of South Carolina	2015-2016

Academic Advising

14 DPT students	AY2019-2020
14 DPT students	AY2018-2019
17 DPT students	AY2017-2018
6 DPT students	AY2016-2017
3 DPT students	AY2015-2016

Service

Department Level

Co-Lead, Grand Rounds Seminar series, Strategic Planning, Department of Physical Therapy & Athletic Training	2018-Present
Co-Lead, Research and Scholarship Pillar, Strategic Planning, Department of Physical Therapy & Athletic Training	2018-2019
Member, DPT-PhD Taskforce, Department of Physical Therapy & Athletic Training, Boston University	2017
Member, DPT Admissions Review, Department of Physical Therapy & Athletic Training, Boston University	2016-Present
Member, Student Policies and Procedures Committee, Division of Physical Therapy, Medical University of South Carolina	2014-2016
Team leader, Website development, UCSF Center of Research Translation website, University of California, San Francisco. http://osteoarthritis.ucsf.edu	2012
Speaker, UCSF Center for Translational Research, Workshop on Biomechanical Analysis of Human Movement using Visual3D, University of California, San Francisco	2012

College Level

Member, PhD Rehabilitation Sciences, Steering Committee	2019 -Present
Acting Director, DPT-PhD Program	2018-2019
Grant Reviewer, Dudley Allen Sargent Research Fund	2018-2019
Member, PhD Admission Review, College of Health and Rehabilitation Sciences: Sargent College, Boston University	2016- Present
Founder and Coordinator, College of Health Professions Research Seminar Series, Medical University of South Carolina	2015-2016
Member, Faculty Evaluation Committee, College of Health Professions, Medical University of South Carolina	2014-2015
Cultural Secretary, Student Association, Jamia Hamdard, Department of Rehabilitation Science, New Delhi, India	2001-2003
Cultural Secretary, Student Association, Pt.D.D.U.I.P.H, Delhi University, New Delhi, India	1998-2000

University Level

Member, Center for Biomedical Imaging Website Committee, Medical University of South Carolina	2016
Member, Center for Biomedical Imaging Lecture Series Committee, Medical University of South Carolina	2016
Founder and Coordinator, Center for Biomedical Imaging Musculoskeletal Imaging Study Group, Medical University of South Carolina	2015-2016
Facilitator, Inter-professional Day, Medical University of South Carolina	2015
Judge, Inter-professional Research Award at Research Day, Nov 14, 2014, Medical University of South Carolina	2014
Member, Indian Graduate Student Organization, University of Delaware	2006-2010
Student member, Organizing Committee , Center of Biomechanical Engineering Research Symposium, University of Delaware. May, 2009	2009

Professional Service

Poster Tour Facilitator, Biomechanics and Gait, Osteoarthritis Research Society International (OARSI) Annual Congress, Vienna, Austria (canceled due to COVID-19)	2020
Organizer, Boston National Biomechanics Day Research Symposium	2019
Ad-hoc Grant Reviewer, NIH National Institute of Arthritis and Musculoskeletal and Skin Disease, AMSC Member Conflict Special Emphasis Panel, October 29, 2019	2019
Ad-hoc Grant Reviewer, Dutch Arthritis Society	2019
Ad-hoc Grant Reviewer, NIH Center for Scientific Research, Musculoskeletal Rehabilitation Sciences Study Section (MRS), February 14, 2019	2019
Ad-hoc Grant Reviewer, The Wellcome Trust/DBT India Alliance, Fellowship grants	2018
Ad-hoc Grant Reviewer, NIH National Institute of Arthritis and Musculoskeletal and Skin Disease, Arthritis and Musculoskeletal and Skin Diseases Special Grants Review Committee (AMS), June 13-14, 2018	2018
Ad-hoc Grant Reviewer, Ireland Health Research Board, Applying Research into Policy & Practice Postdoctoral Fellowships	2018
Ad-hoc Grant Reviewer, Auckland DHB Charitable Trust, New Zealand, A+ TRUST Research Fund Grants	2018
Analysis Plan and Manuscript Reviewer, Multicenter Osteoarthritis Study (MOST)	2016-Present
Organizer and Host, Upward Bound Math and Science Program, Lab Experience, April 18-20	2018 - Present
Mentor, Meet the Mentor Session, Young Investigators Committee, Osteoarthritis Research Society International (OARSI) Annual Congress, April 26-29, Liverpool, UK	2018
Poster Tour Facilitator, Biomechanics and Gait, Osteoarthritis Research Society International (OARSI) Annual Congress, April 26-29, Liverpool, UK	2018

Member, World Congress Program Committee, Osteoarthritis Research Society International (OARSI)	2018
Organizer and Host, Upward Bound Summer Lab, Boston University	2017
Organizer and Host, National Biomechanics Day, Boston University	2017-2018
Vice-Chair, Biomechanics SIG, Section on Research, American Physical Therapy Association	2015-2017
Abstract Reviewer, Orthopaedic Section, American Physical Therapy Association Combined Sections Meeting	2016- Present
Ad hoc reviewer, Journal of Orthopaedic and Sports Physical Therapy, Physical Therapy Journal, American Journal of Sports Medicine, Journal of Rheumatology, Arthritis and Rheumatology (earlier Arthritis and Rheumatism), Arthritis Care and Research, Arthritis Research and Therapy, Asia-Pacific Journal of Sports Medicine, Arthroscopy, Rehabilitation and Technology BMC Musculoskeletal Disorders, Bone, Clinical Biomechanics, Journal of Applied Physiology, Journal of Bone and Mineral Research, Magnetic Resonance Materials in Physics, Biology and Medicine (MAGMA), Medicine and Science in Sports and Exercise, Osteoarthritis and Cartilage, Seminars in Arthritis and Rheumatism, The Knee, Ultrasound in Medicine and Biology	2010- Present

Media Coverage

[Mindful Walking](#)

[From MRI to Motion Capture](#)

[Vigorous Exercise Hastens Knee OA Progression- Rheumatology News](#)

[Knee Pain No More – Men’s Health](#)