

Curriculum Vitae

Shawn C. Roll, PhD, OTR/L, RMSKS, FAOTA, FAIUM

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Faculty Webpage: https://chan.usc.edu/people/faculty/Shawn_Roll; Research Lab Website: <https://chan.usc.edu/msop>

Academic Positions

University of Southern California, Chan Division of Occupational Science and Occupational Therapy

Professor (Tenured), 2023 – Current

Director, Research Training and Development, 2023 – Current

Associate Professor (Tenured), 2017 – 2023

Director, PhD Program in Occupational Science, 2017 – 2023

Director, Musculoskeletal Sonography and Occupational Performance Research Lab, 2011 – Current

Assistant Professor, 2011 – 2017

The Ohio State University, School of Allied Medical Professions

Graduate Research Assistant, 2008 – 2011

Graduate Teaching Associate, 2007 – 2008

Education

Ph.D. in Health and Rehabilitation Sciences, The Ohio State University, 2011

Graduate Interdisciplinary Specialization in College and University Teaching

Dissertation: Relationship of ultrasonographic physiologic changes to personal factors and psychosocial stressors in the development and diagnosis of carpal tunnel syndrome. Advisor: Kevin D. Evans, PhD

M.S. in Allied Health Professions, The Ohio State University, 2006

Minor in Research Methods in Human Resources Development

Thesis: Discovery of interprofessional perceptions of Ohio Bureau of Workers' Compensation vocational rehabilitation professionals during the provision of physical rehabilitation services for injured workers. Advisor: Sharon Flinn, PhD

B.S. in Allied Health Professions (Occupational Therapy), The Ohio State University, 2002

Magna Cum Laude with Distinction

Honors Thesis: Office ergonomics: A university departmental study. Advisor: Sandra Rogers, PhD

Licenses and Certifications

California Occupational Therapist # 12323 (expires 9/30/27)

Ohio Occupational Therapist # 5928 (expires 6/30/27)

Registered Occupational Therapist (NBCOT) # 1064868 (expires 3/30/29)

Registered Musculoskeletal Sonographer (ARDMS) # 168487 (expires 12/31/26)

Certified Work Capacity Evaluator # 900615 (8/1/05-7/31/15)

Research Program

- Applied occupational science examining how participation in interpersonal, built, organizational, and technology-mediated contexts of work shapes health, well-being, and performance using ecological and participatory multi- and mixed-methods
- Musculoskeletal health, upper extremity rehabilitation, and the application of sonographic imaging to the assessment, prevention, and treatment of work-related and other musculoskeletal conditions

Research Career Highlights

Grant Funding: \$9,996,016

Peer-Reviewed Publications: 115

H-Index (Total Citations): Google Scholar: 33 (4,889); Scopus: 28 (2,674); Web of Science: 26 (2,224)

Professional Lectures and Presentations: 49 Invited; 88 peer-reviewed; 118 posters

Scholar Mentees: 6 postdoctoral/faculty; 9 PhD; 16 doctoral committees; 25 graduate students; 18 undergraduate students

Academic Profiles

ORCID: [0000-0002-4202-396X](https://orcid.org/0000-0002-4202-396X)

Web of Science ResearcherID: [C-5246-2011](https://orcid.org/C-5246-2011)

MyNCBI Bibliography: <https://www.ncbi.nlm.nih.gov/myncbi/shawn.roll.1/bibliography/public/>

Google Scholar: <https://scholar.google.com/citations?user=SAu5q1oAAAAJ&hl=en>

PUBLICATIONS

Peer-Reviewed Journal Articles and Full-Length Conference Proceedings Papers(*asterisk indicates direct mentee and underline indicates senior author(s), when applicable)

1. Fang T, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. Understanding everyday communication patterns, stress, and productivity in hybrid work through egocentric wearable audio sensing. *Proceedings of the IEEE Spoken Language Technology (SLT) Workshop; In Press*.
2. Hernandez R, Schneider S, Parrish E, Campbell L, Fanning J, Jin H, **Roll SC**, Harvey P, Chronister B, Ginsberg JP, Moore RC. Biopsychosocial factors facilitating or compromising momentary cognitive performance in everyday environments. *American Journal of Occupational Therapy; In Press*.
3. Seyedrezaei M, Becerik-Gerber B, Awada M, Lucas GM, **Roll SC**. Interaction effects of indoor environmental quality on stress among young adults: An experimental study. *Indoor and Built Environment*; Online Ahead of Print. doi: [10.1177/1420326X261480440](https://doi.org/10.1177/1420326X261480440)
4. Seyedrezaei M, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. Longitudinal exploration of productivity and well-being in hybrid work through ecological momentary assessment and environmental sensing. *Journal of Occupational and Environmental Medicine*, 2026; Online Ahead of Print. doi: [10.1097/JOM.0000000000003833](https://doi.org/10.1097/JOM.0000000000003833)
5. Hernandez R, **Roll SC**, Moore RC, Zelinski E, Lee P-J, Junghaenel DU, Kapteyn A, Maupin D, Gao H, Jin H, Orriens B, Schneider S. Strain and recovery activities predict short-term changes in processing speed: A survey response-time study in workers from a large internet panel. *Neuropsychology*, 2026; Online Ahead of Print. doi: [10.1037/neu0001101](https://doi.org/10.1037/neu0001101)
6. Hernandez R, Schneider S, Moore RC, Gonzalez JS, Hoogendoorn C, **Roll SC**, Jin H, Fanning J, Ginsberg JP, Pyatak EA. Does today's workload predict tomorrow's stress, fatigue, and other strain states? Exploring directionality in daily dynamics. *Ergonomics*, 2026; Online Ahead of Print. doi: [10.1080/00140139.2026.2683140](https://doi.org/10.1080/00140139.2026.2683140)
7. Seyedrezaei M, Becerik-Gerber B, Lucas GM, **Roll SC**, Narayanan S. Environmental comfort in hybrid work: A longitudinal preliminary field study of home and office workspaces. In: *Proceedings of Indoor Air 2026*. International Society of Indoor Air Quality and Climate; 2026.
8. Wang Z, Rodrigues PB, Fang Y*, Soibelman L, Becerik-Gerber B, Lucas GM, **Roll SC**. Design of a sensory-enhanced workstation prototype with a multimodal interface for teleoperated demolition. In: *Construction Research Congress 2026*. American Society of Civil Engineers; 2026:130-140. doi: [10.1061/9780784486979.013](https://doi.org/10.1061/9780784486979.013)
9. Rodrigues PB, Wang Z, Fang Y*, Lucas GM, **Roll SC**, Becerik-Gerber B, Soibelman L. Teleoperation interfaces for compact demolition robots: Results of a pilot study with construction workers. In: *Proceedings of the European Conference on Computing in Construction*. European Council on Computing in Construction; 2026. doi: [10.35490/EC3.2026.422](https://doi.org/10.35490/EC3.2026.422)
10. Seyedrezaei M, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. How environmental conditions shape workload in hybrid work: A longitudinal mediation analysis. *Building and Environment*, 2026; 303:114973. doi: [10.1016/j.buildenv.2026.114973](https://doi.org/10.1016/j.buildenv.2026.114973)
11. **Roll SC**, Evans KD, Khese TR*, Walsh RJ*, Sommerich CM. Practitioner-identified priorities for dedicating resources to address workplace factors impacting sonographer health and well-being. *Journal of Diagnostic Medical Sonography*, 2026; 42(4):273-283. doi: [10.1177/87564793251394360](https://doi.org/10.1177/87564793251394360)
12. Hernandez R, Aldrich RM, Schneider S, Stone AA, **Roll SC**, Pyatak EA. Using ecological momentary assessment (EMA) to understand occupation from the perspective of the experiencing self: An illustrative example in workers with type 1 diabetes. *Journal of Occupational Science*, 2026; 33(2):445-461. doi: [10.1080/14427591.2024.2431138](https://doi.org/10.1080/14427591.2024.2431138)
13. Zang T, Awada M, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. Does your office make you feel worse? Linking environmental exposure and temporal factors to cognitive symptoms. *Indoor Environments*, 2026; 3(2):100171. doi: [10.1016/j.indenv.2026.100171](https://doi.org/10.1016/j.indenv.2026.100171)
14. Fukumura YE*, Wolff A, Kijel MT, Lin E, **Roll SC**. Mapping review of musician well-being literature. *Journal of Occupational and Environmental Hygiene*, 2026; 23(1):48-58. doi: [10.1080/15459624.2025.2544749](https://doi.org/10.1080/15459624.2025.2544749)

15. Evans KD, **Roll SC**, Sommerich CM, Walsh RJ*. Striving for sonographic image quality at the expense of personal injury and burnout. *Journal of Diagnostic Medical Sonography*, 2026; 42(2):181-187. doi: [10.1177/87564793251358227](https://doi.org/10.1177/87564793251358227)
16. Seyedrezaei M, Reyes M, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. Longitudinal analysis of IEQ variability in office and home workspaces: Insights for the future of hybrid work. In: Jafari A, Zhu Y, eds. *Computing in Civil Engineering 2025: Computational and Intelligent Technologies*. American Society of Civil Engineers; 2026:1058-1067. doi: [10.1061/9780784486436.113](https://doi.org/10.1061/9780784486436.113)
17. Seyedrezaei M, Becerik-Gerber B, **Roll SC**, Lucas GM. A preliminary investigation for understanding temperature's associations with office workers' psychological well-being: A close look into anxiety, motivation, and concentration. In: Akinci B, Berges M, Jazizadeh F, Menassa CC, Yeoh J, eds. *Computing in Civil Engineering 2024: Sustainability, Resilience, Safety, and Education*, 2025:568-572. doi: [10.1061/9780784486139.061](https://doi.org/10.1061/9780784486139.061)
18. Rodrigues PB, Lucas GM, Fang Y*, Wang Z, **Roll SC**, Becerik-Gerber B, Soibelman L. Understanding operators' sensory needs for human-robot interaction in teleoperated demolition. *Journal of Construction Engineering and Management*, 2025; 151(12): 04025207. doi: [10.1061/jcemd4.coeng-16911](https://doi.org/10.1061/jcemd4.coeng-16911)
19. Willie T*, Fang Y*, Baker NA, Kapellusch J, **Roll SC**. Environmental factors associated with increased risk of poor posture among dental hygiene students. *Journal of Dental Education*, 2025; 89(9):1310-1318. doi: [10.1002/jdd.13855](https://doi.org/10.1002/jdd.13855)
20. Takata SC*, **Roll SC**. Establishing a sonography protocol for evaluation of the flexor tendons in the hand. *Journal Diagnostic Medical Sonography*, 2025; 45(5):429-442. doi: [10.1177/87564793251328362](https://doi.org/10.1177/87564793251328362)
21. Wang Z, Rodrigues PB, Fang Y*, Soibelman L, Becerik-Gerber B, **Roll SC**, Lucas GM. Understanding potential challenges in demolition robot teleoperation to inform interface design: Insights from industry professionals. *CIB Conferences*. 2025; 1(1):106. doi: [10.7771/3067-4883.2040](https://doi.org/10.7771/3067-4883.2040)
22. Awada M, Becerik-Gerber B, Lucas GM, **Roll SC**. The impact of color correlated temperature and illuminance levels of office lighting on stress and cognitive restoration. *Journal of Environmental Psychology*, 2025; 104:102628. doi: [10.1016/j.jenvp.2025.102628](https://doi.org/10.1016/j.jenvp.2025.102628)
23. Rodrigues PB, Becerik-Gerber B, Soibelman L, Lucas GM, **Roll SC**. Impact of selective environmental sound attenuation on operator performance, stress, attention, and task engagement in teleoperated demolition. *Automation in Construction*, 2025; 169:105876. doi: [10.1016/j.autcon.2024.105876](https://doi.org/10.1016/j.autcon.2024.105876)
24. Parga MR*, **Roll SC**, Lucas GM, Becerik-Geber B, Narayanan S. Differences in self-rated worker outcomes across stress states: An interim analysis of hybrid worker data. *Proceedings of the Human Factors and Ergonomics Society Annual Meeting*, 2024; 68(1):1404-1409. doi: [10.1177/10711813241275500](https://doi.org/10.1177/10711813241275500)
25. Brun A, Lucas GM, Becerik-Gerber B, **Roll SC**, Narayanan S. Toward occupant-centric virtual agents: Office workers' perspectives on technological design and implementation. In: *Proceedings of the 31st International Workshop on Intelligent Computing in Engineering*. 2024:104-114.
26. Yao B, Yang Y, **Roll SC**, Lin Z, Zhang Y, Jiang J, Zhou M. Diagnostic Ultrasound in the evaluation of stiff shoulder: Association of axillary recess thickness with standard clinical measures. *American Journal of Physical Medicine and Rehabilitation*, 2024; 103(12):1117-1122. doi: [10.1097/PHM.0000000000002517](https://doi.org/10.1097/PHM.0000000000002517)
27. Loomis KJ*, **Roll SC**. External wrist ratio is not a proxy for internal carpal tunnel shape: Implications for evaluating carpal tunnel syndrome risk. *Clinical Anatomy*, 2024; 37(8):869-877. doi: [10.1002/ca.24132](https://doi.org/10.1002/ca.24132)
28. Walsh RJ*, Evans KD, Sommerich CM, **Roll SC**. Work systems factors associated with burnout in sonographers working in the United States and Canada. *Journal of Diagnostic Medical Sonography*, 2024; 40(6):529-540. doi: [10.1177/87564793241254843](https://doi.org/10.1177/87564793241254843)
29. Fang Y*, Liu J, **Roll SC**. Challenges and opportunities for work and industry practice in occupational therapy: A practitioner survey. *American Journal of Occupational Therapy*, 2024; 78(6):1224-1231. doi: [10.5014/ajot.2024.050600](https://doi.org/10.5014/ajot.2024.050600)
30. Lucas GM, Becerik-Geber B, **Roll SC**. Calibrating workers' trust in intelligent automated systems. *Patterns*, 2024; 5(9):101045. doi: [10.1016/j.patter.2024.101045](https://doi.org/10.1016/j.patter.2024.101045)

31. Loomis KJ*, Shin J*, **Roll SC**. Current and future utility of ultrasound imaging in upper extremity musculoskeletal rehabilitation: A scoping review. *Journal of Hand Therapy*, 2024; 37(3):331-347. doi: [10.1016/j.jht.2023.09.014](https://doi.org/10.1016/j.jht.2023.09.014)
32. Fang Y*, **Roll SC**. Work and industry occupational therapy career pathways: Understanding an underrepresented practice area. *Occupational Therapy Journal of Research*, 2024; 44(4):671-679. doi: [10.1177/15394492231213253](https://doi.org/10.1177/15394492231213253)
33. Awada M, **Becerik-Gerber B**, Lucas GM, **Roll SC**, Liu R. A new perspective on stress detection: An automated approach for detecting eustress and distress. *IEEE Transactions on Affective Computing*, 2024; 15(3):1153-1165. doi: [10.1109/TAFFC.2023.3324910](https://doi.org/10.1109/TAFFC.2023.3324910)
34. Fang Y*, Kapellusch J, Baker NA, **Roll SC**. Characterizing physical strain in non-routinized clinical work through observation: An example of oral healthcare providers. *Proceedings of the International Symposium on Human Factors and Ergonomics in Health Care*, 2024; 13(1):134-139. doi: [10.1177/2327857924131015](https://doi.org/10.1177/2327857924131015)
35. Yao B*, Yang L*, Evans KD, **Roll SC**. Doppler sonography evaluation of median nerve intramural blood flow: A systematic review. *Journal of Diagnostic Medical Sonography*, 2024; 40(5):480-495. doi: [10.1177/87564793241257922](https://doi.org/10.1177/87564793241257922)
36. Hernandez R, Jin H, Pyatak EA, **Roll SC**, Schneider S. Workers' whole day workload and next day cognitive performance. *Current Psychology*, 2024; 43:2005-2018. doi: [10.1007/s12144-023-04400-y](https://doi.org/10.1007/s12144-023-04400-y)
37. Parga MR*, Evans KD, Sommerich CM, **Roll SC**. Sonographers and vascular technologists offer potential solutions to promote the health and well-being of their workforce. *Journal of Diagnostic Medical Sonography*, 2024; 40(2):127-139. doi: [10.1177/87564793231217217](https://doi.org/10.1177/87564793231217217)
38. Awada M, **Becerik-Gerber B**, Lucas GM, **Roll SC**. Stress appraisal in the workplace and its association with productivity and mood: Insights from a multimodal machine learning analysis. *PLoS ONE*, 2024; 19(1):e0296468. doi: [10.1371/journal.pone.0296468](https://doi.org/10.1371/journal.pone.0296468)
39. Fukumura YE*, Evans KD, Sommerich CM, **Roll SC**. Work-related musculoskeletal disorders and associated work systems factors: Are there differences between sonography practice areas? *Journal of Diagnostic Medical Sonography*, 2024; 40(1):4-18. doi: [10.1177/87564793231205612](https://doi.org/10.1177/87564793231205612)
40. Hernandez R, Jin H, Pyatak EA, **Roll SC**, Gonzalez JS, Schneider S. Perception of whole day workload as a mediator between activity engagement and stress in workers with type 1 diabetes. *Theoretical Issues in Ergonomics Science*, 2024; 25(1):67-85. doi: [10.1080/1463922X.2022.2149878](https://doi.org/10.1080/1463922X.2022.2149878)
41. Rodrigues PB, Becerik-Gerber B, Soibelman L, Lucas GM, **Roll SC**. Virtual environment to study the effects of operational and environmental sound on teleoperated demolition. In: Turkan Y, Louis J, Leite F, Ergon S, eds. *Computing in Civil Engineering 2023: Visualization, Information Modeling, and Simulation*. American Society of Civil Engineers; 2024:54-61. doi: [10.1061/9780784485231.007](https://doi.org/10.1061/9780784485231.007)
42. Loomis KJ*, **Roll SC**, Hardison ME. The role of therapist-patient relationships in facilitating engagement and adherence in upper extremity rehabilitation. *Work*, 2023; 76(3):1083-1098. doi: [10.3233/WOR-220384](https://doi.org/10.3233/WOR-220384)
43. Awada M, **Becerik-Gerber B**, Lucas GM, **Roll SC**. Predicting office workers' productivity: A machine learning approach integrating physiological, behavioral, and psychological indicators. *Sensors*, 2023; 23:8694. doi: [10.3390/s23218694](https://doi.org/10.3390/s23218694)
44. Yao B*, Evans KD, **Roll SC**. Assessing the potential for error in investigating intraneural vascularity: A need for a standardized imaging protocol. *Journal of Diagnostic Medical Sonography*, 2023; 39(6):549-559. doi: [10.1177/87564793231193396](https://doi.org/10.1177/87564793231193396)
45. Liu R, Awada M, **Becerik-Gerber B**, Lucas GM, **Roll SC**. Gender moderates the effects of ambient bergamot scent on stress restoration in offices. *Journal of Environmental Psychology*, 2023; 91:102135. doi: [10.1016/j.jenvp.2023.102135](https://doi.org/10.1016/j.jenvp.2023.102135)
46. **Roll SC**, Takata SC*, Yao B*, Kysh L, Mack WJ. Sonographic reference values for median nerve cross-sectional area: A meta-analysis of data from healthy individuals. *Journal of Diagnostic Medical Sonography*, 2023; 39(5):492-506. doi: [10.1177/87564793231176009](https://doi.org/10.1177/87564793231176009)
47. **Evans KE**, Stigall-Weikle AN, **Roll SC**, Sommerich CM. Understanding the effects of the COVID-19 pandemic on sonographers and vascular technologists: Healthcare heroes kryptonite! *Journal of Diagnostic Medical Sonography*, 2023; 39(5):430-440. doi: [10.1177/87564793231185297](https://doi.org/10.1177/87564793231185297)

48. Seyedrezaei M, Awada M, Becerik-Gerber B, Lucas GM, **Roll SC**. Interaction effects of indoor environmental quality factors on cognitive performance and perceived comfort of young adults in open plan offices in North American Mediterranean climate. *Building and Environment*, 2023; 244:110743. doi: [10.1016/j.buldev.2023.110743](https://doi.org/10.1016/j.buldev.2023.110743)
49. **Roll SC**, Fukumura YE*, Sommerich CM, Stigall-Weikle AN, Evans KD. Cross-disciplinary prevalence and associated factors for work-related discomfort in users of ultrasonography: Implications for sonography professionals and healthcare administrators. *Journal of Diagnostic Medical Sonography*, 2023; 39(4):314-330. doi: [10.1177/87564793231170016](https://doi.org/10.1177/87564793231170016)
50. Henningsen C, Sayeed Y, Bagley J, Fields C, Marroquin J, Quevedo M, Robinson K, **Roll SC**, Wolfman D, Kummer T, Mastrobattista J, Russo M, Turner T, Levitan B, Joshua F, Perez M, Hutchisson M, Rybyinski A, Dall'Asta A, Hill J, Collins DE, Barahona OJ, Sterns T, Swartz AE. AIUM practice principles for work-related musculoskeletal disorder. *Journal of Ultrasound in Medicine*, 2023; 42(5):1139-1157. doi: [10.1002/jum.16124](https://doi.org/10.1002/jum.16124)
51. Yao B*, Takata SC*, Mack WJ, **Roll SC**. Modeling extracurricular activity participation with physical and mental health in college students over time. *Journal of American College Health*, 2023; 71(4):1232-1240. doi: [10.1080/07448481.2021.1926263](https://doi.org/10.1080/07448481.2021.1926263)
52. Awada M, Becerik-Gerber B, Liu R, Seyedrezaei M, Lu Z, Xenakis M, Lucas G, **Roll SC**, Narayanan S. Ten questions concerning the impact of environmental stress in office workers. *Building and Environment*, 2023; 229:109964. doi: [10.1016/j.buildenv.2022.109964](https://doi.org/10.1016/j.buildenv.2022.109964)
53. Becerik-Gerber B, Lucas GM, Aryal A, Awada M, Berges M, Billington S, Boric-Lubecke O, Ghahramani A, Hayderian A, Holscher C, Jazizadeh F, Khan A, Langevin J, Liu R, Mark, F, Mauirello ML, Murnane E, Noh H, Pritoni M, **Roll SC**, Schaumann D, Seyedrezaei M, Taylor J, Zhao J, Zhu R. The field of human building interaction for convergent research and innovation for intelligent built environments. *Scientific Reports*, 2022; 12(1):22092. doi: [10.1038/s41598-022-25047-y](https://doi.org/10.1038/s41598-022-25047-y)
54. Shomer L, **Roll SC**. Lifestyle Redesign® intervention for psychological well-being and function in people with fibromyalgia: A retrospective cohort study. *American Journal of Occupational Therapy*, 2022; 76(6):1056-1062. doi: [10.5014/ajot.2022.049243](https://doi.org/10.5014/ajot.2022.049243)
55. Awada M*, Becerik-Gerber B, Lucas GM, **Roll SC**. Cognitive performance, creativity, and stress levels of neurotypical adults under different white noise levels. *Scientific Reports*, 2022; 12(1):14566. doi: [10.1038/s41598-022-18862-w](https://doi.org/10.1038/s41598-022-18862-w)
56. Evans KD, Sommerich CM, Bloom IW, **Roll SC**, Stigall-Weikle AN. The value of conducting a longitudinal study on well-being and risk for work-related musculoskeletal injuries in ultrasound users. *Journal of Diagnostic Medical Sonography*, 2022; 38(5):474-480. doi: [10.1177/87564793221091255](https://doi.org/10.1177/87564793221091255)
57. **Roll SC**, Yo SH. (Re-)defining ergonomics in hand therapy: Applications for the management of upper extremity osteoarthritis. *Journal of Hand Therapy*, 2022; 35(3):400-412. doi: [10.1016/j.jht.2022.06.006](https://doi.org/10.1016/j.jht.2022.06.006)
58. Hernandez R*, **Roll SC**, Jin H, Schneider S, Pyatak EA. Validation of the National Aeronautics and Space Administration task load index (NASA-TLX) adapted for the whole day repeated measures context. *Ergonomics*, 2022; 65(7):960-975. doi: [10.1080/00140139.2021.2006317](https://doi.org/10.1080/00140139.2021.2006317)
59. Becerik-Gerber B, Lucas G, Aryal A, Awada M, Berges M, Billington S, Boric-Lubecke O, Ghahramani A, Heydarian A, Jazizadeh F, Liu R, Zhu R, Marks F, **Roll S**, Seyedrezaei M, Taylor J, Hoelscher C, Khan A, Langevin J, Mauriello M, Murnane E, Noh H, Proton M, Schaumann D, Zhao J. Ten questions concerning human-building interaction research for improving the quality of life. *Building and Environment*, 2022; 226:109681. doi: [10.1016/j.buildenv.2022.109681](https://doi.org/10.1016/j.buildenv.2022.109681)
60. Hardison ME*, Unger J, **Roll SC**. Hand therapy patients' psychosocial symptomology and interests in mindfulness: A cross-sectional study. *Canadian Journal of Occupational Therapy*, 2022; 89(1):44-50. doi: [10.1177/00084174211060120](https://doi.org/10.1177/00084174211060120)
61. Rodrigues PB, Xiao Y*, Fukumura Y*, Awada A*, Aryal A, Becerik-Gerber B, Lucas GM, **Roll SC**. Ergonomic assessment of office worker postures using 3D automated joint angle assessment. *Advanced Engineering Informatics*, 2022; 52:101596. doi: [10.1016/j.aei.2022.101596](https://doi.org/10.1016/j.aei.2022.101596)
62. Fang Y*, Baker NA, Dole J*, **Roll SC**. Quality of patient education handouts for carpal tunnel syndrome available on the internet: A systematic analysis of content and design. *Archives of Physical Medicine and Rehabilitation*, 2022; 103(2):297-304. doi: [10.1016/j.apmr.2021.08.010](https://doi.org/10.1016/j.apmr.2021.08.010)

63. Pozzi F, Sousa CO, Plummer HA, Andrade B, Awokuse D, Kono N, Mack WJ, **Roll SC**, Michener LA. Development of shoulder pain with job-related repetitive load: Mechanisms of tendon pathology and anxiety. *Journal of Shoulder and Elbow Surgery*, 2022; 31(2):225-234. doi: [10.1016/j.jse.2021.09.007](https://doi.org/10.1016/j.jse.2021.09.007)
64. Yao B*, **Roll SC**. An ultrasound study of the mobility of the medial nerve during composite finger movement in the healthy young wrist. *Muscle and Nerve*, 2022; 65(1):82-88. doi: [10.1002/mus.27437](https://doi.org/10.1002/mus.27437)
65. Awada M*, Becerik-Gerber B, Lucas GM, **Roll SC**. Associations among home indoor environmental quality factors and worker health while working from home during COVID-19 pandemic. *Journal of Engineering for Sustainable Buildings and Cities*, 2021; 2(4):041001-10. doi: [10.1115/1.4052822](https://doi.org/10.1115/1.4052822)
66. Baker NA, Dole J*, **Roll SC**. A meta-synthesis of carpal tunnel syndrome treatment options: Developing consolidated clinical treatment recommendations to improve practice. *Archives of Physical Medicine and Rehabilitation*, 2021; 102:2261-2268. doi: [10.1016/j.apmr.2021.03.034](https://doi.org/10.1016/j.apmr.2021.03.034)
67. Hernandez R*, Pyatak EA, Jin H, Schneider S, Spruitz-Metz D, **Roll SC**. Understanding worker well-being relative to high-workload and recovery activities across a whole day: Pilot testing an ecological momentary assessment technique. *International Journal of Environmental Research and Public Health*, 2021; 18(4):10354. doi: [10.3390/ijerph181910354](https://doi.org/10.3390/ijerph181910354)
68. Fukumura YE*, Schott J*, Becerik-Gerber B, Lucas GM, **Roll SC**. Negotiating time and space when working from home: Experiences during COVID-19. *Occupational Therapy Journal of Research*, 2021; 41:223-231. doi: [10.1177/15394492211033830](https://doi.org/10.1177/15394492211033830)
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Books, Chapters, and Practice Guidelines

(*asterisk indicates direct mentee)

1. **Roll SC**, Dorsey JD, Jaegers LA, Voss M. Work. In: Gillen G, Brown T, Rider J, eds. *Willard and Spackman's Occupational Therapy*. 15th ed. Wolters Kluwer. Forthcoming
2. **Roll SC**. Work and Industry. In: Pyatak EA, Lee ES, eds. *50 Studies Every Occupational Therapist Should Know*. Oxford, England: Oxford University Press; 2023. ISBN: [9780197630402](https://doi.org/9780197630402) doi: [10.1093/med/9780197630402.001.0001](https://doi.org/10.1093/med/9780197630402.001.0001)
3. Fukumura YE*, **Roll SC**. Injury Prevention through Ergonomic Assessment, Education, and Intervention: Healthy Backpack Wearing in School-Aged Children. In: Pyatak EA, Lee ES, eds. *50 Studies Every Occupational Therapist Should Know*. Oxford, England: Oxford University Press; 2023. ISBN: [9780197630402](https://doi.org/9780197630402) doi: [10.1093/med/9780197630402.003.0015](https://doi.org/10.1093/med/9780197630402.003.0015)
4. Hegmann KT, Kaufman LR, Berenji M, Cook-Shimanek MC, Greiwe RM, Jain N, Melhorn JM, Michener LA, Moses JE, Pushkin GW, **Roll SC**, Strain RE, Weiss MS (American College of Occupational and Environmental Medicine (ACOEM) evidence-based practice panel). *ACOEM Clinical Practice Guideline for Shoulder Disorders*. MDGuidelines. Westminster, CO: Reed Group, Ltd.; 2023. Available at: www.MDGuidelines.com
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6. Hegmann KT, Melhorn JM, Ausfahl J, Freshwater MF, Prezvia CP, Rempel DM, **Roll SC**, Rollins RJ, Werner RA, Zaremski J (ACOEM evidence-based practice panel). *ACOEM Clinical Practice Guideline for Hand, Wrist, and Forearm Disorders*. MDGuidelines. Westminster, CO: Reed Group, Ltd.; 2019. Available at: www.MDGuidelines.com.
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Edited Special Issues of Peer-Reviewed Journals

1. Work-Related Musculoskeletal Injuries in Sonographers. *Journal of Diagnostic Medical Sonography*; **Roll SC**, Ed., 2017; 33(5).
2. Occupational Therapy for Adults with Musculoskeletal Conditions. *American Journal of Occupational Therapy*; **Roll SC**, Ed., 2017; 71(1).
3. Injuries & Prevention in Health Care Providers. *Work*; **Roll SC**, Ed., 2012; 42(3).

Editorials, Commentaries, and Other Publications

1. **Roll SC**, Lucas GM, Becerik-Gerber B. Authors' response to "Work from home (WFH) during COVID-19: Is virtual reality (VR) a new solution to new problems?" *Journal of Occupational and Environmental Medicine*, 2021; 63(10):e757-758. doi: [10.1097/JOM.0000000000002340](https://doi.org/10.1097/JOM.0000000000002340)
2. **Roll SC**. The value and process of high-quality peer-review in scientific professional journals. *Journal of Diagnostic Medical Sonography*, 2019, 35:4, 356-359. doi: [10.1177/8756479319853800](https://doi.org/10.1177/8756479319853800)
3. **Roll SC**. Embracing the expanding horizons of diagnostic medical sonography: Clinical innovation, interdisciplinary growth, and scientific discovery. *Journal of Diagnostic Medical Sonography*, 2017; 33. doi: [10.1177/8756479317698665](https://doi.org/10.1177/8756479317698665)
4. **Roll SC**. Current evidence and opportunities for expanding the role of occupational therapy for adults with musculoskeletal conditions. *American Journal of Occupational Therapy*, 2017; 71(1):45-50. doi: [10.5014/ajot.2017.711002](https://doi.org/10.5014/ajot.2017.711002)
5. **Roll SC**, Darragh AR, O'Brien JC, Fisher TF. In Memoriam: Jane Douglas Case-Smith. *OTJR: Occupational, Participation, and Health*, 2014; 34:171-175. doi: [10.3928/15394492-20141006-03](https://doi.org/10.3928/15394492-20141006-03)

6. Evans KD, **Roll SC**, Volz KR, Freimer M. [Reply] Nerve Blood Flow. *Journal of Ultrasound in Medicine*, 2013; 32:188-9. doi: [10.7863/jum.2013.32.1.188](https://doi.org/10.7863/jum.2013.32.1.188)
7. **Roll SC**. Injuries and prevention in health care providers. *WORK: A Journal of Prevention, Assessment, and Rehabilitation*, 2012; 42; 309-310. doi: [10.3233/WOR-2012-1439](https://doi.org/10.3233/WOR-2012-1439)

Peer-Reviewed, Published Conference Abstracts

[Appendix A](#) provides a complete list of 26 published abstracts for presentations at international and national conferences.

PRESENTATIONS

Invited Presentations

International

1. **Roll SC**, Cutchin M, Park M, Smith RO. Contributions of occupational science and occupational therapy to well-being in built environments. Moderator and participant in panel discussion: International Network of Networks for Well-being in the Built Environment, 2022; virtual event.
2. **Roll SC**. PhD education in occupational science. Presentation at: 1st Annual Academic Conference of the Chinese Association of Rehabilitation Medicine and International Rehabilitation Equipment Exhibition, 2017; Beijing, China.
3. **Roll SC**. Occupational science PhD research training. Presentation at: Seminar on Graduate Education of Rehabilitation Therapy, Peking University Health Science Center, 2017; Beijing, China.

National

4. Evans KD, Sommerich CM, **Roll SC**. Sonographers' career ladder leading to where? How the need for sonographers includes career advancement. **Stephen McLaughlin Memorial Lectureship** at: Society of Diagnostic Medical Sonography Annual Conference, 2026; Atlanta, GA. (*invited and pending*)
5. **Roll SC**, Evans KD, Sommerich CM. Evidence-based recommendations to reduce the risk of WRMSD in diagnostic medical sonographers and vascular technologists. **Plenary** presentation at: Society of Diagnostic Medical Sonography Annual Conference, 2025; Denver, CO.
6. Evans KD, Sommerich CM, **Roll SC**. Creating a culture of care within sonography workplaces to promote well-being. **Plenary** presentation at: Society of Diagnostic Medical Sonography Annual Conference, 2025; Denver, CO.
7. **Roll SC**, Becerik-Gerber B, Lucas GM, Narayanan S. Understanding complexities in individual experiences of office worker stress: Utility of environmental and egocentric sensing. Platform presentation at: Mini-Marconi Conference of the Office Ergonomics Research Committee, 2025; San Francisco, CA.
8. Farrar Edwards D, Boone A, Clancy M, Kehl-Floberg K, **Roll SC**, Wilcox J, Hammel J. The impact of long COVID on occupational performance: Opportunities for occupational therapy intervention and research. American Occupational Therapy Foundation State of the Science Symposium at: American Occupational Therapy Association Inspire Annual Conference, 2025; Philadelphia, PA.
9. **Roll SC**, Evans KD, Sommerich CM, Walsh RJ*. Healthy sonographers = improved diagnostic quality. Workshop presenter at: Society of Diagnostic Medical Sonography Learning Series, 2024; virtual event.
10. **Roll SC**, Kinney A, Proffitt RM, Washington S. Myths and truths about research and a research career. Panel moderator at: AOTA/AOTF Future Scientists Institute, 2024; Orlando, FL.
11. **Roll SC**, Becerik-Gerber B, Lucas GM. Developing a framework for the safe and effective development and implementation of artificial intelligence in the workplace. Webinar presentation for: Artificial Intelligence Interest Group of the National Institute for Occupational Safety and Health, 2023; virtual event.
12. **Roll SC**. Impacts of working from home during the COVID-19 pandemic on office worker health and wellbeing. Platform presentation at: Marconi Conference of the Office Ergonomics Research Committee, 2022; Atlanta, GA.

13. Becerik-Gerber B, Lucas GM, **Roll SC**. AI and other technologies to support health and wellbeing in the workplace. Platform presentation at: Marconi Conference of the Office Ergonomics Research Committee, 2022; Atlanta, GA.
14. **Roll SC**, Cruz T, Chiou S, Garg S, Hwang G, Sudsawad P. Funding opportunities for occupational therapists and occupational scientists. Moderator for panel presentation at: 10th Annual Occupational Therapy Summit of Scholars, 2022; Madison, WI.
15. **Roll SC**, Becerik-Gerber B, Lucas GM. Leveraging a transdisciplinary approach to develop effective AI solutions to reduce risk and promote worker health. Webinar presentation for: Artificial Intelligence Interest Group of the National Institute for Occupational Safety and Health, 2022; virtual event.
16. Mulcahey MJ, Kramer J, Pfeiffer E, **Roll SC**, Stark S. How my research in occupational therapy informs practice, and elevates equity, justice, and human potential. Panel presentation at: American Occupational Therapy Association Inspire Annual Conference, 2022; San Antonio, TX.
17. **Roll SC**. Top 10 things every POCUS user should know according to the ergonomist. Podium presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2022; San Diego, CA.
18. Cowan A, Ivy C, King j, MacDermid J, McGee C, **Roll SC**, Stegink-Jansen C. Research “speed dating”. Panelist at: 44th Annual Meeting of the American Society of Hand Therapists, 2021; St. Louis, MO.
19. **Roll SC**. Enhancing worker health through multi-level, transdisciplinary research. Honorary lecture at: American Occupational Therapy Foundation Research Excellence Symposium, 2021; virtual event.
20. **Roll SC**. Pathways among occupational performance, body structures, and worker health. Platform presentation at: USC Chan Occupational Science Symposium, 2019; Los Angeles, CA.
21. **Roll SC**, et al. The life and times of a scientist. Panel presentation at: Summer Institute for Future Scientists in Occupational Therapy, 2019; Charleston, SC.
22. **Roll SC**. Consideration of humans as ‘occupational beings’ in human-building interactions. Presentation at: NSF Workshop on Dynamic Interaction of Embodied Human and Machine Intelligence, 2019; Los Angeles, CA.
23. **Roll SC**. Individual identification, prevention, and management of work-related musculoskeletal discomfort. Instructional Session at: Annual Convention of the American Institute of Ultrasound in Medicine, 2019; Orlando, FL.
24. Sayeed Y, Stearns T, Baker JP, Henningsen C, **Roll SC**, Evans KD. Ergonomic redesign – tools to give your career longevity. Hands-on Scanning Workshop at: Annual Convention of the American Institute of Ultrasound in Medicine, 2019; Orlando, FL.
25. Baranek G, **Roll SC**, Rocker J, Aguillon A, Liew SL, Holguin J, Margetis J. Creating synergies between clinicians and scientists. Keynote Panel at: AOTA Adult Physical Rehabilitation Specialty Conference, 2018; Los Angeles, CA.
26. **Roll SC**, Takata SC*. Illuminating the nuances of carpal tunnel syndrome: Advanced concepts in prevention and rehabilitation for the experienced therapist. Instructional course at: 41st Annual Conference of the American Society of Hand Therapists, 2018; Dallas, TX.
27. **Roll SC**, Takata SC*, Aguillon A, Rocker J. Musculoskeletal sonography: Introductory training and application for hand therapy. Conference Institute (4-hrs) at: 40th Annual Conference of the American Society of Hand Therapists, 2017; Anaheim, CA.
28. **Roll SC**. Musculoskeletal ultrasound: Techniques, pearls, and pitfalls. Instructional course at: Annual Convention of the American Institute of Ultrasound in Medicine, 2017; Orlando, FL.
29. Nagdev, A...**Roll SC**. Peripheral nerve blocks in the emergency department. Hands-on Scanning Workshop at: Annual Convention of the American Institute of Ultrasound in Medicine, 2017; Orlando, FL.
30. **Roll SC**, Marik TL. AOTA EBP system reviews of interventions for musculoskeletal conditions of the upper extremity. Instructional course at: 39th Annual Meeting of the American Society of Hand Therapists, 2016; Washington, DC.
31. **Roll SC**. Becoming an evidence-based practitioner. Sonography community instructional session at: Annual Convention of the American Institute of Ultrasound in Medicine, 2016; New York, NY.

32. **Roll SC**, et. al. What makes a winning proposal: Perspectives from grant reviewers. Panel presentation at: 4th Annual Occupational Therapy Summit of Scholars, 2015; Los Angeles, CA.
33. Lieberman D, Arbesman M, Dorsey J, Marik TL, Poole J, **Roll SC**, Siegel P, Snodgrass J. Systematic review on occupational therapy and adults with musculoskeletal disorders and arthritis. Panel presentation at: 95th Annual Conference of the American Occupational Therapy Association, 2015; Nashville, TN.
34. **Roll SC**. Introducing musculoskeletal sonography, part I: Structures and pathologies of the hand. Instructional course at: 37th Annual Meeting of the American Society of Hand Therapists, 2014; Boston, MA.
35. **Roll SC**. Introducing musculoskeletal sonography, part II: Clinical applications for hand therapy. Instructional course at: 37th Annual Meeting of the American Society of Hand Therapists, 2014; Boston, MA.

State/Regional

36. **Roll SC**. Expanding the scope of sonography: Novel applications and interprofessional opportunities in allied health research, education, and practice. **Keynote Speaker**, Allied Health Professions Research Day, University of Oklahoma, 2026; Oklahoma City, OK. (*invited and pending*)
37. Wilcox J, **Roll SC**, Crowe B, Youell K, Aldrich RM. Facilitating return to work for patients with long COVID. Panel presentation at: Occupational Therapy Association of California Research Symposium, 2025; virtual event.
38. **Roll SC**. Mobilizing collective knowledge. **Keynote Speaker**, Rehabilitation Sciences Visiting Professor, J. Leonard Goldner Orthopaedic Research Day, Duke University, 2023; Durham, NC.
39. **Roll SC**. Leveraging worker-environment-technology transactions to maximize health, well-being, and performance in Industry 4.0. Visiting Professor, Duke University, Divisions of Occupational and Physical Therapy, 2023; Durham, NC.
40. **Roll SC**. Musculoskeletal sonography for rehabilitation professionals. Continuing Education Course (1 CEU), University of California Los Angeles, Rehabilitation Services Department, 2019; Los Angeles, CA.
41. **Roll SC**. Examining the pathways among body structures, occupational performance, and health. Guest Speaker, Tufts University, Occupational Therapy Department, 2019; Medford, MA.
42. **Roll SC**. Bidirectional pathways among occupational performance, tissue morphology, and health. **Keynote Speaker**, *Physical Stresses: Keeping us Alive and Well*, An Interdisciplinary Research Conference on Mechanotransduction, 2018; Oklahoma City, OK.
43. **Roll SC**. Musculoskeletal sonographic imaging of the upper extremity: Current trends in practice and research. **Keynote Speaker**, Annual Meeting, Central Ohio Ultrasound Society, 2016; Columbus, OH.
44. **Roll SC**. Innovative approaches to advancing occupational performance in individuals with upper extremity musculoskeletal disorders. **Keynote Speaker**, Occupational Therapy Association of California, 14th Annual Afternoon Tea with a Scholar, 2015; Los Angeles, CA.
45. **Roll SC**. Hands-on sonographic imaging for hand therapists. Continuing Education Course (6 CEU), Hand Therapy Society of Greater Los Angeles, 2013; Los Angeles, CA.
46. **Roll SC**. Evidence-based practice from classroom to clinic. **Keynote Speaker**, Wisconsin Council on Education, Annual State Conference, 2010; Milwaukee, WI.
47. **Roll SC**. Advanced sub-acute and chronic rehabilitation. Presentation in *Return-to-work Process: Orthopedic Surgeries and Rehab*, Continuing Education Course (4.5 CEU), Fairfield Medical Center, 2007; Lancaster, OH.
48. **Roll SC**. Office ergonomics. Luncheon speaker, Fairfield County Business & Industry Safety Council, 2005; Lancaster, OH.
49. **Roll SC**. An introduction to functional capacity evaluations. Presentation in *Evaluations in Industrial Rehabilitation*, Continuing Education Course (4.5 CEU), Fairfield Medical Center, 2004; Lancaster, OH.

Peer-Reviewed Presentations

(* indicates direct mentee)

International

1. Rodrigues PB, Wang Z, Fang Y, Lucas GM, **Roll SC**, Becerik-Gerber B, Soibelman L. Teleoperation interfaces for compact demolition robots: Results of a pilot study with construction workers. Paper presentation at: European Conference on Computing in Construction, 2026; Corfu, Greece.
2. Seyedrezaei M, Becerik-Gerber B, Lucas GM, **Roll SC**, Narayanan S. Environmental comfort in hybrid work: A longitudinal preliminary field study of home and office workspaces. Paper presentation at: International Society of Indoor Air Quality and Climate Indoor Air Conference, 2026; Singapore.
3. **Roll SC**, Fang Y*, Parga MR*. OT at work: Supporting worker health and occupational performance in technology-enabled workplaces. Paper presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
4. Asaba E, Aldrich RM, Wilcox J, **Roll SC**. Return to work: Lessons learned from severe COVID-19 to Post-COVID across country contexts. Paper presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
5. Fang Y*, Aldrich RM, Lucas GM, **Roll SC**, Becerik-Gerber B, Pyatak E. The evolving nature of work in the digital age: Exploring construction workers' occupational adaptations to technological transformations. Paper presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
6. Parga MR*, **Roll SC**, Lucas GM. The value of occupational justice for socially responsible technology: An interdisciplinary exploration with the field of human-computer interaction. Paper presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
7. Loomis KJ*, Valente T, **Roll SC**. Exploring the international hand therapy research network. Paper presentation at: International Federation for Societies for Surgery of the Hand and International Federation for Societies of Hand Therapy Triennial Congress, 2025; Washington, DC.
8. Rodrigues PB, Wang Z, Fang Y*, Becerik-Gerber B, Soibelman L, Lucas GM, **Roll SC**. A teleoperation interface for robotic demolition: Designing for operators' sensory and adaptation needs. Paper presentation at: International Council for Research and Innovation in Building and Construction (CIB) World Building Congress, 2025; West Lafayette, IN.
9. Wang Z, Rodrigues PB, Fang Y*, Soibelman L, Becerik-Gerber B, Lucas GM, **Roll SC**. Understanding potential challenges in demolition robot teleoperation to inform interface design: Insights from industry professionals. Paper presentation at: International Council for Research and Innovation in Building and Construction (CIB) World Building Congress, 2025; West Lafayette, IN.
10. Fang Y*, **Roll SC**, Becerik-Gerber B, Lucas GM, Soibelman L. Using a community-engaged approach to develop a safe and effective teleoperation workstation in construction. Paper presentation at: ASPIRE - International Meeting of the Human Factors and Ergonomics Society, 2024; Phoenix, AZ.
11. Brun A, Lucas GM, Becerik-Gerber B, **Roll SC**, Narayanan S. Toward Occupant-Centric Virtual Agents: Office Workers' Perspectives on Technological Design and Implementation. Paper presentation at: International Workshop on Intelligent Computing in Engineering of the European Group for Intelligent Computing in Engineering, 2024; Vigo, Spain.
12. Seyedrezaei M, Becerik-Gerber B, **Roll SC**, Lucas GM. A preliminary investigation for understanding temperature's associations with office workers' psychological well-being: A close look into anxiety, motivation, and concentration. Paper presentation at: International Conference on Computing in Civil Engineering, 2024; Pittsburgh, PA.
13. **Roll SC**, Evans KD, Sommerich CM. The sonography grand challenge longitudinal research study: A national effort to improve healthcare workforce health and well-being. Paper presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.

14. Parga MR*, Evans KD, Sommerich CM, Stigall-Weikle AN, **Roll SC**. Importance of representation throughout the organizational environment to support risk reduction in hospital systems. Paper presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.
15. **Roll SC**, Marchioni M, Becerik-Gerber B. Well-being and inclusion in the built environment: Integrating an occupational perspective into an emerging transdisciplinary field. Paper presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
16. Fang Y*, Baker NA, Dole J, **Roll SC**. Developing a quality evaluation method for occupational therapy patient education materials: The case of carpal tunnel syndrome. Paper presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
17. Fukumura YE*, Kijel MT*, Xiao Y, Becerik-Gerber B, Lucas GM, **Roll SC**. Artificial intelligence to support worker health, well-being, and participation: Using an occupational lens for workplace technology development. Paper presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
18. Loomis KJ*, Hardison ME, **Roll SC**. An exploration of therapist-patient relationships in outpatient physical rehabilitation. Paper presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
19. Tung KD*, Fukumura YE*, Baker NA, Forrest JL, **Roll SC**. Identifying an optimal sampling method to estimate postural risk in a dynamic work task. Paper presentation at: 2019 International Annual Meeting of the Human Factors and Ergonomics Society, 2019; Seattle, WA.
20. **Roll SC**, Melrose D, Forrest JL. Implementation of ergonomic, observational techniques that empower dental hygiene educators, practitioners, and students to reduce the risk of work-related injuries. Workshop presentation at: International Symposium on Dental Hygiene, 2019; Brisbane, Australia.
21. Beleno J, Melrose MD, Wilkins K, Forrest JL, Mack WJ, **Roll SC**. Identifying risk of upper extremity injuries in dental hygiene professionals. Paper presentation at: Annual Meeting of the Canadian Dental Hygienists Association, 2017; Ottawa, Canada.
22. **Roll SC**, Gray JM, Frank G. Competency development and complexities of clinical integration of musculoskeletal sonography by non-physician rehabilitation providers. Paper presentation at: 15th World Congress of Ultrasound in Medicine and Biology 2015; Orlando, FL.
23. Evans KD, Volz KR, Pargeon R, **Roll SC**. Musculoskeletal sonography: Evaluation of the carpal tunnel and median nerve. Paper presentation at: International Foundation for Sonography Education and Research Symposium 2012; Las Cruces, New Mexico.
24. **Roll SC**, Evans KD, Freimer ML, Case-Smith J, Sommerich CM. Relationship of median nerve ultrasonographic measures to anthropometric and demographic factors for diagnosis of carpal tunnel syndrome. Paper presentation at: 13th World Congress of Ultrasound in Medicine and Biology 2011; Vienna, Austria.
25. Evans KD, **Roll SC**, Volz KR, Sommerich CM. Spectral Doppler measurement of perineural flow within the median nerve compared to nerve conduction studies. Paper presentation at: 13th World Congress of Ultrasound in Medicine and Biology 2011; Vienna, Austria.
26. Evans KD, **Roll SC**, Volz KR, Sommerich CM. Ultrasound contrast-enhanced interrogation of the median nerve to document peripheral vascular flow in an animal model. Paper presentation at: 13th World Congress of Ultrasound in Medicine and Biology 2011; Vienna, Austria.

National

27. Song MJ*, Parga MR*, **Roll SC**. Occupational science at the table: Shaping the future of human-centered technology. Panel presentation at: 24th Annual Conference of the Society for the Study of Occupation: USA, 2026; Portland, ME. (*accepted and pending*)
28. Loomis KJ, **Roll SC**. Hand therapy clinical documentation: Examination of processes and material via clinician interviews. Paper presentation at: American Society of Hand Therapists Annual Meeting, 2026; Milwaukee, WI. (*accepted and pending*)

29. **Roll SC**, Evans KD, Sommerich CM. Exploring work-related musculoskeletal discomfort trajectories and associated work system factors in a cohort of sonographers and vascular technologists. Short course at: Society of Diagnostic Medical Sonography Annual Conference, 2026; Atlanta, GA. (*accepted and pending*)
30. **Roll SC**, Parga MR*, Becerik-Gerber B, Lucas GM, Narayanan S. Office workers' perceptions of work-related stress: A step toward identifying typologies for tailored stress-management interventions. Paper presentation at: 14th Annual Occupational Therapy Summit of Scholars, 2026; St. Louis, MO.
31. **Roll SC**, Walsh RJ*, Fang Y. Supporting workers' health, well-being, and occupational performance in the workplace of tomorrow, today. Short course at: American Occupational Therapy Association Annual Conference, 2026; Anaheim, CA.
32. Walsh RJ*, **Roll SC**, Fang Y. Working for workers: An introduction to occupational therapy's role in workplace wellness programs. Short course at: American Occupational Therapy Association Annual Conference, 2026; Anaheim, CA.
33. Fang Y*, Aldrich R, Lucas GM, **Roll SC**. Exploring occupational adaptation in response to the evolving nature of work in the digital age. Paper presentation at: 23rd Annual Conference of the Society for the Study of Occupation: USA, 2025; Galveston, TX.
34. Loomis KJ*, **Roll SC**. Clinical documentation practices and perspectives of hand therapists: A cross-sectional survey study. Paper presentation at: American Society of Hand Therapists Annual Meeting, 2025; Salt Lake City, UT.
35. **Roll SC**, Parga MR*, Becerik-Gerber B, Lucas GM, Narayanan S. Understanding worker stress at the intersection of activity, environment, and individual perceptions. Paper presentation at: 13th Annual Occupational Therapy Summit of Scholars, 2025; Seattle, WA.
36. Walsh RJ*, **Roll SC**, Evans KD, Sommerich CM. Exploring work-related musculoskeletal disorder trajectories and associated work systems factors in healthcare workers. Paper presentation at: 13th Annual Occupational Therapy Summit of Scholars, 2025; Seattle, WA.
37. **Roll SC**, Parga MR*, Becerik-Gerber B, Lucas GM, Narayanan S. Mapping occupational factors that influence work-related stress within real-world contexts. Paper presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.
38. **Roll SC**, Fukumura YE*. The intersection of occupational and well-being in musicians: A mixed method study. Paper presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.
39. Aldrich RM, Wilcox J, **Roll SC**, Nguyen G. Patient, provider, and employer perspectives on post-COVID return-to-work: Deepening knowledge about occupational disruptions. Paper presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.
40. Aldrich RM, Dlamini Z*, Parga MR*, Schacter A, Walsh RJ*, Nguyen G, Wilcox J, **Roll SC**. Understanding the occupational impacts of post-COVID conditions: Implications for return-to-work processes. Paper presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.
41. Loomis KJ*, Khese T*, Lin E*, **Roll SC**. Paving the way for large-scale hand therapy research: A researcher network analysis. Paper presentation at: American Society of Hand Therapists Annual Meeting, 2024; St. Louis, MO.
42. Fang Y*, Liu J, **Roll SC**. Unlocking pathways for occupational therapy in work and industry. Short course at: American Occupational Therapy Association Inspire Annual Conference, 2024; Orlando, FL.
43. Fukumura YE*, **Roll SC**. Centering occupation in injury prevention: Perspectives in understanding the musician. Paper presentation at: 21st Annual Conference of the Society for the Study of Occupation: USA, 2023; St. Louis, MO.
44. Loomis KJ*, **Roll SC**. Is the collective definition of occupation-based therapy exclusionary? Paper presentation at: 21st Annual Conference of the Society for the Study of Occupation: USA, 2023; St. Louis, MO.
45. Parga M*, Fang Y*, **Roll SC**. OS at work: Transdisciplinary opportunities to improve health and occupational performance in technology-enabled workplaces. Panel presentation at: 21st Annual Conference of the Society for the Study of Occupation: USA, 2023; St. Louis, MO.

46. **Roll SC**, Fukumura YE*, Sommerich CM, Evans KD. Is ergonomics enough? Appreciating multilayered transactions within work systems to support worker health and well-being. Paper presentation at: 21st Annual Conference of the Society for the Study of Occupation: USA, 2023; St. Louis, MO.
47. Fang Y*, Liu J*, **Roll SC**. Challenges and opportunities in work and industry OT practice: An online survey. Paper presentation at: 11th Annual Occupational Therapy Summit of Scholars, 2023; Columbus, OH.
48. Fukumura YE*, Sommerich CM, Stigall-Weikle N, Evans KD, **Roll SC**. Understanding work system transactions in the workplace: An application study of sonographers. Paper presentation at: 11th Annual Occupational Therapy Summit of Scholars, 2023; Columbus, OH.
49. Loomis KJ*, **Roll SC**. Understanding the multidimensional hand therapy process: Building foundational knowledge to comprehensively capture practice-based data. Paper presentation at: 11th Annual Occupational Therapy Summit of Scholars, 2023; Columbus, OH.
50. Loomis KJ*, Shin J*, **Roll SC**. Musculoskeletal ultrasonography to support upper extremity rehabilitation: A scoping review. Paper presentation at: American Society of Hand Therapists Annual Meeting, 2022; Washington, DC.
51. Fang Y*, **Roll SC**. Evaluating the content and design of client education materials to develop or identify high-quality resources. Short course at: American Occupational Therapy Association Inspire Annual Conference, 2022; San Antonio, TX.
52. Takata SC*, **Roll SC**. Identifying critical therapeutic windows in the postsurgical recovery timeline for flexor tendon repairs to optimize functional outcomes. Short course at: American Occupational Therapy Association Inspire Annual Conference, 2022; San Antonio, TX.
53. **Roll SC**, Takata SC*, Yao B*, Mack WJ. Reference values for cross-sectional area of the median nerve: A meta-analysis. Paper presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2022; San Diego, CA.
54. **Roll SC**, Becerik-Gerber B, Lucas GM, Awada M, Xiao Y. Healthy occupational engagement in built environments: Lessons learned from work-from-home transitions during COVID-19. Paper presentation at: 27th USC Chan Occupational Science Symposium, 2021; *presented virtually due to COVID-19*.
55. Fukumura YE*, Becerik-Gerber B, Lucas GM, **Roll SC**. Impact of COVID-19 on work: The transactional nature of work from home. Paper presentation at: 27th USC Chan Occupational Science Symposium, 2021; *presented virtually due to COVID-19*.
56. Yao B*, **Roll SC**. Comparing median nerve displacement and sliding during gripping between dominant and non-dominant hands. New Investigator Award Competition presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2021; *presented virtually due to COVID-19*.
57. **Roll SC**. A transdisciplinary approach to designing intelligent workspaces that promote health, well-being, and human performance. Panel presentation at: Health in Buildings Roundtable Conference, National Institutes of Health, 2020; *accepted, but canceled due to COVID-19*.
58. Yao B*, Gan K*, Lee A*, **Roll SC**. Comparison between objective and subjective sonography evaluation of median nerve shape in the carpal tunnel during finger movement. Paper presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2020; *presented virtually due to COVID-19*.
59. Pozzi F, Sousa CO, Plummer H, Andrade B, Hewus A, Kono N, Mack W, **Roll S**, Michener L. Repetitive dental hygienist job-related tasks increase the risk of shoulder pain and altered supraspinatus morphology. Paper presentation at: Combined Sections Meeting (CSM) of the American Physical Therapy Association, 2020; Denver, CO.
60. **Roll SC**, Takata SC*, Fukumura YE*. Linking occupation to physical and psychological stress: Implications for students in healthcare professions. Paper presentation at: 18th Annual Research Conference of the Society for the Study of Occupation: USA, 2019; Scottsdale, AZ.
61. Takata SC*, **Roll SC**. Sonographic prevalence of space-occupying long flexor muscle bellies in the carpal tunnel of healthy individuals. New Investigator Award Competition presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2019; Orlando, FL.

62. **Roll SC**, Takata SC*, Rocker J, Aguillon A. Alice in anatomy-land: Using sonography to step through the looking glass and evaluate anatomy in the treatment of musculoskeletal conditions. Tech Lab presentation at: 97th Annual Conference of the American Occupational Therapy Association, 2019; New Orleans, LA.
63. **Roll SC**, Hardison ME*, Baker NA. Characterizing occupational tasks of dental hygiene students to identify risks of developing musculoskeletal disorders. Paper presentation at: 7th Annual Occupational Therapy Summit of Scholars, 2018; Kansas City, MO.
64. **Roll SC**, Hardison ME*, Colclazier NL*. Risk assessment for musculoskeletal strain among dental hygienists: Validity and reliability of a video observation technique. Paper presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2018; Salt Lake City, UT.
65. Takata SC*, Wade E*, **Roll SC**. Linking research to practice for upper extremity musculoskeletal disorders: Interventions, outcomes, and diagnoses examined over the last 10-years. Paper presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2018; Salt Lake City, UT.
66. Takata SC*, **Roll SC**. Patient experiences of participating in mind-body interventions in an outpatient rehabilitation setting. Paper presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2018; Salt Lake City, UT.
67. Hardison ME*, **Roll SC**. Effects of mind-body interventions on stress, anxiety, and pain in hand therapy patients. Paper presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2018; Salt Lake City, UT.
68. Hardison ME*, Takata SC*, Carandang K, **Roll SC**. Using patient experiences of health management occupations to guide research on medical adherence. Panel presentation at: 16th Annual Research Conference of the Society for the Study of Occupation: USA, 2017; Seattle, WA.
69. Takata SC*, Wade E*, **Roll SC**. Linking research to practice in hand therapy: A mapping review. Paper presentation at: 40th Annual Conference of the American Society of Hand Therapists, 2017; Anaheim, CA.
70. Takata SC*, **Roll SC**. Relationship of internal carpal tunnel measurements to external wrist-ratio: Implications for prevention of carpal tunnel syndrome. Paper presentation at: 6th Annual Occupational Therapy Summit of Scholars, 2017; Boston, MA.
71. **Roll SC**, Mitchell J. Relationship of internal carpal tunnel measurement to external wrist-ratio: Implications for prevention and diagnosis. Paper presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2017; Orlando, FL.
72. **Roll SC**, Aguillon A. Diagnostic ultrasonography: A clinical tool for occupational therapists. Tech Day presentation at: 95th Annual Conference of the American Occupational Therapy Association, 2017; Philadelphia, PA.
73. **Roll SC**, Gray JM, Frank G. Training and competency development for clinical implementation of musculoskeletal sonography by hand therapists. Paper presentation at: 39th Annual Meeting of the American Society of Hand Therapists, 2016; Washington, DC.
74. Hardison ME*, **Roll SC**. Integrating evidence and client perspectives for the use of mindfulness interventions in hand therapy. Paper presentation at: 39th Annual Meeting of the American Society of Hand Therapists, 2016; Washington, DC.
75. **Roll SC**, Mack WJ, Forrest JL, Baker LL, Baker NA. Identification of early-stage median nerve pathology: Protocol for a longitudinal, multiple cohort study. Paper presentation at: 5th Annual Occupational Therapy Summit of Scholars, 2016; Pittsburgh, PA.
76. Hardison ME*, Black DS, **Roll SC**. Effects of mind-body interventions on stress, anxiety, and pain in hand therapy. Paper presentation at: 5th Annual Occupational Therapy Summit of Scholars, 2016; Pittsburgh, PA.
77. **Roll SC**, Gray JM, Frank G, Wolkoff M*. Therapist perceptions of the utility of sonographic imaging in the rehabilitation of musculoskeletal disorders. Paper presentation at: 4th Annual Occupational Therapy Summit of Scholars, 2015; Los Angeles, CA.
78. **Roll SC**, Evans KD, Sommerich CM. Longitudinal changes in median nerve morphology due to physical work exposure. Paper presentation at: 3rd Annual Occupational Therapy Summit of Scholars, 2014; Philadelphia, PA.

79. **Roll SC**, Rocker JD, Aguillon A. Enhancing treatment for patients with pain and limitations in functional hand use with sonography. Short course presentation at: 94th Annual Conference of the American Occupational Therapy Association, 2014; Baltimore, MD.
80. **Roll SC**, Rocker JD, Aguillon A. Dynamic, real-time visualization of musculoskeletal tissues using sonography. Tech presentation at: 94th Conference of the American Occupational Therapy Association, 2014; Baltimore, MD.
81. **Roll SC**, Rocker JD, Aguillon A, Wolkoff M. If only I could see inside! Cutting-edge use of sonography to enhance upper extremity orthopedic rehabilitation. Workshop presentation at: 93rd Annual Conference of the American Occupational Therapy Association, 2013; San Diego, CA.
82. **Roll SC**, Selhorst L*, Evans KD. Using the Rapid Upper Limb Assessment to associate upper extremity positioning with musculoskeletal discomfort. Paper presentation at: 93rd Annual Conference of the American Occupational Therapy Association, 2013; San Diego, CA.
83. **Roll SC**, Evans KD, Sommerich CM. Longitudinal analysis of grey scale imaging and electromyography in an animal model of carpal tunnel syndrome. New Investigator Award Competition presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2013; New York, NY.
84. **Roll SC**, Evans KD, Case-Smith J. Predicting symptoms and decreased function due to carpal tunnel syndrome with sonographic imaging. Research platform presentation at: 92nd Annual Conference of the American Occupational Therapy Association, 2012; Indianapolis, IN.
85. **Roll SC**, Evans KD. Visualization of changes in the median nerve in carpal tunnel syndrome. Research platform presentation at: 92nd Annual Conference of the American Occupational Therapy Association, 2012; Indianapolis, IN.
86. **Roll SC**. Diagnostic ultrasonography: A clinical tool for occupational therapists. Tech day presentation at: 92nd Annual Conference of the American Occupational Therapy Association, 2012; Indianapolis, IN.
87. **Roll SC**. A novel method for measuring acute physiologic changes in the median nerve at the worksite. Paper presentation at: 90th Annual Conference of the American Occupational Therapy Association, 2010; Orlando, FL.

State/Regional

88. **Roll SC**. Can I return to work? Evaluation of physical capacities and work-readiness. Workshop presentation at: Annual Conference of the Occupational Therapy Association of California, 2012; Pasadena, CA.

Peer-Reviewed Poster Presentations

[Appendix B](#) provides a complete list of 118 peer-reviewed posters at international, national, and regional conferences.

GRANTS, CONTRACTS, and OTHER RESEARCH FUNDING

Extramural Federal and Foundation Funding

Principal Investigator and Multiple Principal Investigator (\$8,664,236)

1. **Remote-operated construction work: VR-based training and emerging safety needs**
Sponsor: R01-OH01286, National Institute for Occupational Safety and Health (NIOSH/CDC)
Role: Principal Investigator (MPI)
Percentage of Effort: 15%
Funding and Project Dates: \$2,494,788; September 2026 – August 2030
Overall Goals: The project explores factors associated with the safe, effective use of remote-operated construction equipment and evaluates a novel, enriched VR-based training program to reskill and upskill workers in the age of technology.

- 2. Detecting and mapping stress patterns across space and time: Multimodal modeling in real-world work environments**
Sponsor: IIS-2204942, National Science Foundation (NSF), Smart and Connected Health (SCH) Program
Role: Principal Investigator
Percentage of Effort: 10%
Funding and Project Dates: \$1,199,985; September 2022 – February 2027
Overall Goals: This project aims to describe individualized experiences of stress and to develop multimodal models that use a wide range of biosensor, behavioral, environmental, and activity-engagement sensing technologies to inform personalized, automated, or technology-supported intervention approaches for stress management as workers engage in their daily work.
- 3. Demolishing barriers in future construction operations by providing multi-sensory capabilities for effective remote work**
Sponsor: ECCS-2222572, National Science Foundation (NSF), Future of Work at the Human-Technology Frontier Program
Role: Co-Principal Investigator
Percentage of Effort: 10%
Total Funding and Project Dates: \$1,799,999; October 2022 – September 2027
Overall Goals: This project aims to integrate existing and novel technologies to create a multi-sensory teleoperation workstation that promotes safe, effective construction work and increases diversity in the construction workforce.
- 4. Mitigating risk and promoting occupational safety and health when developing and integrating AI in the workplace**
Sponsor: IPA-2216235, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control (CDC)
Role: Governmental Assignee / Principal Investigator
Percentage of Effort: 15%
Funding and Project Dates: \$104,226; September 2022 – August 2025
Overall Goals: This project aimed to identify hazards of artificial intelligence (AI) in the workplace (e.g., situational awareness, training, trust) to develop a preliminary framework for assessing the occupational health and safety of novel workplace AI.
- 5. Documenting progression of acute to chronic musculoskeletal injuries: A national survey of ultrasound users**
Sponsor: Society for Diagnostic Medical Sonography Foundation
Role: Co-Principal Investigator
Percentage of Effort: 10%
Funding and Project Dates: \$50,817; May 2022 – December 2022
Overall Goals: This study established a national registry of ultrasound users to examine the multifaceted contributors to work-related injuries and identify solutions to promote health and well-being in the workforce.
- 6. Symbiotic coevolution of intelligent office desks and human users to promote productivity, health, and wellness**
Sponsor: CMMI-1763134, National Science Foundation (NSF), Mind Machine and Motor Nexus Program
Role: Co-Principal Investigator
Percentage of Effort: 10%
Funding and Project Dates: \$687,100; August 2018 – December 2022
Overall Goals: This project envisioned an intelligent workstation that learns office worker preferences and patterns through sensing, feedback, and control, adjusting itself and the environment to moderate poor worker behavior.
- 7. Sonographic tissue morphology in early-stage work-related median nerve pathology**
Sponsor: R01-OH010665, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control (CDC)
Role: Principal Investigator
Percentage of Effort: 50%
Funding and Project Dates: \$2,324,186; October 2015 – September 2020
Overall Goals: This study evaluated the effects of intensive hand activity on tissue morphology, discomfort, and occupational performance to develop screening techniques for the early detection of median nerve injury in the workplace.
- 8. Effects of mind-body interventions on stress, anxiety, and pain in hand therapy patients**
Sponsor: American Society of Hand Therapists, Founders Grant
Role: Principal Investigator
Percentage of Effort: 20%
Funding and Project Dates: \$3,135; July 2014 – June 2015
Overall Goals: This project aimed to evaluate the proximal effects of mindfulness and visual biofeedback on stress, anxiety, and pain in patients receiving hand therapy for hand dysfunction due to an orthopedic injury.

Project Principal Investigator (\$337,614)**9. Integration of occupational therapy and sonographic imaging in research and clinical practice**

Sponsor: K12-HD055929, National Center for Medical Rehabilitation Research (NCMRR), National Institute of Child Health and Human Development (NICHD/NIH), Rehabilitation Research Career Development (RRCD) Program

Role: Project PI (PI: K Ottenbacher)

Percentage of Effort: 75%

Funding and Project Dates: \$337,614 (*allocated to SC Roll*); September 2011 – August 2016

Overall Goals: This project supported skill development in qualitative inquiry and musculoskeletal sonography to evaluate the translation of sonography into a tool for the prevention, assessment, and rehabilitation of musculoskeletal disorders.

Co-Investigator, Collaborator, and Mentor (\$687,961)

(*asterisk indicates direct mentee)

10. Work pattern boundedness and occupational stress: A study of environmental and organizational drivers in hybrid work

Sponsor: UCLA, Southern California NIOSH Education and Research Center

Role: Co-Investigator / Mentoring Committee (PI: M. Seyedrezaei*)

Funding and Project Dates: \$9,995; August 2026 – July 2027

Overall Goals: This study aims to address uncertainties in multi-sensor monitoring of work and worker contexts and generate within-person estimates of occupational stress in non-standard work arrangements.

11. Data Science and Analytics for Precision Rehabilitation (DAPR) Center

Sponsor: P50-HD118603, National Institute of Child Health and Human Development (NICHD/NIH)

Role: Director of Evaluation and Pilot Project Funding Program (PI: S-L. Liew)

Funding and Project Dates: \$49,875 (*allocated to SC Roll*); September 2025 – August 2030

Overall Goals: The center aims to generate large, harmonized rehabilitation datasets that will enable artificial intelligence and machine learning methods for precision rehabilitation and improve the rigor of medical rehabilitation research.

12. Understanding social determinants of health and health disparities in emerging work contexts

Sponsor: F32-MD020253, National Institute on Minority Health and Health Disparities (NIMHD/NIH)

Role: Sponsor / Lead Mentor (PI: R. Walsh*)

Funding and Project Dates: \$224,868

Status: Funded, October 2024 – September 2027

Overall Goals: The project aims to learn how the effects of emergent work intersect with workers' ability to flourish and live meaningful, productive lives in their communities.

13. Exploring occupational adaptation in response to the evolving nature of work in the digital age

Sponsor: Society for the Study of Occupation: USA

Role: Lead Mentor (PI: Y. Fang*)

Funding and Project Dates: \$1,000; September 2024 – August 2026

Overall Goals: This project aimed to characterize occupational adaptation in the context of workplace technology transformations and explore the relationship between occupational adaptation and worker health and well-being.

14. Informing a precision medicine approach to post-surgical flexor tendon rehabilitation using sonography

Sponsor: American Hand Therapy Foundation

Role: Co-Investigator / Lead Mentor (PI: S. Takata*)

Funding and Project Dates: \$6,350; July 2019 – June 2023

Overall Goals: This project aimed to identify the most sensitive sonographic measures associated with recovery in patients after repair of hand flexor tendons to inform treatment planning and reduce post-surgical complications.

15. Standardizing a rigorous Doppler sonographic protocol to examine intraneural blood flow within the median nerve

Sponsor: Society for Diagnostic Medical Sonography Foundation

Role: Co-Investigator / Lead Mentor (PI: B. Yao*)

Funding and Project Dates: \$4,000; January 2022 – December 2022

Overall Goals: This project developed and validated a standardized imaging protocol to measure blood flow in the median nerve and identified the effects of environmental conditions and engagement in various occupational activities.

16. Automated detection of stress in offices using machine learning

Sponsor: UCLA, Southern California NIOSH Education and Research Center

Role: Co-Investigator / Mentoring Committee (PI: M. Awada*)

Funding and Project Dates: \$6,585; August 2021 – July 2022

Overall Goals: This study simulated office work stressors to examine automated stress detection and to identify physiological and behavioral features to refine and establish generalized stress-detection algorithms with high accuracy.

17. Novel precision medicine approach to advance rehabilitation of surgically repaired tendons of the hand

Sponsor: F31-AR074894, National Institute for Arthritis and Musculoskeletal and Skin Disorders (NIAMS/NIH)

Role: Sponsor / Lead Mentor (PI: S. Takata*)

Funding and Project Dates: \$103,454; August 2019 – January 2022

Overall Goals: This predoctoral fellowship provided training in sonographic imaging and research methods to evaluate healing and recovery after repair of hand flexor tendons and to identify the most sensitive measures associated with recovery.

18. Development of a sonographic image acquisition and analysis protocol for surgically repaired flexor tendons of the hand

Sponsor: Society for Diagnostic Medical Sonography Foundation

Role: Co-Investigator / Mentor (PI: S. Takata*)

Funding and Project Dates: \$5,000; April 2019 – December 2021

Overall Goals: This project aimed to develop a reliable imaging protocol to evaluate morphology in individuals following hand flexor tendon repair and to identify the most sensitive measures of recovery across rehabilitation phases.

19. Quantifying sonographic changes in upper extremity tissue integrity following application of negative pressure in patients with systemic sclerosis: A feasibility study

Sponsor: Lymphatouch, Inc

Role: Consultant (PI: Susan Murphy)

Funding and Project Dates: \$9,000; March 2019 – February 2020

Overall Goals: This feasibility study identified the optimal sonographic methods for upper extremity outcomes in the treatment of patients with systemic sclerosis.

20. Integrating mindfulness-based interventions with outpatient rehabilitation in hand therapy

Sponsor: California Foundation for Occupational Therapy

Role: Lead Mentor (PI: M. Hardison*)

Funding and Project Dates: \$3,000; October 2017 – May 2019

Overall Goals: This project aimed to understand the psychosocial needs of hand therapy clients and to develop a holistic model for hand therapy intervention that integrates mindfulness-based meditations into therapy sessions.

21. An experimental investigation utilizing portable ultrasound and Doppler as a diagnostic alternative in CTS

Sponsor: R21-OH009907, National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control (CDC)

Role: Co-Investigator (PI: K. Evans)

Funding and Project Dates: \$265,834; September 2010 – August 2012

Overall Goals: This study assessed the progression of median nerve neuropathy and the utility of portable ultrasound for tracking pathology via morphological changes in a non-human primate model of carpal tunnel syndrome (CTS).

Intramural University Funding***Principal Investigator and Multiple Principal Investigator (\$247,600)*****22. Understanding work as a social determinant of health**

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$6,000; August 2025 – May 2026

Overall Goals: This project engaged undergraduate students in data analysis to understand work as a social determinant of health, thereby informing tailored health promotion interventions for workers at risk of health disparities.

23. Understanding individual experiences of work-related stress among office workers

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$6,000; August 2024 – May 2025

Overall Goals: This project engaged undergraduate students in the collection, management, and analysis of mixed-methods data examining the physical, social, and personal factors associated with work-related stress among office workers.

24. USC Center for Mindfulness Science

Sponsor: USC Collaboration Fund, USC Office of Research

Role: Co-Principal Investigator / Co-Director

Funding and Project Dates: \$180,000; July 2018 – June 2024

Overall Goals: This center contributed to an understanding of processes underlying mindfulness, the relationship between mindfulness and well-being, and the impact of mindfulness practice on wellness and clinical outcomes across the lifespan.

25. Median nerve mobility: Changes across time and associations with personal/work factors

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$6,000; August 2020 – May 2021

Overall Goals: This project engaged undergraduate students in analyzing sonographic images of the median nerve during handgrip to examine associations between these changes and symptomatology among dental hygiene students.

26. Observational assessment of injury risk in dental hygiene practice

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$4,600; August 2019 – May 2020

Overall Goals: This project engaged undergraduate students in the analysis of dental hygiene practice to examine dental scaling tasks and identify factors related to symptomatology and median nerve changes in dental hygiene students

27. Association of nerve movement during functional hand use to pathology development in dental hygienists

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$6,000; August 2018 – May 2019

Overall Goals: This project engaged undergraduate students in analyzing sonographic images of the median nerve to identify morphological characteristics, dynamic movements, and changes indicative of nerve entrapment.

28. Identifying risk of musculoskeletal injury in dental hygiene practice

Sponsor: Undergraduate Research Associates Program Grant, USC Office of Undergraduate Programs

Role: Principal Investigator

Funding and Project Dates: \$9,000 (including \$4,500 division cost-share); August 2017 – May 2018

Overall Goals: This project engaged undergraduate students in analyzing dental hygiene practice to examine dental scaling tasks and identify factors related to symptomatology and median nerve changes in dental hygiene students.

29. Integrating electromyography and sonographic imaging for evidence-based therapy for chronic pelvic pain

Sponsor: Southern California Clinical and Translational Science Institute, Pilot Grant

Role: Principal Investigator (Multiple PI)

Funding and Project Dates: \$30,000; July 2012 – June 2013

Overall Goals: This study used innovative sonographic techniques and electromyography (EMG) recordings to identify important biomarkers of chronic prostatitis/chronic pelvic pain syndrome (CP/CPPS) to improve clinical screening practices.

Co-Investigator, Collaborator, and Mentor (\$58,605)

(*asterisk indicates direct mentee)

30. Occupational disruptions due to work-related musculoskeletal discomfort and burnout among sonographers

Sponsor: Individual Provost Fellowship for Undergraduates; USC Provost's Office

Role: Mentor (PI: M. Cheng*)

Funding and Project Dates: \$3,000; June 2026 – August 2026

Overall Goals: The goal of this individual fellowship is to understand how musculoskeletal discomfort and burnout among sonographers contribute to occupational disruptions and other shifts in workers' identity.

31. Facilitating post-COVID return-to-work: Triangulation of patient, provider, and employer perspectives

Sponsor: USC Chan ReSPONs Initiative

Role: Collaborator (PI: R. Aldrich)

Funding and Project Dates: \$49,605; February 2023 – January 2024

Overall Goals: The project aimed to support post-COVID return-to-work (RTW) by identifying facilitators and barriers through the perspectives of patients, healthcare providers, and human resources professionals.

32. Dental hygienist behaviors as precursors for the development of work-related musculoskeletal disorders

Sponsor: Individual Provost Fellowship for Undergraduates; USC Provost's Office

Role: Mentor (PI: T. Willie*)

Funding and Project Dates: \$5,000; June 2021 – May 2022

Overall Goals: The goal of this individual fellowship was to examine the contributions of posture, positioning, and repetitive activity to musculoskeletal pain development among dental hygiene students.

33. Determining the validity and reliability of ergonomic assessment tools used in dental hygiene practice

Sponsor: Individual Provost Fellowship for Undergraduates; USC Provost's Office

Role: Mentor (PI: S. Randolph*)

Funding and Project Dates: \$1,000; September 2018 – December 2018

Overall Goals: This individual fellowship evaluated the validity and reliability of a new, simple tool for detecting risky postures in dental hygiene practice to be used as a self-assessment in dental hygiene education or clinical practice.

SCHOLARSHIP IN PROGRESS**Peer-Reviewed Manuscripts: In Review**

(*asterisk indicates direct mentee and underline indicates senior author(s) on publication, when applicable)

1. Baranek G, Sopkin E, Aldrich R, McNulty M, **Roll SC**, Wilcox J, Lawlor M, McLaughlin Gray J, Uyeshiro Simon A. A model of knowledge mobilization for occupational science and occupational therapy: Process and product. *Canadian Journal of Occupational Therapy*.
2. Dlamini PZ, Aldrich RM, Wilcox J, Crowe B, Youell C, **Roll SC**. Reconstructing self through disruption: Exploring occupational identity shifts in individuals with Long COVID. *Journal of Occupational Science*.
3. Fang Y, Lucas GM, Aldrich RM, Marti D, Roll SC. Beyond technology acceptance and use: Worker adaptation to emerging technologies in construction workplaces. *International Journal of Human-Computer Interaction*.
4. Fang Y, Rodrigues PB, Wang Z, Lucas GM, Becerik-Gerber B, Soibelman L, Roll SC. Exploring construction innovation through contexts of demolition work: A path toward human-centered construction 5.0. *Journal of Construction Engineering and Management*.
5. Hernandez R, Schneider S, Angrisani M, Lucas GM, Becerik-Gerber B, Narayanan S, Jin H, Ginsberg JP, **Roll SC**. Using fitness tracker derived sleep HRV to track daily strain in naturalistic settings: Evidence from EMA studies of workers and caregivers. *Human Factors*.
6. Loomis KJ, Valdes K, **Roll SC**. Clinical documentation practices and perspectives of U.S.-based hand therapists: A cross-sectional survey study. *Journal of Hand Therapy*.
7. Walsh RJ*, **Roll SC**, Sideris J, Evans KD, Sommerich CM. Work-related shoulder, neck, and hand/wrist discomfort trajectories in imaging health care workers: An interim analysis. *Journal of Occupational and Environmental Medicine*.
8. Wang Z, Rodrigues PB, Fang Y, Rathi V, Lucas GM, **Roll SC**, Becerik-Gerber B, Soibelman L. Characterizing operators' perceived information needs in teleoperated demolition across task contexts and operator characteristics. *Advanced Engineering Informatics*.

Peer-Reviewed Manuscripts: In Preparation

(*asterisk indicates direct mentee and underline indicates senior author(s) on publication, when applicable)

1. **Roll SC**, Dlamini Z*, Evans KD, Sommerich CM. Sonography workplace culture and climate: Exploring the prevalence of discrimination and harassment. *Journal of Diagnostic Medical Sonography*.

2. **Roll SC**, Wilcox J, Crowe B, Youell C, Aldrich RM. Partnering to identify practices, policy, and research priorities for return-to-work with long COVID. *Progress in Community Health Partnerships: Research, Education, and Action*.
3. **Roll SC**, Takata SC. Measuring sonographic biomarkers of healing over time: A case study of functional recovery after flexor tendon surgery. *Journal of Diagnostic Medical Sonography*.
4. Parga MR*, **Roll SC**, Okundolor C*, Lucas GM, Becerik-Gerber B, Narayanan S. Identifying stress mindsets: A qualitative exploration of office worker stress. *Occupational Therapy Journal of Research*.
5. Reyes M, Zang T, Seyedrezaei M, Liu R, Becerik-Gerber B, Lucas GM, **Roll SC**, Narayanan S. Sleep-work dynamics in naturalistic settings: A four-month longitudinal study. *Sleep Health Journal*.
6. Song MJ*, Parga MR*, Lucas GM, Aldrich RM, **Roll SC**. Human-centered technology: Opportunities for occupational science in the era of digitalization and automation. *Journal of Occupational Science*.
7. Zareno K, Avramidis K, Zhou E, Becerik-Gerber B, Lucas GM, McDuff D, **Roll SC**, Narayanan S. Learning context-aware physiological baselines from wearable data. *Scientific Reports*.
8. Zang T, Awada M, Becerik-Gerber B, **Roll SC**, Lucas GM, Narayanan S. What makes workers feel sick and recover? Exploring symptom dynamics through longitudinal environmental exposure modeling. *Building and Environments*.

Books, Chapters, and Practice Guidelines: Forthcoming and In Preparation

1. Loomis KJ, **Roll SC**. Psychosocial assessment. In: *Clinical Assessment Recommendations*. 4th ed. American Society of Hand Therapists. In preparation.
2. Rogers SL, Rafeedie SH, **Roll SC**, eds. *Rybyski's Kinesiology for Occupational Therapy*. 4th ed. In preparation.

HONORS and AWARDS

Stephen McLaughlin Memorial Lectureship Award – Society of Diagnostic Medical Sonography (2026)
Mentoring Award for Faculty Mentoring Graduate Students – University of Southern California, Office of the Provost (2026)
Kenneth R. Gottesfeld Award, 1st Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2025)
Kenneth R. Gottesfeld Award, 1st Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2024)
Kenneth R. Gottesfeld Award, 2nd Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2024)
Distinguished Sonographer Award – American Institute of Ultrasound in Medicine (April 2024)
Academy of Research – American Occupational Therapy Foundation (April 2021)
Fellow – American Institute of Ultrasound in Medicine (November 2019)
Sonographer Scientific Poster Competition, 1st Place – Society of Diagnostic Medical Sonography (October 2017)
Senior Membership – American Institute of Ultrasound in Medicine (March 2016)
Roster of Fellows – American Occupational Therapy Association (April 2015)
Kenneth R. Gottesfeld Award, 2nd Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2013)
Kenneth R. Gottesfeld Award, 3rd Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2013)
Sonographer Scientific Poster Competition, 1st Place – Society of Diagnostic Medical Sonography (October 2013)
New Investigator Award, Finalist – American Institute of Ultrasound in Medicine (April 2013)
Outstanding PhD Graduate Student – School of Allied Medical Professions, The Ohio State University (May 2010)
Kenneth R. Gottesfeld Award, 1st Place – Outstanding Research Publication, Journal of Diagnostic Medical Sonography (2009)
Phi Kappa Phi – Inducted, Graduate Honor Society, The Ohio State University (2008)
Award of Merit – School of Allied Medical Professions, The Ohio State University (June 2002)
Denman Undergraduate Research Forum – Selected Participant (May 2002)
Ohio State University Undergraduate President's Salute – Honoree, President William Kirwin (February 2002)
Pi Theta Epsilon – Inducted, National Occupational Therapy Honor Society, The Ohio State University (2001)
National Collegiate Scholars – Inducted, National Undergraduate Society, The Ohio State University (2000)
Alpha Lambda Delta/Phi Eta Sigma – Inducted, National Undergraduate Honor Society; Miami University (1999)

MEDIA and PRESS

Webinars, Podcasts, and Videos

1. Work and Industry with Sunny Fang, Shawn Roll, and Mitchell Voss; Authors & Issues Session 34; American Journal of Occupational Therapy, 2024. Available 12/17/24 at: <https://www.youtube.com/watch?v=iBnodJsFvPA>
2. National Science Foundation (NSF) Multimedia Gallery: Intelligent desk that promotes office worker health, wellness, and productivity, 2019. Available 12/17/19 at: https://nsf.gov/news/mmg/mmg_disp.jsp?med_id=185956&from=
3. **Roll SC.** Center for Intelligent Environments (CENTIENTS): Consideration of humans as ‘occupational beings’ in human-building interactions, 2019. Available 6/6/19 at: <https://www.youtube.com/watch?v=97Ltm9m43Ow>
4. Dhyani M, **Roll SC**, Jacobs K. Learn at Work: A pilot study to precisely quantify forces applied by sonographers while scanning, 2018. Available 11/14/18 at: <https://www.youtube.com/watch?v=AyENk3xhTDs>
5. **Roll SC**, Scholl C. JDMS Podcast: Barriers to performing ergonomic scanning techniques for sonographers, 2018. Available 9/10/18 at: <https://soundcloud.com/jdmspodcast/barriers-to-performing-ergonomic-scanning-techniques-for-sonographers>

News and Web Articles

1. The Explorer (March 29, 2023): “Mitigating on-the-job stress: Stress mapping with artificial intelligence.” Available 3/29/23 at: https://usc dentistryresearchday.com/?page_id=56 and <https://chan.usc.edu/news/magazine/fall2023winter2024/mitigating-on-the-job-stress>
2. USC Viterbi News (March 21, 2023): “Stressed at work? USC Researchers aim to change that.” Available 3/21/23 at: <https://viterbischool.usc.edu/news/2023/03/stressed-at-work-usc-researchers-aim-to-change-that/>
3. USC Viterbi News (March 13, 2023): “The nature of dangerous construction work is radically changing.” Available 3/13/23 at: <https://viterbischool.usc.edu/news/2023/03/the-nature-of-dangerous-construction-work-is-radically-changing/>
4. American Heart Association News (April 27, 2022): “Hybrid work can be healthy at home and the office.” Available 4/27/22 at: <https://www.heart.org/en/news/2022/04/27/hybrid-work-can-be-healthy-at-home-and-the-office>
5. The Atlanta Journal-Constitution (March 18, 2022): “Survey: Remote work during pandemic causes new mental, physical issues.” Available 3/18/22 at: <https://www.ajc.com/pulse/survey-remote-work-during-pandemic-causes-new-mental-physical-issues/K6LPGPH2J5A6FLIUIZMG63GJOI/> (article picked up on multiple international websites)
6. The Horizons Tracker (February 21, 2022): “Research explores how remote work affects our health and productivity.” Available 2/21/22 at: <https://adigaskell.org/2022/02/21/research-explores-how-remote-work-affects-our-health-and-productivity/>
7. USC Chan News (November 17, 2021): “Work-from-home survey reveals pandemic’s impacts upon employees’ physical and mental health, productivity, and daily routines: How to support office workers’ health and wellness, when the “office” can be located anywhere.” Available 11/17/21 at: <https://chan.usc.edu/news/latest/work-from-home-survey-reveals-pandemics-impacts-upon-employees-physical-and-mental-health-productivity-and-daily-routines>
8. Frankfurter Allgemeine Zeitung (July 26, 2021): “Krank durchs Homeoffice [Sick Through the Home Office].” Available 7/26/21 at: <https://www.faz.net/aktuell/karriere-hochschule/welche-effekte-hat-das-homeoffice-auf-die-gesundheit-17450095.html>
9. The Ladders (December 10, 2020): “Survey reveals all the ways remote work is ruining the health of Americans.” Available 12/10/20 at: <https://www.theladders.com/career-advice/survey-reveals-all-the-ways-remote-work-is-ruining-the-health-of-americans>
10. American Dental Association News (May 24, 2019): “June JADA finds more research needed into musculoskeletal care for dental professionals.” Available 5/24/19 at: <https://www.ada.org/en/publications/ada-news/2019-archive/may/june-jada-finds-more-research>

11. USC News (April 25, 2019) and PhysOrg (April 26, 2019): "How intelligent workstations will use AI to improve health and happiness." Available 4/25/19 at: <https://news.usc.edu/155992/intelligent-workstations-desk-design/> and <https://phys.org/news/2019-04-intelligent-workstations-ai-health-happiness.html>
12. USC Chan Magazine (Spring 2019): "Designing tomorrow's workstation, today." Available 4/1/19 at: <https://chan.usc.edu/news/magazine/spring2019/designing-tomorrows-workstation-today>
13. CovalentCareers (January 30, 2018): "Mindfulness and occupational therapy: Your new secret power." Available 1/30/18 at: <https://covalentcareers.com/resources/mindfulness-occupational-therapy-new-secret-power/>
14. TONIC (Vice) (March 7, 2017): "The people who make you look good are suffering." Available 3/7/17 at: https://tonic.vice.com/en_us/article/the-people-who-make-you-look-good-are-suffering
15. US Bone and Joint Initiative Newsletter (July 2016): "Innovating musculoskeletal injury prevention, assessment, and rehabilitation." Available as of 7/1/16 at: <http://www.usbji.org/news/newsletters/july-2016>
16. ASHT Times (Summer 2016; Volume 23, Issue 2): "Advancing the field through research." Available 6/20/16 at: <http://ahint.epubxp.com/t/166675-asht-times>
17. USC News (January 21, 2016): "Can pictures prevent carpal tunnel syndrome? Using sonographic imaging, a USC professor seeks to detect the earliest signs of the disorder." Available 3/31/16 at: <http://news.usc.edu/90994/can-pictures-prevent-carpal-tunnel-syndrome/>
18. USC Chan Magazine (Winter 2015): "Picturing prevention." Available 3/31/16 at: <http://chan.usc.edu/alumni/magazine/winter2015/picturing-prevention>
19. USC Chan Magazine (Fall 2014): "Game changer: Sonography and mind-body techniques could revolutionize the way we practice hand rehabilitation." Available 3/31/16 at: <http://chan.usc.edu/uploads/magazine/USC-Chan-Magazine-fall2014.pdf>
20. USC Chan Magazine (Fall 2011): "Party of five." Available 3/31/16: <http://chan.usc.edu/alumni/magazine/fall2011/party-of-five>
21. Radiology Today (November 16, 2009): "Scanning in pain – Sonographers seek relief from job-related hazard." Available as of 3/31/16 at: <http://www.radiologytoday.net/archive/rt11609p24.shtml>
22. SDMS NewsWave (August 2009): "Latest survey shows musculoskeletal injuries among sonographers not abating.": <https://www.yumpu.com/en/document/view/4152186/latest-survey-shows-musculoskeletal-injuries-among-sonographers->

MENTORING

Faculty and Post-Doctoral Scholars

Name	Level	University	Mentoring Year(s)	Mentoring Role	Co-Authored Publications*	Co-Authored Presentations*
Raymond Hernandez	Jr. Faculty	USC	2024–	Mentor Committee (K01)	3	-
Ryan J. Walsh	Jr. Faculty	USC	2026–	Mentor Committee (K12)	-	-
	Post-Doc	USC	2023–2026	Lead Mentor	3	12
Grant:	F32 Postdoctoral Fellowship, NIH/NIMHD, 2024–27, \$224,868					
Positions:	2026–Current: Assistant Professor of Research, University of Southern California, Los Angeles, CA					
Sook-Lei Liew	Jr. Faculty	USC	2019–2021	Mentoring Committee	N/A	N/A
Kryztopher D. Tung	Post-Doc	USC	2018–2020	Lead Mentor	3	4
Positions:	2020–Current: Biomechanical Consultant, Rimkus Consulting Group					
Stefanie Bodison	Jr. Faculty	USC	2017–2018	Mentoring Committee	N/A	N/A
Manku (Rana) Dasaur	Post-Doc	USC	2012–2015	Ad Hoc Advising	1	2
Positions:	2015–2020: Healthcare Economics Consultant, UnitedHealth Group					
	2020–2022: Medical Informatics Consultant, Blue Shield of California					
	2022–Current: Principal Data Scientist and Associate Healthcare Economics Director, Optum					

Notes: USC, University of Southern California; *publications/presentations during mentored years

Doctoral Students: Lead Mentor and Committee Chair

Name	Program	University	Mentoring Year(s)	Mentoring Role	Co-Authored Publications*	Co-Authored Presentations*
Min Jin Song	PhD (OS)	USC	2025–	Lead Mentor, Chair	-	3
P. Zama Dlamini	PhD (OS)	USC	2023–	Co-Lead Mentor	-	3
Madeline R. Parga	PhD (OS)	USC	2022–	Lead Mentor, Chair	2	17
Award:	Kenneth R. Gottesfeld Award, Outstanding Publication, <i>Journal of Diagnostic Medical Sonography</i> , 2024					
Yiyang Fang	PhD (OS)	USC	2021–2025	Lead Mentor, Chair	7	22
Dissertation:	Technological innovation in construction: A mixed-methods study using occupational adaptation to understand changes in work performance and worker well-being					
Grant:	Dissertation Research Grant, Society for the Study of Occupation: USA, 2024–2026, \$1,000					
Positions:	2026–Current: Postdoctoral Scholar, University of Traditional Chinese Medicine, Shanghai, China					
Katherine J. Loomis	PhD (OS)	USC	2020–2025	Lead Mentor, Chair	3	13
Dissertation:	Capturing the multidimensional process of hand therapy: Exploring the landscape of research and clinical documentation to build foundational knowledge for practice-based inquiry					
Awards:	Best Paper Award, American Society of Hand Therapists, 2024 First Time Researcher Award, American Society of Hand Therapists, 2022					
Positions:	2025–Current: Postdoctoral Scholar, University of Southern California, Los Angeles, CA					
Yoko E. Fukumura	PhD (OS)	USC	2019–2024	Lead Mentor, Chair	7	20
Dissertation:	Exploring the intersection of occupational engagement and well-being in student musicians					
Positions:	2025–Current: Postdoctoral Scholar, University of Southern California, Los Angeles, CA					
Buwen Yao	PhD (OS)	USC	2018–2022	Lead Mentor, Chair	6	15
Dissertation:	Effects of occupation on physiologic biomarkers: Doppler sonographic evaluation of intraneural blood flow					
Grant:	Research Grant, Society for Diagnostic Medical Sonography Foundation, 2021–2022, \$4,000					
Awards:	Kenneth R. Gottesfeld Award, Outstanding Publication, <i>Journal of Diagnostic Medical Sonography</i> , 2024 Elizabeth June Yerxa Award, Chan Division of Occupational Science and Occupational Therapy; 2022 Finalist, New Investigator Award, American Institute of Ultrasound in Medicine (AIUM), 2021					
Positions:	2023–2024: Medical Research Resident, Third Hospital Peking University, Beijing, China					
Sandy C. Takata	PhD (OS)	USC	2016–2023	Lead Mentor, Chair	7	27
Dissertation:	Precision care to optimize safe return to function following surgical flexor tendon repair					
Grants:	F31 Predoctoral Fellowship, NIH/NIAMS, 2019–2021, \$90,032 Grab the Evidence Grant, American Hand Therapy Foundation, 2019–2020, \$6,350 Research Grant, Society for Diagnostic Medical Sonography Foundation, 2019–2020, \$5,000					
Awards:	Kenneth R. Gottesfeld Award, Outstanding Publication, <i>Journal of Diagnostic Medical Sonography</i> , 2025 First Time Author Award, Journal of Hand Therapy, 2019 Finalist, New Investigator Award, AIUM, 2019 Student Scholar Award, OT Summit of Scholars, AOTA/AOTF, 2017					
Positions:	2023–2024: Postdoctoral Scholar, Cedars-Sinai Medical Center, Los Angeles, CA 2025–Current: Occupational Therapist, Casa Colina, Pomona, CA					
Mark E. Hardison	PhD (OS)	USC	2014–2019	Lead Mentor, Chair	8	20
Dissertation:	Exploring the effects of mindfulness on psychosocial factors for patients receiving hand therapy					
Grant:	Research Grant, California Foundation for Occupational Therapy, 2018–2019, \$3,000					
Awards:	Elizabeth June Yerxa Award, Chan Division of Occupational Science & Occupational Therapy; 2019 First Place Poster Presentation, Ostrow School of Dentistry Research Day, 2015					
Positions:	2019–2024: Assistant Professor (Tenure-Track), University of New Mexico, Albuquerque, NM 2024–Current: Assistant Professor, Hawai'i Pacific University, Las Vegas, NV					

Notes: OS, Occupational Science; USC, University of Southern California; *publications/presentations during mentored years

Doctoral Students: Advisory and Dissertation Committee Member

Name	Program	University	Mentoring Year(s)	Mentoring Role	Co-Authored Publications*	Co-Authored Presentations*
Holly Carrington	PhD (OS)	USC	2026–	Advisory Committee	-	-
Antonin Brun	PhD (CEE)	USC	2026–	Advisory Committee	1	1
Zihao Wang	PhD (CEE)	USC	2025–	Dissertation Committee	4	3
Mirmahdi Seyedrezaei	PhD (CEE)	USC	2025–	Dissertation Committee	10	2

Stuti Chakraborty	PhD (OS)	USC	2024–2025	Advisory Committee	-	-
Yujia Mo	PhD (OS)	USC	2024	Advisory Committee	-	-
Patrick Rodrigues	PhD (CEE)	USC	2023–2025	Dissertation Committee	7	2
Dissertation: A user-centered framework for sensory-enhanced teleoperation interfaces for construction robots						
Loree Pham	PhD (OS)	USC	2022–2025	Dissertation Committee	-	-
Dissertation: Grounded living: Exploring the physical, psychosocial, and sociocultural dimensions of floor sitting						
Gillian Fennell	PhD (Gero)	USC	2021–2024	Dissertation Committee	-	-
Mohamad Awada	PhD (CEE)	USC	2021–2024	Dissertation Committee	12	2
Dissertation: Towards health-conscious spaces: Building for human well-being and performance						
Grant: Research Grant, Southern California NIOSH Education and Research Center, 2021–2022, \$6,585						
Linah AlShaalan	PhD (OS)	USC	2020–2021	Advisory Committee	-	-
Raymond Hernandez	PhD (OS)	USC	2019–2021	Dissertation Committee	4	-
Dissertation: Whole day workload, activity engagement, and psychological state						
Yijing Xiao	PhD (CEE)	USC	2019–2021	Advisory Committee	4	5
Ashrant Aryal	PhD (CEE)	USC	2019–2020	Dissertation Committee	5	4
Dissertation: Intelligent agents for personalizing indoor environment and improving occupant comfort in offices						
Kaori Ito	PhD (OS)	USC	2018–2021	Dissertation Committee	-	-
Dissertation: Neural and psychosocial correlates of age differences in goal-directed and habitual decision-making						
Donnamarie Krause	PhD (RS)	LLU	2017–2019	Dissertation Committee	3	2
Dissertation: Effects on occupational performance of dorsal application of Kinesiotape for carpal tunnel syndrome						
Kristine Carandang	PhD (OS)	USC	2017–2018	Dissertation Committee	-	-
Dissertation: Activity engagement of young adults with autoimmune arthritis: A multi-method approach						

Notes: CEE, Civil and Environmental Engineering; Gero, Gerontology; LLU, Loma Linda University; OS, Occupational Science; RS, Rehabilitation Science; USC, University of Southern California; *publications/presentations during mentored years

Occupational Therapy Doctoral and Master's Degree Students: Thesis, Capstone, or Independent Research Mentor

Name	Program	University	Mentoring Year(s)	Mentoring Role	Co-Authored Publications*	Co-Authored Presentations*
Rachel Bae	eOTD	USC	2024–2025	Level II Fieldwork-Cap	-	-
Tanmay Khese	OTD	USC	2023–2024	Lead Mentor, Chair	1	2
Capstone: Exploring sonographers' health, well-being, and safety: A systems perspective						
Award: First Place Poster Presentation, Ostrow School of Dentistry Research Day, 2024						
Trisha Willie	OTD	USC	2023–2024	Independent Study	1	-
Michelle Plevack	OTD	USC	2022–2023	Lead Mentor, Chair	-	1
Capstone: Optimizing the biopsychosocial approach: Research, pelvic health, and integrated wellness						
Qian Xu	OTD	USC	2022–2023	Lead Mentor, Chair	-	-
Capstone: Multi-level ergonomics analysis and design for improved health of dental hygienists						
Hongying Zhong	OTD	USC	2022–2023	Lead Mentor, Chair	-	-
Capstone: Standardizing OT practice in upper extremity rehabilitation: Development and transformation of UE treatment toolbox for occupational therapy in China						
Samantha Yo	OTD	USC	2021–2022	Lead Mentor, Chair	1	1
Capstone: The examination of novel approaches for musculoskeletal care						
Luming Yang	OTD	USC	2021–2022	Co-Mentor	1	1
Capstone: Becoming an occupational therapy educator: Merging knowledge in pedagogy, research, and practice						
Chen Gong	OTD	USC	2021–2022	Co-Mentor	-	-
Capstone: Research and evidence-based practice in musculoskeletal disorders of the upper extremity: A clinical pathway of OT intervention for scleroderma						
Mulubhran Woldmariam	MS (RS)	OSU	2021–2022	Thesis Committee	-	-
Thesis: Testing the validity and reliability of the Expain® biofeedback device: The acquisition capabilities and risk reduction for sonographers wearing an ergometer.						
Yiyang Fang	OTD	USC	2020–2021	Lead Mentor, Chair	2	3
Capstone: Building a foundation of becoming a career scientist in the realm of musculoskeletal injury prevention						
Award: First Place Poster Presentation, Ostrow School of Dentistry Research Day, 2021						
Jody Liu	OTD	USC	2019–2020	Lead Mentor, Chair	1	2
Capstone: Building evidence for OT in work and industry: Exploring assessments and identifying practitioner needs						

John Williams	MA (OT)	USC	2020	Level II Fieldwork	-	-
Joseph Schott	MA (OT)	USC	2020	Level II Fieldwork	1	1
Annie Ting	OTD	USC	2017–2018	Residency Advisor	-	-
Capstone: Musicians and hypermobility: enhancing care with hand rehabilitation						
Daniel Luo	MA (OT)	USC	2017	Independent Study	-	-
Cassie Tseng	MA (OT)	USC	2017	Independent Study	-	-
Nikki Colclazier	MS (DH)	USC	2016	Capstone Advisor	1	5
Capstone: Developing a video analysis method to assess dental hygiene students' risk for musculoskeletal disorders						
Sarah Chang	MA (OT)	USC	2016	Independent Study	-	-
Katharine Saley	MA (OT)	USC	2016	Independent Study	-	-
Heather Van Buren	MA (OT)	USC	2016	Independent Study	-	-
Emily Wade	OTD	USC	2015–2016	Residency Advisor	1	2
Capstone: Evidence-based hand therapy in literature and practice						
Delila Newman	MA (OT)	USC	2014	Independent Study	-	-
Monique Wolkoff	OTD	USC	2012–2013	Independent Study	1	1
Capstone: Implementation and utility of sonographic imaging in hand therapy practice						
Julieann Tsai	MA (OT)	USC	2012–2013	Independent Study	1	1

Notes: DH, dental hygiene; eOTD, entry-level occupational therapy doctorate; OT, occupational therapy; OTD, post-professional occupational therapy doctorate; OSU, Ohio State University; RS, Rehabilitation Sciences; USC, University of Southern California;

*publications/presentations resulting from work conducted during mentored years

Undergraduate Students: Thesis or Research Project Mentor

Name	Program	University	Mentoring Year(s)	Mentoring Role	Co-Authored Publications*	Co-Authored Presentations*
Melody Cheng	BS	USC	2025–	URAP Researcher	-	1
Grant: Provost's Research Fellowship, University of Southern California (\$3,000)						
Ruby Yoon	BS	USC	2025–2026	URAP Researcher	-	1
Ava Paez	BS	USC	2024–2025	URAP Researcher	-	-
Kaylin Tang	BS	USC	2024–2025	URAP Researcher	-	-
Arianna Lopez	BS	USC	2020–2022	URAP Researcher	-	1
Leiyenne Roldan	BS	USC	2020–2022	URAP Researcher	-	1
Trisha Willie	BS	USC	2019–2022	URAP Researcher	1	1
Award: Distinguished Contributions to Research and Scientific Writing, Chan Division Commencement Award						
Grant: Provost's Research Fellowship, University of Southern California (\$5,000)						
Yoojin Chung	BS	USC	2019–2021	URAP Researcher	-	1
Kayla Gan	BS	USC	2018–2019	URAP Researcher	1	1
Annie Lee	BS	USC	2018–2019	URAP Researcher	1	1
Yiyang (Sunny) Fang	BS	USC	2017–2019	URAP Researcher	1	3
Award: Distinguished Contributions to Research and Scientific Writing, Chan Division Commencement Award						
Samantha Randolph	BS	USC	2017–2021	URAP Researcher	1	2
Grant: Provost's Research Fellowship, University of Southern California (\$1,000)						
Rachel Eckerling	BS	USC	2017–2018	URAP Researcher	-	2
Ariana Cristino	BS	USC	2016–2017	Independent Study	-	1
Award: Discovery Scholar, University of Southern California						
Heng (Hannah) Chang	BS	USC	2014	Independent Study	1	-
Christina Fahy	BS	OSU	2011–2012	Thesis Committee	1	-
Thesis: Utilizing multi-sonographic measures in the detection of clinically diagnosed carpal tunnel syndrome compared to nerve conduction studies: A pilot study.						
Lauren Selhorst	BS	OSU	2010–2011	Thesis Committee	1	1
Thesis: Direct measures of physical factors contributing to work-related musculoskeletal pain among diagnostic medical sonographers: A pilot study.						
Kathryn Zale	BS	OSU	2009–2010	Thesis Committee	-	2
Thesis: Utilizing Doppler ultrasound to detect arteriole blood flow within the median nerve sheath.						

Notes: OSU, Ohio State University; USC, University of Southern California; URAP, Undergraduate Research Associates Program;

*publications/presentations resulting from work conducted during mentored years

Research Student Workers, Assistants, and Volunteers

20 occupational therapy entry-level doctoral, master's, and bachelor's students have engaged as research assistants, student workers, and volunteers, contributing to research activities since 2012; co-authored publications and presentations are indicated with * throughout this document: **Gabriel Messenger, Phillip Lin, Naoya (Nick) Ogura, Justina Wong, Tina Sehremelis** (1 publication), **Tiffany Tung, Hsien-Chih Chiu, Joyce Ho, Nina Wakayama, Julianna Dole** (1 publication, 2 presentations), **Alyssa Matlosz, Melanie Kijel** (1 publication, 4 presentations), **Jiwon Shin** (1 publication, 1 presentation), **Agatha Handojo, Evonne Lin, Chelsea Okundolor** (1 presentation), **Kathryn Gonzalez, Ian Ranches**

CURRICULUM and TEACHING

Curriculum Development, Course Design, and Other Academic Advancement

1. Holistic Admissions Process

University of Southern California — Major Admissions Process Revision — Fall 2019-2020

Co-led a major revision of the admissions process for the Chan PhD in Occupational Science program: identified and developed criteria for a holistic review of applications, developed a rubric to fairly examine scholarly writing of applicants, created a protocol for a rigorous review process incorporating the standardized review criteria across multiple reviewers, collected data to evaluate protocol implementation, and identified and implemented final revisions to improve the process.

2. PhD in Occupational Science

University of Southern California — Major Curriculum Revision — Spring 2016

Chaired the committee for the revision of the PhD curriculum, which included: revision of degree requirements, development of an advanced standing program track, conceptualization and preparation of three new courses, revision of the program description for the university catalogue, and completion of all supporting rationale documents required for university curriculum review. Also, current courses and programmatic requirements were reviewed and updated to ensure a well-rounded full curriculum.

3. Grant Writing for Occupational Science (OT 661)

University of Southern California — New Course Development — Spring 2016

8-week intensive, 2-unit workshop as a capstone for the USC PhD program, providing students with practical, applied training in developing federal grant applications. Developed the course syllabus, description, and grading requirements as part of a full PhD curriculum revision. Graduate/PhD.

Teaching

1. The Nature of Occupation (OT 641)

University of Southern California — Fall 2015, Fall 2017, Fall 2019, Fall 2025 — Course Director (Faculty)

Seminar course providing a theoretical foundation for the study of occupation using cross-disciplinary perspectives to discuss domains of human engagement in living and learning in everyday life. Graduate/PhD.

2. Foundations of Occupational Science (OT 640)

University of Southern California — Fall 2020 — Course Director (Faculty)

Seminar course providing historical perspective on the foundation of the discipline of occupational science and the development of the core constructs over the past, present, and future of the discipline. Graduate/PhD

3. Research Immersion and Practicum (OT 660)

University of Southern California — Fall/Spring Annually, 2017–2023— Course Director (Faculty)

Oversight for immersion experiences within research labs and monthly workshops on cross-cutting, practical aspects of research such as research ethics, academic writing, effective research collaboration, and grant/research management. Graduate/PhD.

4. Advanced Seminar in Occupational Science (OT 545)

University of Southern California — Spring 2017 — Course Director (Faculty)

Seminar course reviewing the historical foundations and key areas of scholarship for the discipline of occupational science, with discussion of the relationship of occupational science to occupational therapy practice. Graduate/Professional.

5. **Directed Research Independent Study (OT 490/590/790)**
University of Southern California — 20 individual students from 2013–current — Course Director (Faculty)
 Directed and mentored independent study in aspects of research related to advancing practice or science through examining literature, methods, analysis, and data interpretation. Undergraduate/Graduate/PhD
6. **Functional Anatomy for Occupational Therapists (OT 260)**
University of Southern California — Fall/Spring Annually, 2011-2016 (10 Times) — Course Director (Faculty)
 An anatomical survey of the human musculoskeletal, nervous, cardiovascular, respiratory, digestive, and urinary systems with functional relevance to the practice of occupational therapy, including lecture and human cadaver lab sessions. Undergraduate/Pre-Professional.
7. **Introduction to Evidence and Careers in Radiologic Sciences and Therapy (RST 200)**
The Ohio State University — Autumn 2009, Spring and Autumn 2010 — Instructor
 Undergraduate course using brief reviews of timely issues and innovations affecting practice in allied health and radiologic sciences to implement the process of synthesizing evidence and developing scientific writing skills. Undergraduate.
8. **Occupational Therapy in Physical Function I (OT 743)**
The Ohio State University — Spring 2008 — Graduate Teaching Associate
 Graduate course examining the evaluation, remediation principles, and disability prevention used in occupational therapy practice with a focus on musculoskeletal diagnoses. Developed course syllabus, provided instruction for 2 of 3 units, developed student evaluation materials, assisted with lab sessions, and graded practicum. Graduate/Professional.
9. **Occupational Therapy for Neurological Conditions (OT 747)**
The Ohio State University — Winter 2008 — Graduate Teaching Associate
 Graduate course examining the performance abilities in persons with central nervous dysfunction. Course also includes principles and strategies for evaluation and treatment. Developed and scored case study assignment, provided instructional lectures. Graduate/Professional.
10. **Occupational Therapy in Physical Function II (OT 744)**
The Ohio State University — Autumn 2007 — Graduate Teaching Associate
 Graduate course examining the application of assessment techniques and intervention strategies for clients with physical dysfunction. Created evaluations, provided instructional lectures, and assisted with lab sessions. Graduate/Professional.

Guest Lectures and Other Educational Presentations

1. **“Identifying Funding Opportunities and Targeting Your Grant Writing”**
University of Southern California, Chan Division of OSOT — Annually 2019–current
2. **“Workers’ Compensation”**
University of Southern California, Chan Division of OSOT — March 30, 2020
3. **“Exploring Functional Hand Anatomy Using Sonographic Imaging”**
University of Southern California, Chan Division of OSOT — Spring Semester (annually) 2016–2018
4. **“Work: An Occupational Therapy Perspective”**
University of Southern California, Chan Division of OSOT — Spring and Fall Semesters (semi-annually) 2012–2018
5. **“Work-Related Musculoskeletal Disorders and Ergonomics in the Sonography Lab”**
The Ohio State University, Radiologic Sciences — Oct 20, 2009; Oct 19, 2010
6. **“Anatomy of the Upper Arm: A Primer for Vascular Sonographers”**
The Ohio State University, Radiologic Sciences — Oct 22, 2008
7. **“An Introduction to Job Analysis”**
The Ohio State University, Occupational Therapy — Mar 6, 2007; Feb 28, 2008; Mar 2, 2009
8. **“Work: An Occupational Therapy Perspective”**
The Ohio State University, Occupational Therapy — Nov 16, 2005; Nov 28, 2006; Dec 1, 2008; Nov 30, 2009

9. “Low Back Injury: Implication and Intervention”

The Ohio State University, Occupational Therapy — May 12, 2003; Oct 26, 2004

10. “The Industrial Occupational Therapist” / “Industrial Rehabilitation: Evaluation and Treatment”

The Ohio State University, Occupational Therapy — May 2, 2003; Feb 4, 2004; Mar 12, 2005

CLINICAL EXPERIENCE

WorkLife, Fairfield Medical Center, Lancaster, OH**Program Coordinator/Occupational Therapist (2003 – 2011)**

Coordinated referral, intake, evaluation, treatment, and discharge of clients in a CARF-accredited occupational rehabilitation program; provided industrial rehabilitation services: functional capacity evaluations, transitional work, ergonomic assessments, and job site analyses. Assessed, planned, and applied acute and outpatient OT for adults with neurological, orthopedic, and mental health needs.

LEADERSHIP and SERVICE

Professional Service Activities**Board, Trustee, and Elected Positions****American Occupational Therapy Foundation**

Trustee, Board of Trustees (2025–current)

Ohio Association of Rehabilitation Facilities

Member, Board of Directors (2010–2011)

Chair, Industrial Division (2006–2008)

Student Occupational Therapy Association, The Ohio State University

President (2001–2002)

Association Committees and Other Roles**American Institute for Ultrasound in Medicine**

Panelist, Work-Related Musculoskeletal Disorder Prevention Task Force, Clinical Standards Committee (2020–2022)

American College of Occupational and Environmental Medicine

Panelist, Practice-Based Shoulder Disorder Guidelines (2020–2023)

Panelist, Practice-Based Hand, Wrist, and Forearm Disorders Guidelines (2014–2016)

American Occupational Therapy Association

Co-Chair, Specialty Conference: Adult Rehabilitation (2017–2018)

Peer-Reviewer, Occupational Therapy Practice Guidelines for Adults with Musculoskeletal Conditions (2017)

Member, Evidence-Based Practice Review Committee, Upper Extremity Musculoskeletal Disorders (2014–2016)

Reviewer, Annual Conference Research Abstracts (2012–current)

Member, Work and Industry SIS Nomination Committee (2010)

American Occupational Therapy Foundation

Member, Scientific Advisory Council (2025–current)

American Registry for Diagnostic Medical Sonography/Society of Diagnostic Medical Sonography (Sonography Alliance)

Methodologist, Metrics Committee, Grand Challenge to Reduce Work-Related Injuries in Sonography (2020–2022)

Ohio Association of Rehabilitation Facilities

Outcomes Coordinator (2005–2011)

Occupational Therapy Association of California

Member, Centennial Vision Float Ad-Hoc Committee (2013–2016)

Volunteer, Conference Committee (2015)

Ohio Bureau of Workers' Compensation

Ohio Legislature: Labor, Management, Government Council - Nominated for Rehabilitation Provider Seat (2009)
Clinician Panelist, S.M.A.R.T. Provider Credentials and Outcomes Workgroup (June 2008–August 2008)
Member, Vocational Rehabilitation Redesign/LMG Council (September 2007–March 2008)
Member, Vocational Rehabilitation/MCO Outcome Measures (February 2005–July 2005)

Association Membership

American Occupational Therapy Association (2002–current)
American Institute of Ultrasound in Medicine (2011–current)
American Society of Hand Therapists (2012–current)
Association of Rheumatology Professionals (2018–2020)
Human Factors and Ergonomics Society (2024–current)
Ohio Association of Rehabilitation Facilities (2003–2011)
Ohio Occupational Therapy Association (2001–2011)
Occupational Therapy Association of California (2012–current)
Society of Diagnostic Medical Sonography (2009–current)
Society for the Study of Occupation: USA (2017, 2019–current)
Society for Total Worker Health (2025–current)
Student Occupational Therapy Association, The Ohio State University (2000–2002)

Other Professional Activities

Musculoskeletal Occupational Therapy Research Network (MOTR-Net): <https://sites.google.com/view/motr-net>
Member (2025–current)
Founder and Director (2018–2025)

Peer-Review Service Activities**Grant Review Panels**

American Hand Therapy Foundation (AHTF)
Bell Grab the Evidence Grant Review Panel (2016)

Centers for Disease Control and Prevention (CDC)
National Institute for Occupational Safety and Health (2024)

National Science Foundation (NSF)
Smart and Connected Health Program (2026)
Information and Intelligent Systems Division (2023)

Patient-Centered Outcomes Research Institute (PCORI)
Stakeholder Reviewer: Assessment of Diagnosis, Prevention, and Treatment Options Review Panel
2022: Cycle 3; 2019: Cycle 2; 2018: Cycle 1, Cycle 2, Cycle 3; 2017: Cycle 1; 2016: Cycle 1; 2015: Cycle 1, Cycle 3; 2014: Fall
Stakeholder Reviewer: Preventing Osteoporotic Fractures Review Panel (2021 Cycle 3)
Scientist Reviewer: Improving Healthcare Systems Review Panel (2021 Cycle 1)

Southern California Clinical and Translational Science Institute (SC-CTSI)
Clinical Pilot Program (2016, 2017, 2018)
Keck School of Medicine Dean's Pilot Program (2016)

University of Wisconsin-Milwaukee
Discovery and Innovation Grant Program (2024)

Weill Cornell Medicine Clinical and Translational Science Institute (CTSC)
Translational Research Funding Program (2022)

Editorial Activities**American Journal of Occupational Therapy***Editorial Board (2014–2018)***Journal of Diagnostic Medical Sonography***Associate Editor, Original Research and Musculoskeletal Applications (2017–2025)**Editorial Board (2016–current)***WORK: A Journal of Prevention, Assessment, and Rehabilitation***Editorial Board (2009–2017)***WorkLife Connection (Clinical Newsletter)***Editor (2005–2007)***Ad-Hoc Peer-Review****American Journal of Occupational Therapy** (2014–current)**Archives of Physical Medicine and Rehabilitation** (2015–current)**Arthritis Care & Research** (2013, 2020)**BMJ Open** (2015, 2018)**Ergonomics** (2018)**European Radiology** (2015–2018, 2022–current)**Human Factors** (2016)**Journal of Diagnostic Medical Sonography** (2009–current)**Journal of Hand Therapy** (2019–current)**Journal of Occupational Science** (2017)**Journal of Plastic Surgery and Hand Surgery** (2015)**Journal of Ultrasound in Medicine** (2012–2017)**Muscle & Nerve** (2017)**Occupational Therapy Journal of Research** (2017–current)**PLoS One** (2016, 2018)**Scandinavian Journal of Occupational Therapy** (2017)**Ultrasound in Medicine and Biology** (2011–2016, 2020–current)**WORK: A Journal of Prevention, Assessment, and Rehabilitation** (2007–2017)**University and Division Service Activities****University of Southern California***Co-Chair, Data and Evaluation Subcommittee, Healthy Campus Initiative, USC WorkWell Center (2024–2025)**Member, Data and Evaluation Subcommittee, Healthy Campus Initiative, USC WorkWell Center (2022–2023)**Charter Member, Advisory Committee, Healthy Campus Initiative, USC WorkWell Center (2022–current)**Member, Graduate Deans Council, USC Graduate School (2017–2023)**Member, Advisory Board, Edmondson Faculty Center (2014–2015)***Ostrow School of Dentistry***Member, Associate Dean Search Committee (2015–2016)**Judge, Research Day (2013, 2014, 2016, 2021, 2022, 2024)***Chan Division of Occupational Science & Occupational Therapy***Member, AI Workgroup (2026)**Member, Chan Awards Selection Committee (2026)**Co-Lead, Innovative Approaches Strategic Plan Implementation Team (2024–2025)**Member, Faculty Merit Review Committee (2022–2024)**Chair, Post-Doctoral Trainee Search Committee (2022–2023)**Chair, Tenure Review Committee (2020, 2023)**Member, Strategic Plan Implementation Team, Goal 1.1 (2019–2023)**Member, Assistant Professor Search Committee (2019–2020)**Member, Strategic Planning Steering Committee (2018)*

Chair, PhD Curriculum Revision Committee (2016)
Chair, ReHaB Research Core (2015–2017)
Member, Tenure/Tenure-Track (T/TT) Faculty Merit Review Committee (2012–2016)
Member, Renovations Committee (2012–2014)

Community Service Activities

Columbus Softball Association

Secretary (2007–2011)
Delegate, North American Gay Amateur Athletic Alliance (NAGAAA) (2007–2011)
Conference Chief (2006)
Team Manager (2004–2008)

NAGAAA 2010 Softball World Series

Secretary (2008–2010)
Member, Bid Committee (2008)

APPENDIX A: PEER-REVIEWED, PUBLISHED ABSTRACTS

*asterisk indicates direct mentee and underline indicates senior author(s), when applicable

1. **Roll SC**, Crowe B, Youell C, Wilcox J, Aldrich RM. Partnering to identify priorities for practice, policy, and research for return-to-work with Long COVID. *Occupational Therapy Journal of Research*, 2026; 46(2):341-342. doi: [10.1177/15394492251339723](https://doi.org/10.1177/15394492251339723)
2. Loomis KJ*, Khese T, Lin E, **Roll SC**. Paving the way for large-scale hand therapy research: A researcher network analysis. *Journal of Hand Therapy*, 2025; 38:691-692. doi: [10.1016/j.jht.2024.08.057](https://doi.org/10.1016/j.jht.2024.08.057)
3. Loomis KJ*, **Roll SC**, Hardison ME. Therapist-patient relationships in outpatient upper extremity rehabilitation: Facilitating engagement and adherence. *American Journal of Occupational Therapy*. 2022; 76(1_suppl):S27-S27. doi: [10.5014/ajot.2022.76S1-PO27](https://doi.org/10.5014/ajot.2022.76S1-PO27)
4. Yao B*, Takata SC*, **Roll SC**. OT student health and extracurricular activity participation: A need to support well-being in OT education. *American Journal of Occupational Therapy*. 2022; 76(1_suppl):S56-S56. doi: [10.5014/ajot.2022.76S1-PO56](https://doi.org/10.5014/ajot.2022.76S1-PO56)
5. Dole JE*, Baker N, **Roll SC**. Carpal tunnel treatment options: Developing consolidated guidelines for best practice—A meta-synthesis. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S378-S378. doi: [10.5014/ajot.2021.75S2-RP275](https://doi.org/10.5014/ajot.2021.75S2-RP275)
6. Fang Y*, **Roll SC**, Baker N, Dole JE*. Quality of patient education handouts for carpal tunnel syndrome available on the internet. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S368-S368. doi: [10.5014/ajot.2021.75S2-RP265](https://doi.org/10.5014/ajot.2021.75S2-RP265)
7. Fukumura YE*, Gray JM, Lucas G, Becerik-Gerber B, **Roll SC**. Office worker perspective on an artificial intelligence workstation: a qualitative study. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S272-S272. doi: [10.5014/ajot.2021.75S2-RP154](https://doi.org/10.5014/ajot.2021.75S2-RP154)
8. Randolph S*, Liu J*, **Roll SC**, Dylla J. Validation of an ergonomic assessment tool for dental hygienists. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S207-S207. doi: [10.5014/ajot.2021.75S2-RP43](https://doi.org/10.5014/ajot.2021.75S2-RP43)
9. Yao B*, **Roll SC**. Effect of functional hand use on compression and displacement of the median nerve. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S314-S314. doi: [10.5014/ajot.2021.75S2-RP196](https://doi.org/10.5014/ajot.2021.75S2-RP196)
10. Yao B*, Takata S*, **Roll SC**. Relationship between extracurricular occupations and health in college students: A longitudinal study. *American Journal of Occupational Therapy*. 2021;75(2_suppl):S296-S296. doi: [10.5014/ajot.2021.75S2-RP178](https://doi.org/10.5014/ajot.2021.75S2-RP178)
11. **Roll SC**, Kono N, Forrest JL, Mack WJ. Differential effects of work-related task training on upper-extremity health in OT and dental hygiene students. *American Journal of Occupational Therapy*, 2019; 73(1_suppl):S128-S128. doi: [10.5014/ajot.2019.73S1-PO4004](https://doi.org/10.5014/ajot.2019.73S1-PO4004)
12. **Roll SC**, Cristino A*, Mitchell J. Characterizing changes in the median nerve during hand grip using dynamic sonographic imaging. *Arthritis and Rheumatology*, 2018; 70(S9):1335-1336. doi: [10.1002/art.40700](https://doi.org/10.1002/art.40700)
13. Takata S*, **Roll SC**, Wade E*. Linking research to practice in hand therapy: A mapping review. *Journal of Hand Therapy*, 2018; 31(1):144-5. doi: [10.1016/j.jht.2017.11.006](https://doi.org/10.1016/j.jht.2017.11.006)
14. **Roll SC**, Hardison ME*, Colclazier N*. Risk assessment for musculoskeletal strain among dental hygienists: Validity and reliability of a video observation technique. *American Journal of Occupational Therapy*, 2018; 72(1_suppl):S305-S305. doi: [10.5014/ajot.2018.72S1-RP202B](https://doi.org/10.5014/ajot.2018.72S1-RP202B)
15. Takata SC*, **Roll SC**. Patient experiences of participating in mind–body interventions in an outpatient rehabilitation setting. *American Journal of Occupational Therapy*, 2018; 72(1_suppl):S310-S310. doi: [10.5014/ajot.2018.72S1-RP203C](https://doi.org/10.5014/ajot.2018.72S1-RP203C)
16. Hardison ME*, Black DS, **Roll SC**. Effects of mind–body interventions on stress, anxiety, and pain in hand therapy patients. *American Journal of Occupational Therapy*, 2018; 72(1_suppl):S322-S322. doi: [10.5014/ajot.2018.72S1-RP302C](https://doi.org/10.5014/ajot.2018.72S1-RP302C)
17. Takata SC*, **Roll SC**, Wade E*. Linking research to practice for upper extremity musculoskeletal disorders: Interventions, outcomes, and diagnoses examined over 10 years. *American Journal of Occupational Therapy*, 2018; 72(1_suppl):S323-S323. doi: [10.5014/ajot.2018.72S1-RP302D](https://doi.org/10.5014/ajot.2018.72S1-RP302D)

18. Hardison ME*, **Roll SC**; Mindfulness for physical rehabilitation in occupational therapy: A scoping review. *American Journal of Occupational Therapy*, 2016; 70(1_suppl):S108-S108. doi: [10.5014/ajot.2016.70S1-PO4041](https://doi.org/10.5014/ajot.2016.70S1-PO4041)
19. **Roll S**, Gray JM, Frank G, Wolkoff M*. Therapist perceptions of the utility of sonographic imaging in the rehabilitation of musculoskeletal disorders. *American Journal of Occupational Therapy*, 2015; 69(1_suppl):S48-S48. doi: [10.5014/ajot.2015.69S1-PO2093](https://doi.org/10.5014/ajot.2015.69S1-PO2093)
20. **Roll SC**, Rana M*, Sigward S, Yani M, Kirages D, Kutch J. Cadaveric validation and in-vivo measurement reliability of a novel linear-array transperineal sonographic evaluation of male pelvic floor structures. *Ultrasound in Medicine and Biology*, 2015; 41(4):S103. doi: [10.1016/j.ultrasmedbio.2014.12.426](https://doi.org/10.1016/j.ultrasmedbio.2014.12.426)
21. **Roll SC**, Gray JM, Frank G. Competency development and complexities of clinical integration of musculoskeletal sonography by non-physician rehabilitation providers. *Ultrasound in Medicine and Biology*, 2015; 41(4):S20. doi: [10.1016/j.ultrasmedbio.2014.12.124](https://doi.org/10.1016/j.ultrasmedbio.2014.12.124)
22. **Roll SC**, **Evans KD**, Sommerich CM. Longitudinal analysis of grey scale imaging and electromyography in an animal model of carpal tunnel syndrome. *Journal of Ultrasound in Medicine*, 2013; 32:S49.
23. **Roll SC**, **Evans KD**, Freimer ML, Case-Smith J, Sommerich CM. Relationship of median nerve ultrasonographic measures to anthropometric and demographic factors for diagnosis of carpal tunnel syndrome. *Ultrasound in Medicine and Biology*, 2011; 37:S6-7. doi: [10.1016/j.ultrasmedbio.2011.05.055](https://doi.org/10.1016/j.ultrasmedbio.2011.05.055)
24. **Evans KD**, **Roll SC**, Volz KR, Sommerich CM. Spectral Doppler measurement of perineural flow within the median nerve compared to nerve conduction studies. *Ultrasound in Medicine and Biology*, 2011; 37:S6. doi: [10.1016/j.ultrasmedbio.2011.05.052](https://doi.org/10.1016/j.ultrasmedbio.2011.05.052)
25. **Evans KD**, **Roll SC**, Volz KR, Sommerich CM. Ultrasound contrast enhanced interrogation of the median nerve to document peripheral vascular flow in an animal model. *Ultrasound in Medicine and Biology*, 2011; 37:S6. doi: [10.1016/j.ultrasmedbio.2011.05.054](https://doi.org/10.1016/j.ultrasmedbio.2011.05.054)

APPENDIX B: PEER-REVIEWED POSTER PRESENTATIONS

*asterisk indicates direct mentee

1. Song MJ*, Fang Y, Lucas GM, Becerik-Gerber B, Soibelman L, **Roll SC**. Construction workers' experiences of sensory components of teleoperation workstations: Exploring self-efficacy, trust, and workload. Poster presentation at: 14th Annual Occupational Therapy Summit of Scholars, 2026; St. Louis, MO.
2. Parga MR*, Okundolor C, Becerik-Gerber B, Lucas GM, Narayanan S, **Roll SC**. A qualitative exploration of office workers' stress perception and management. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2026; Los Angeles, CA.
3. Song MJ*, Fang Y, Lucas GM, Becerik-Gerber B, Soibelman L, **Roll SC**. Construction workers' experiences of sensory components of teleoperation workstations. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2026; Los Angeles, CA.
4. **Roll SC**, Crowe B, Youell C, Wilcox J, Aldrich RM. Patient and provider perspectives on facilitating return-to-work with Long COVID. Poster presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
5. Walsh RJ*, Yelin E, **Roll SC**. Developing occupational therapy's role in addressing emerging work as a social determinant of health. Poster presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
6. Parga MR*, **Roll SC**, Angell AM. Supporting the neurodiversity movement through occupational science and occupational therapy research: An occupational perspective informed by disability studies. Poster presentation at: 19th World Federation of Occupational Therapists International Congress and Exhibition, 2026; Bangkok, Thailand.
7. Fang Y*, **Roll SC**. A path towards context-driven, human-centered technology in demolition work. Poster presentation at: 4th International Symposium to Advance Total Worker Health®, 2025; Bethesda, MD.
8. Fang Y*, Kapellusch J, Baker NA, **Roll SC**. An occupational therapy perspective on factors causing poor posture and increased strain in dental hygiene. Poster presentation at: 13th Annual Occupational Therapy Summit of Scholars, 2025; Seattle, WA.
9. Loomis KJ*, **Roll SC**. Clinical documentation practices and perspectives of occupational therapists working in hand therapy. Poster presentation at: 13th Annual Occupational Therapy Summit of Scholars, 2025; Seattle, WA.
10. Fang Y*, Baker NA, Kapellusch J, **Roll SC**. Assessing physical strain and ergonomic risk in dental hygiene training. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2025; Los Angeles, CA.
11. Loomis KJ*, **Roll SC**. Hand therapy clinical documentation practices and perspectives. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2025; Los Angeles, CA.
12. **Roll SC**, Crowe B, Youell C, Wilcox J, Aldrich RM. Partnering to identify priorities for practice, policy, and research for return-to-work with long COVID. Poster presentation at: American Occupational Therapy Foundation Engage Summit, 2024; Alexandria, VA.
13. Parga MR*, **Roll SC**, Becerik-Gerber B, Lucas GM, Narayanan S. Associations among social contexts of hybrid work and stress states: Implications for supporting worker performance. Poster presentation at: ASPIRE - International Meeting of the Human Factors and Ergonomics Society, 2024; Phoenix, AZ.
14. Dlamini Z*, Aldrich RM, Wilcox J, **Roll SC**, Nguyen G, Stewart A, Parga M, Walsh RJ*. Occupational identity shifts in individuals with long COVID. Poster presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.
15. Parga MR*, **Roll SC**, Becerik-Gerber B, Lucas GM, Narayanan S. An exploration of individual differences in office worker stress experiences across contexts of daily occupation. Poster presentation at: 22nd Annual Conference of the Society for the Study of Occupation: USA, 2024; Durham, NC.

16. Fang Y*, Kapellusch J, Baker NA, **Roll SC**. Characterizing physical strain in non-routinized clinical work through observation: An example of oral healthcare providers. Poster presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.
17. Fukumura YE*, Sommerich CM, Evans KD, **Roll SC**. Applying a sociotechnical systems approach to identify risk and support the health and well-being of the healthcare workforce. Poster presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.
18. Khese T*, Walsh RJ*, Evans KD, Sommerich CM, **Roll SC**. Impact of equipment and the physical environment on work-related injuries: Perspective and priority setting among sonographers. Poster presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.
19. Walsh RJ*, Evans KD, Sommerich CM, **Roll SC**. Individual and organizational factors associated with sonographer burnout in North America. Poster presentation at: International Symposium on Human Factors and Ergonomics in Health Care, 2024; Chicago, IL.
20. Dlamini Z*, Aldrich RM, Parga MR*, Schachter A, Walsh RJ*, Nguyen G, Wilcox J, **Roll SC**, Stewart A. Occupational identity shifts in individuals with long COVID. Poster presentation at: USC School of Dentistry Research Day, 2024; Los Angeles, CA.
21. Khese T*, Walsh RJ*, Evans KD, Sommerich CM, **Roll SC**. Sonographers' safety: Occupational therapy insights on equipment and work environment. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2024; Los Angeles, CA.
22. Parga MR*, Evans KD, Sommerich CM, Stigall-Weikle AN, **Roll SC**. Representation matters: Understanding ultrasound users' ability to inform workplace well-being. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2024; Los Angeles, CA.
23. Walsh RJ*, Evans KD, Sommerich CM, **Roll SC**. Exploring work systems factors associated with sonographer burnout. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2024; Los Angeles, CA.
24. Fukumura YE*, **Roll SC**. Considering stakeholder perspectives of well-being: A survey of student musicians. Poster presentation at: 21st Annual Research Conference of the Society for the Study of Occupation: USA, 2023; St. Louis, MO.
25. Fang Y*, Liu J*, **Roll SC**. Challenges and opportunities in work and industry occupational therapy practice. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2023; Los Angeles, CA.
26. Fukumura YE*, Evans KD, Sommerich CM, **Roll SC**. Prevalence and factors associated with work-related discomfort in sonographers. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2023; Los Angeles, CA.
27. Loomis KJ*, **Roll SC**. Relationship of external wrist ratio to sonographic carpal tunnel measurements. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2023; Los Angeles, CA.
28. Parga MR*, Lucas GM, Becerik-Gerber B, Narayanan S, **Roll SC**. An investigation into office worker perceptions of eustress versus distress. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2023; Los Angeles, CA.
29. Plevack M*, **Roll SC**. Pelvic floor rehabilitation through a biopsychosocial approach: Linking research to practice. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2023; Los Angeles, CA.
30. Fang Y*, Kapellusch J, **Roll SC**. Using job task analysis to tailor the Revised Strain Index to a specific occupation for valid and convenient ergonomic assessment. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
31. Fukumura YE*, **Roll SC**, Xiao Y, Awada M, Schott J, Becerik-Gerber B, Lucas GM. Supporting health and well-being when working from home: Lessons learned during the COVID-19 pandemic. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
32. Krause D, **Roll SC**, Javaherian-Dysinger H, Daher N. Comparative efficacy of the dorsal application of Kinesio-tape and splinting for carpal tunnel syndrome: A randomized controlled trial. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.

33. Krause D, Ryan S, Krpalek D, **Roll SC**, Javaherian-Dysinger H, Daher N. Participants' perceptions of Kinesio-tape for carpal tunnel syndrome: A qualitative study. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
34. Takata SC*, **Roll SC**. A timeline for tendon healing: Using sonography to support upper extremity rehabilitation. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
35. Yao B*, Takata SC*, **Roll SC**. Occupational therapy student health and extracurricular activity participation: Necessitating the focus of well-being within occupational therapy education. Poster presentation at: 18th World Federation of Occupational Therapists International Congress and Exhibition, 2022; Paris, France.
36. Loomis KJ*, **Roll SC**, Hardison ME. Therapist-patient relationships in outpatient upper extremity rehabilitation: Facilitating engagement and adherence. Poster presentation at: American Occupational Therapy Association Inspire Annual Conference, 2022; San Antonio, TX.
37. Yao B*, Takata SC*, **Roll SC**. OT student health and extracurricular activity: A need to support well-being in OT education. Poster presentation at: American Occupational Therapy Association Inspire Annual Conference, 2022; San Antonio, TX.
38. Yao B*, Yang L*, Gong C*, **Roll SC**. Doppler sonography evaluation of median nerve intraneural blood flow: A systematic review. Poster presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2022; San Diego, CA.
39. Fang Y*, **Roll SC**. Examining occupational competence and temporality in dental hygiene students. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
40. Fukumura YE*, Kijel MT*, Lucas GM, Becerik-Gerber B, **Roll SC**. Establishing a typology of office work behavior: A pilot study. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
41. Loomis KJ*, Shin J*, **Roll SC**. Musculoskeletal ultrasonography to support upper extremity rehabilitation: A scoping review. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
42. Yang L*, Yao B*, **Roll SC**. Doppler sonography for detecting intraneural blood flow within the median nerve. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
43. Yao B*, Takata SC*, Mack WJ, **Roll SC**. Occupational exposure and musculoskeletal complaints among dental hygiene students. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
44. Yo SH*, **Roll SC**. Ergonomic management of upper extremity arthritis: A systematic review. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2022; Los Angeles, CA.
45. **Roll SC**, Takata SC, Yao B, Kono N, Mack WJ. A role for sonographic imaging in workplace screening: identification of individual risk for and early detection of work-related musculoskeletal disorders. Poster presentation at: XXII World Congress on Safety and Health at Work, 2021; Vancouver, B.C., Canada (*presented virtually due to COVID-19*).
46. Fukumura YE*, **Roll SC**, Becerik-Gerber B, Aryal A, Xiao Y, Lucas GM. Using artificial intelligence to monitor postural risk in the workplace. Poster presentation at: XXII World Congress on Safety and Health at Work, 2021; Vancouver, B.C., Canada (*presented virtually due to COVID-19*).
47. Fukumura YE*, Kijel M, Becerik-Gerber B, Lucas GM, **Roll SC**. Developing an artificial intelligence office workstation to support health and well-being. Poster presentation at: 9th Annual Occupational Therapy Summit of Scholars, 2021; *presented virtually due to COVID-19*.
48. Yao B*, Takata S*, **Roll SC**. The effect of participation in eight types of extracurricular activities on college students' health. Poster presentation at: 9th Annual Occupational Therapy Summit of Scholars, 2021; *presented virtually due to COVID-19*.
49. Fang Y*, Dole J*, Baker NA, **Roll SC**. Evaluating the quality and content of printable patient education handouts for carpal tunnel syndrome on the internet. Poster presentation at: 9th Annual Occupational Therapy Summit of Scholars, 2021; *presented virtually due to COVID-19*.
50. Fang Y*, Tung KD, **Roll SC**. Modifying the revised strain index for dental hygiene work. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2021; Los Angeles, CA.

51. Fukumura YE*, Lucas GM, Becerik-Gerber B, **Roll SC**. Work from home during COVID-19: A negotiation of time and space. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2021; Los Angeles, CA.
52. Loomis KJ*, Hardison ME, **Roll SC**. Therapist-patient relationships in hand therapy: Power, engagement, and adherence. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2021; Los Angeles, CA.
53. Yao B*, Takata SC*, **Roll SC**. Extracurricular activity impacts dental hygiene and occupational therapy students' health. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2021; Los Angeles, CA.
54. Takata SC*, **Roll SC**. Timeline of flexor tendon repair to advance precision approach to rehabilitation. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2021; Los Angeles, CA.
55. Chung Y*, Willie T*, Fang Y*, **Roll SC**. Analyzing potential risk of musculoskeletal disorder and discomfort in dental hygiene students. Poster presentation at: USC Undergraduate SCymposium, 2021; Los Angeles, CA.
56. Lopez A*, Roldan L*, Yao B*, **Roll SC**. Using sonographic imaging to identify the risk of musculoskeletal pain in dental hygienists over time. Poster presentation at: USC Undergraduate SCymposium, 2021; Los Angeles, CA.
57. Fukumura YE*, Becerik-Gerber B, Lucas GM, **Roll SC**. Understanding office work behavior to inform an artificial intelligence workstation. Poster presentation at: 8th Annual Occupational Therapy Summit of Scholars, 2020; *accepted but canceled due to COVID-19*.
58. Yao B*, Takata SC*, **Roll SC**. The effect of eight occupational categories of extracurricular activity on college students' health. Poster presentation at: 8th Annual Occupational Therapy Summit of Scholars, 2020; *accepted, but canceled due to COVID-19*.
59. Fukumura YE*, Becerik-Gerber B, Lucas GM, **Roll SC**. Understanding office worker behavior to inform an artificial intelligence workstation. Poster presentation at: Health in Buildings Roundtable Conference, National Institutes of Health, 2020; *presented virtually due to COVID-19*.
60. Xiao Y, Fukumura YE*, Aryal A*, Becerik-Gerber B, **Roll SC**, Lucas GM. Marker-less ergonomic measurements in real office environments. Poster presentation at: Health in Buildings Roundtable Conference, National Institutes of Health, 2020; *presented virtually due to COVID-19*.
61. Takata SC*, **Roll SC**. Using musculoskeletal sonography to analyze healing tissues of zone II flexor tendon repairs post-surgery. Poster presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2020; *presented virtually due to COVID-19*.
62. Fang Y*, Dole J*, Baker NA, **Roll SC**. Quality of online patient education handouts for carpal tunnel syndrome. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
63. Fukumura YE*, Becerik-Gerber B, Lucas GM, **Roll SC**. Understanding office worker behavior to inform an artificial intelligence workstation. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
64. Liu JC*, **Roll SC**. Characterizing working posture and injury risk in dental hygiene students. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
65. Takata SC*, **Roll SC**. Using sonography to evaluate healing of surgically repaired flexor tendons. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
66. Tung KD*, Baker NA, Forrest JL, **Roll SC**. Evaluating hand strain during the dynamic task of dental scaling. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
67. Yao B*, Takata SC*, **Roll SC**. Effects of extracurricular activity participation on college students' health. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2020; Los Angeles, CA.
68. Forrest JL, Mack WJ, **Roll SC**. Factors associated with the development of hand discomfort in dental hygiene students. Poster presentation at: International Symposium on Dental Hygiene, 2019; Brisbane, Australia.
69. **Roll SC**, Kono N, Forrest JL, Mack WJ. Differential effects of work-related task training on upper extremity health in occupational therapy and dental hygiene students. Poster presentation at: 97th Annual Conference of the American Occupational Therapy Association, 2019; New Orleans, LA.

70. Tung KD*, Fukumura YE*, Baker NA, Forrest JL, **Roll SC**. Identifying an optimal sampling method to estimate postural risk in a dynamic work task. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2019; Los Angeles, CA.
71. Yao B*, Gan K*, Lee A*, **Roll SC**. Dynamic evaluation of median nerve shape in the carpal tunnel. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2019; Los Angeles, CA.
72. Takata SC*, **Roll SC**. Changes in activity participation by students attaining professional degrees. Poster presentation at: Occupational Therapy Summit of Scholars, 2018; Kansas City, MO.
73. **Roll SC**, Cristino A*, Mitchell J. Characterizing changes in the median nerve during hand grip using dynamic sonographic imaging. Poster presentation at: American College of Rheumatology and Association of Rheumatology Health Professions Annual Meeting, 2018; Chicago, IL.
74. Aryal A*, Becerik-Gerbera B, Anselmo F, **Roll SC**, Lucas G. Smart desk to promote health and productivity. Poster presentation at: Health in Buildings for Today and Tomorrow: An Interdisciplinary Conference on Health and the Sustainable Built Environment (NIH, NSF, CDC, GSA), 2018; Bethesda, MD.
75. Melrose D, Wilkins K, Forrest JL, **Roll SC**. Evaluating the development of musculoskeletal injuries in dental hygienists. Poster presentation at: American Dental Education Association Allied Dental Program Directors Conference, 2018; San Diego, CA.
76. **Roll SC**, Takata SC*. Looking beyond the surface to advance prevention and rehabilitation of carpal tunnel syndrome. Poster presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2018; Salt Lake City, UT.
77. Sousaa C, Pozzi F, Plummer H, **Roll SC**, Michener L. Shoulder tendon micromorphology and impairments in dental hygienists. Poster presentation at: International Shoulder Group Conference, 2018; Rochester, NY.
78. Randolph S*, Eckerling R*, Fang Y*, Hardison ME*, **Roll SC**. Identifying risks of development musculoskeletal discomfort in dental hygiene students. Poster presentation at: USC Undergraduate Research Symposium, 2018; Los Angeles, CA.
79. Melrose D, Wilkins K, Forrest JL, **Roll SC**. Evaluating the development of musculoskeletal injuries in dental hygienists. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2018; Los Angeles, CA.
80. Eckerling R*, Fang Y*, Randolph S*, Hardison ME*, **Roll SC**. Identifying risks of development musculoskeletal discomfort in dental hygiene students. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2018; Los Angeles, CA.
81. **Roll SC**, Mitchell J. Dynamic sonographic evaluation of median nerve changes during hand grasp. Poster presentation at: Society of Diagnostic Medical Sonography Annual Conference, 2017; Dallas, TX.
82. Melrose D, Wilkins MA, Forrest JL, **Roll SC**. Identifying risk of hand injuries in dental hygienists: A longitudinal cohort study. Poster presentation at: American Dental Education Association Allied Dental Program Directors Conference, 2017; Baltimore, MD.
83. Hardison ME*, Colclazier NL*, **Roll SC**. Risk assessment for musculoskeletal strain among dental hygienists using video observation. Poster presentation at: 6th Annual Occupational Therapy Summit of Scholars, 2017; Boston, MA.
84. Colclazier NL*, Sumi JY, Forrest JL, **Roll SC**. An observational method for injury risk assessment of dental hygienists. Poster presentation at: 94th Annual Conference of the American Dental Hygienists' Association, 2017; Jacksonville, FL.
85. Takata SC*, Wade E*, **Roll SC**. Linking research to practice in hand therapy: A mapping review. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2017; Los Angeles, CA.
86. Colclazier NL*, Sumi JY, Forrest JL, **Roll SC**. Developing an observational method for assessing dental hygienists' injury risk. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2017; Los Angeles, CA.
87. Melrose D, Wilkins K, Forrest JL, **Roll SC**. Identifying risk of upper extremity injuries in dental hygiene professionals. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2017; Los Angeles, CA.
88. Colclazier NL*, Sumi JY, Forrest JL, **Roll SC**. An observational method for injury risk assessment of dental hygienists. Poster presentation at: Annual Meeting of the Canadian Dental Hygienists Association, 2017; Ottawa, Canada.

89. **Roll SC**, Forrest JL, Mack WJ. Identification of early-stage median nerve pathology using sonographic imaging: Longitudinal, multiple cohort study protocol. Electronic Poster presentation at: Annual Convention of the American Institute of Ultrasound in Medicine, 2017; Orlando, FL.
90. **Roll SC**, Hardison ME*, Black DS. Effects of mind-body intervention on anxiety, stress, and pain in patients receiving hand therapy. Poster presentation at: 39th Annual Meeting of the American Society of Hand Therapists, 2016; Washington, DC.
91. **Roll SC**, Hardison ME*, Black DS. Effects of mind-body interventions on stress, anxiety, and pain in hand therapy. Poster presentation at: Rehabilitation Research at NIH Meeting, 2016; Bethesda, MD.
92. **Roll SC**, Gray JM, Hardison ME*. Musculoskeletal sonography of the upper extremity: Training and implementation in the rehabilitation clinic. Poster presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2016; Chicago, IL.
93. Hardison ME*, **Roll SC**. Mindfulness in rehabilitation: A scoping review. Poster presentation at: 96th Annual Conference of the American Occupational Therapy Association, 2016; Chicago, IL.
94. **Roll SC**, Mack WJ, Forrest JL, Baker LL, Baker NA. Identification of early-stage median nerve pathology: Protocol for a longitudinal, multiple cohort study. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2016; Los Angeles, CA.
95. Hardison ME*, **Roll SC**. Effects of mind-body interventions on anxiety, pain and stress in hand therapy. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2016; Los Angeles, CA.
96. Hardison ME*, **Roll SC**. How does mindfulness impact the experience of healing in clinical environments? Poster presentation at: 14th Annual Research Conferences of the Society for the Study of Occupation USA, 2015; Ft. Lauderdale, FL.
97. Hardison ME*, **Roll SC**. Mindfulness in rehabilitation: A scoping review. Poster presentation at: 4th Annual Occupational Therapy Summit of Scholars, 2015; Los Angeles, CA.
98. **Roll SC**, Gray JM, Frank G. Therapist perceptions of the utility of sonography in rehabilitation of musculoskeletal disorders. Poster presentation at: 95th Annual Conference of the American Occupational Therapy Association, 2015; Nashville, TN.
99. **Roll SC**, Rana M, Sigward S, Yani M, Kirages D, Kutch J. Cadaveric validation and in-vivo measurement reliability of a novel linear-array transperineal sonographic evaluation of male pelvic floor structures. Poster presentation at: 15th World Congress of Ultrasound in Medicine and Biology 2015; Orlando, FL.
100. **Roll SC**, Gray JM, Frank G. Therapist perceptions of sonographic utility in musculoskeletal rehabilitation. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2015; Los Angeles, CA.
101. Hardison ME*, **Roll SC**. Mindfulness in rehabilitation: A scoping review. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2015; Los Angeles, CA.
102. **Roll SC**, Black DS, Rocker JD, Aguilon A. Visual biofeedback and mindfulness training for hand rehabilitation. Poster presentation at: USC Jacquelin Perry Research Day (Institute for Integrative Health), 2014; Los Angeles, CA.
103. **Roll SC**, Kutch JJ. Reliability of transperineal sonographic evaluation of male pelvic floor structures. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2014; Los Angeles, CA.
104. Wolkoff M*, Frank G, McLaughlin-Gray J, **Roll SC**. Therapist perception of the implementation of musculoskeletal sonography in hand rehabilitation. Poster presentation at: 36th Annual Meeting of the American Society of Hand Therapists, 2013; Chicago, IL.
105. Tsai J*, **Roll SC**. Use of musculoskeletal ultrasonography in orthopedic rehabilitation: A scoping review. Poster presentation at: 36th Annual Meeting of the American Society of Hand Therapists, 2013; Chicago, IL.
106. **Roll SC**, Kutch JJ. Transperineal sonographic evaluation of the male pelvic floor. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2013; Los Angeles, CA.
107. Rana M*, **Roll SC**, Kutch JJ. Identifying muscle hyperactivity in chronic pain. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2013; Los Angeles, CA.

108. **Roll SC.** Relationship of tissue morphology to symptoms of carpal tunnel syndrome. Poster presentation at: USC Ostrow School of Dentistry Research Day, 2012; Los Angeles, CA.
109. Fahy C*, **Roll SC.** Sonographic evaluation of median nerve excursion. Poster presentation at: Annual Conference of the Society of Diagnostic Medical Sonography, 2012; Seattle, WA.
110. **Roll SC,** Evans KD. Relationship of psychosocial, personal, and physical factors to physiologic changes in the median nerve. Research in progress poster presentation at: 91st Annual Conference of the American Occupational Therapy Association, 2011; Philadelphia, PA.
111. **Roll SC,** Evans KD. Validation of ultrasonographic methods for the investigation of carpal tunnel syndrome in surgical candidates. Research in progress poster presentation at: 91st Annual Conference of the American Occupational Therapy Association, 2011; Philadelphia, PA.
112. Evans KD, **Roll SC,** Main J, Sommerich CM. Utilizing an animal model to validate a sonographer scanning protocol for the median nerve. Poster presentation at: Annual Conference of the Society of Diagnostic Medical Sonography, 2010; Denver, CO.
113. **Roll SC,** Evans KD. Feasibility of utilizing a hand-carried ultrasound unit for investigating median nerve pathology. Poster presentation at: Ohio State University Medical Center Research Day, 2009; Columbus, OH
114. **Roll SC,** Evans KD. Feasibility of utilizing a hand-carried ultrasound unit for investigating median nerve pathology. Poster presentation at: Annual Conference of the Ohio Occupational Therapy Association, 2009; Dayton, OH.
115. **Roll SC,** Harpster K. Simple, efficient outcomes measurement and reporting for accreditation and marketing. Poster presentation at: 89th Annual Conference of the American Occupational Therapy Association, 2009; Houston, TX.
116. **Roll SC,** Flinn S, Case-Smith J, Clutter J. Discovery of interprofessional perceptions of Ohio Bureau of Workers' Compensation professionals during the provision of physical rehabilitation services for injured workers. Poster presentation at: Annual Conference of the Ohio Occupational Therapy Association, 2006; Zanesville, OH.
117. **Roll SC,** Rogers S. Office ergonomics: A university departmental study. Poster presentation at: 83rd Annual Conference of the American Occupational Therapy Association, 2003; Washington, DC.
118. **Roll SC,** Rogers S. Office ergonomics: A university departmental study. Poster presentation at: Annual Conference of the Ohio Occupational Therapy Association, 2002; Cleveland, OH.