

Hongwu Wang, PhD

I. CONTACT INFORMATION:

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 Department of Occupational Therapy,
 College of Public Health and Health Professions
 University of Florida
 1225 Center Drive
 Gainesville, FL 32611
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 Email: hongwu.wang@phhp.ufl.edu

II. EDUCATION:

2012-2015 Postdoctoral Fellowship – Rehabilitation Engineering and Outcomes Research
 Human Engineering Research Laboratories
 VA Pittsburgh Healthcare System & University of Pittsburgh

2006-2012 Doctor of Philosophy – Rehabilitation Science
 Department of Rehabilitation Science and Technology
 University of Pittsburgh

2003-2005 Master of Science – Biomedical Engineering
 Department of Biomedical Engineering
 Xi'an Jiaotong University, China

1999-2003 Bachelor of Science – Biomedical Engineering
 Department of Biomedical Engineering
 Xi'an Jiaotong University, China

III. PROFESSIONAL EXPERIENCE:

2022-present *Assistant Professor*, Department of Occupational Therapy, University of Florida
Adjunct Professor, Department of Rehabilitation Sciences, University of Oklahoma Health Sciences Center

2019-2021 *Director of PhD Program*, Department of Rehabilitation Sciences, University of Oklahoma Health Sciences Center

2017-2021 *Assistant Professor*, Department of Rehabilitation Sciences, University of Oklahoma Health Sciences Center
Director, Technology for Occupational Performance (TOP) Lab
Adjunct Professor, Peggy and Charles Stephenson School of Biomedical Engineering, University of Oklahoma

2015-2017 Assistant Professor, Department of Rehabilitation Science and Technology, University of Pittsburgh, Pittsburgh, PA

2012-2015 Research Scientist, Human Engineering Research Laboratories, VA Pittsburgh Healthcare System, Pittsburgh, PA

2006-2012 Graduate Research Associate, Department of Rehabilitation Science and Technology, University of Pittsburgh, Pittsburgh, PA

2005-2006 Research Associate, Institute of Biomedical Engineering, Xi'an Jiaotong University, Xi'an, China

IV. HONORS AND AWARDS:

- 2021 Interstellar Initiative Scholar and Proposal Award Winner: New York Academy of Science and the Japan Agency for Medical Research and Development for the 2021–2022 program
- 2021 Faculty Excellence in Teaching Award, College of Allied Health, University of Oklahoma Health Sciences Center
- 2020 PhD student Josiah Rippetoe won Honorable Mention in the 2020 National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) competition
- 2019 Faculty Excellence in Research/Scholarly Achievement Award, College of Allied Health, University of Oklahoma Health Sciences Center
- 2015 National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR) Switzer Distinguished Researcher Fellowship Award
- 2013 Craig Neilsen Foundation Post-doc Fellowship award, Craig Neilsen Foundation
- 2012 Todd Hargroder Scholarship, University of Pittsburgh, PA
- 2010 Lillian Kaufman Scholarship, University of Pittsburgh, PA
- 2010 Rory Cooper-Dion Johnson Award, University of Pittsburgh, PA
- 2009 Student Scientific Paper Competition Winner, 2009, RESNA (Rehabilitation Engineering and Assistive Technology Society of North America) Conference, Washington DC, USA
- 2008 Student Scientific Paper Competition Winner, 2008, RESNA (Rehabilitation Engineering and Assistive Technology Society of North America) Conference, Washington DC, USA
- 2005 Golden Medal Award of Xi'an Jiaotong University "Tengfei" Cup Innovation Competition, Xi'an, China
- 2004-2005 'PengKang' Excellent Graduate Student scholarship, Xi'an Jiaotong University, Xi'an, China

V. RESEARCH AND SCHOLAR ACTIVITIES:**a. Research Support**Ongoing Support

- 2021-2025 Principal Investigator (Kwon), *Happy Teacher Wellness Intervention: Creating a Culture of Head Start Staff Well-Being and Competence*, Department of Health and Human Services Administration for Children and Family (9/30/2021-9/29/2025, Total award: \$1,980,028, Co-PI: 10%)
- 2020-2022 Principal Investigator (Day), *Non-invasive method for quantifying progress of healing after transtibial amputation: a pilot study*, Center for Orthotic and Prosthetic Learning and Outcomes/ Evidence-Based Practice (COPL) (9/1/2020-8/31/2021, Total award: \$29,895, Responsible investigator/Co-PI: 5%)

Completed Support

- 2021-2023 Principal Investigator (Wang), *Peripheral Nerve Responses to Focal Vibration and Implications in Pain and Mobility for Patients with Diabetic Peripheral Neuropathy*, Presbyterian Health Foundation New Investigator Seed Grant (7/1/2021-6/30/2023, Total award: \$100,000, PI: 15%) (fund returned due to resignation)

- 2020-2021 Principal Investigator (Wang), *Wearable Focal Vibration for Chemotherapy-Induced Peripheral Neuropathy*, SCC NCI P30 Cancer Therapeutics/ Cancer Prevention & Control Seed Award (10/1/2020-4/30/2022, Total award: \$20,000, PI: 10%)
- 2019-2021 Principal Investigator (Degrace), *Expanding Beyond Inclusion: Participation of Children with High Intensity Needs*, US Department of Education (1/1/2019-12/31/2023, Total award: \$ 1,249,985, Co-I: 3.5%)
- 2018-2021 Principal Investigator (Wang), *Development and Evaluation of Vibration-based Wearable Upper Limb Rehabilitation Device*, Oklahoma Center for the Advancement of Science and Technology (10/1/2018-9/30/2021, Total award: \$134,964, Award number: HR18-034, PI: 15%)
- 2020-2021 Principal Investigator (Hile), *Feasibility Pilot for Trajectories of Decline in CIPN Mobility Disability: Beyond Somatosensation*, Presbyterian Health Foundation (6/1/2020-5/31/2021, Total award: \$49,992, Co-I: 2%)
- 2019-2021 Principal Investigator (Wang), *Wearable Vibration Therapy to Improve Gait and Mobility in People with Multiple Sclerosis*, Presbyterian Health Foundation (7/1/2019-6/30/2021, Total award: \$49,890, PI: 10%)
- 2019-2021 Principal Investigator (Wang), *Effects of a Wearable Focal Vibration Device on Gait and Mobility in Diabetic Peripheral Neuropathy*, Exploratory Grant award from Harold Hamm Diabetes Center at the University of Oklahoma (1/1/2019-5/31/2020, Total award: \$99,000, PI: 10%)
- 2016-2020 Principal-Investigator (Wang), *Development of a Pneumatic Power Assist Wheelchair (PneuPAW)*, NIDILRR Switzer (10/1/16-9/30/2020 (NCE); Total award: \$80,000; Award number: SF16000038, PI: 25%)
- 2018-2019 Principal Investigator (Wang), *Effect of Focal Vibration in Balance, Gait, Mobility and Pain in Diabetic Peripheral Neuropathy*, Faculty Seed Grant award from College of Allied Health at the University of Oklahoma Health Sciences Center (7/1/2018-6/30/2019, Total award: \$5,000, PI: 10%)
- 2015-2017 Principal Investigator (Wijesundara), *Automated Seat Cushion for Pressure Ulcer Prevention*, US Amy (09/01/2015 – 08/31/2017, Total award: \$232,090, Award number: W81XWH-15-1-0719, Co-I: 10%)
- 2014-2017 Principal Investigator (Cooper), *Assessment of an Experimental Robotic-Assisted Transfer Device (HERL-RATD)*, Department of Veterans Affairs (05/01/2014 – 04/30/2017, Total award: \$1,097,211, Award number: F1454-R, Co-I: 10%)
- 2014-2016 Principal Investigator (Wang), *Psychometric Properties of an Assistive Robotic Manipulator Evaluation Tool*, Rehabilitation Institute Pilot Award (05/01/16-04/30/17, Total award: \$16,934, PI: 10%)
- 2014-2015 Principal Investigator (Wang), *Development of an Assistive Robotic Manipulator Performance Evaluation Tool*, Craig H. Neilsen Foundation (01/01/14-12/31/15, Total award: \$150,000, Award number: 278966, PI: Hongwu Wang, PI: 90%)
- 2013-2018 Principal Investigator (Ding), *Self-Management Assistance Through Technology – Virtual Coaches for Wheelchair Users*, NIDILRR (10/01/2013 – 09/30/2018, Total award: \$2,372,506, Award number: DRRP #H133A130025, Co-I: 10%)
- 2012-2013 Principal Investigator (Ding), *Rehabilitation Research & Training Center on Advanced Rehabilitation Research Training: Career Advancement for Engineers*

in the Science of Rehabilitation (CAESOR), National Institute on Disability, Independent Living, & Rehabilitation Research (NIDILRR) (10/01/09-09/30/14, Total award: \$750,000, Award number: H133P140012, Post-doc fellow)

b. Patents:

1. User adjustable wheelchair backrest mounting hardware (2013), US8376463B2
2. Seating function monitoring and coaching system (2015), US20150209207A1
3. Pneumatic Powered Mobility Devices (2016), WO2017120184 A1
4. Mobility Enhancement Robotic Wheelchair (2017), WO2017053689A8
5. Apparatus for Measuring Toe Flexion and Extension (2019), Patent pending: 16/915,956
6. Wearable Focal Vibration Device and Methods of Use (2020), Patent pending: 17/206,016

c. Publications:

i. Peer Reviewed Manuscripts (*= advisee is lead author)

1. Fu J, Zhang S, **Wang H**, Zhao YD, Qian G. A Novel Mobile Device-Based Approach to Quantitative Mobility Measurements for Power Wheelchair Users. *Sensors*. 2021; 21(24):8275. <https://doi.org/10.3390/s21248275>
2. Charbonnet M*, Sylvester L, **Wang H**, DeGrace BW. Provision of paediatric wheelchairs in low resource settings: a scoping review. *Disabil Rehabil Assist Technol*. 2021 Oct 6:1-19. doi: 10.1080/17483107.2021.1986582. Epub ahead of print. PMID: 34614386.
3. Ghazi M*, Rippetoe J, Chandrashekhar R, **Wang H**. Focal Vibration Therapy: Vibration Parameters of Effective Wearable Devices. *Applied Sciences*. 2021; 11(7):2969. <https://doi.org/10.3390/app11072969>
4. Chandrashekhar R*, **Wang H**, Dionne C, James S, Burzycki J. Wearable Focal Muscle Vibration on Pain, Balance, Mobility, and Sensation in Individuals with Diabetic Peripheral Neuropathy: A Pilot Study. *International Journal of Environmental Research and Public Health*. 2021; 18(5):2415. <https://doi.org/10.3390/ijerph18052415>
5. **Wang H**, Dionne C, Anadani NA, Brown SC, Shuping M, Wilson L. An Exploratory Study of Wearable Vibration Therapy on Gait and Mobility in People with Multiple Sclerosis. *Assistive Technology*. 2021; 33(3): 159-159.
6. Rippetoe J*, **Wang H**, James S, Dionne C, Block B, Beckner M (2020), Improvement of Gait after 4 Weeks of Focal Muscle Vibration Therapy for Individuals with Diabetic Peripheral Neuropathy, *J. Clin. Med*. 2020, 9(11), 3767; <https://doi.org/10.3390/jcm9113767>
7. **Wang H**, Chandrashekhar, Rippetoe, Ghazi M (2020), Focal Muscle Vibration for Stroke Rehabilitation: A Review of Vibration Parameters and Protocols, *Appl. Sci*. 2020, 10(22), 8270; <https://doi.org/10.3390/app10228270>
8. Stauter DW, Prehn J, Peters M, Jeffries LM, Sylvester L, **Wang H**, Dionne C (2019), Assistive Technology for Literacy in Students with Physical Disabilities: A Systematic Review, *Journal of Special Education Technology*. <https://doi.org/10.1177/0162643419868259>
9. Sivaprakasam A*, **Wang H**, Cooper RA, Koontz AM, Innovation in transfer assist technologies for persons with severe disabilities and their caregivers, *IEEE Potentials*, pp. 34-41, Vol. 36, No. 1, January/February 2017.
10. Sundaram SA, **Wang H**, Ding D, Cooper RA, Step Climbing Power Wheelchairs: A Literature Review, *Topics in Spinal Cord Injury Rehabilitation*, pp. 98-109, Vol. 23, No. 2, Spring 2017.

11. Candiotti J, Sundaram SA, Daveler B, Gebrosky B, Grindle GG, **Wang H**, Cooper RA, Kinematics and Stability Analysis of a Novel Power Wheelchair When Traversing Architectural Barriers, *Topics in Spinal Cord Injury Rehabilitation*, pp. 110-119, Vol. 23, No. 2, Spring 2017.
12. Daveler B, **Wang H**, Gebrosky B, Grindle GG, Schneider U, Cooper RA, Integration of Pneumatic Technology in Powered Mobility Devices, *Topics in Spinal Cord Injury Rehabilitation*, pp. 120-130, Vol. 23, No. 2, Spring 2017.
13. Chung C, Ka H, **Wang H**, Ding D, Kelleher AR, Cooper RA, Performance Evaluation Of A Mobile Touchscreen Interface For Assistive Robotic Manipulators: A Pilot Study, *Topics in Spinal Cord Injury Rehabilitation*, pp. 131-139, Vol. 23, No. 2, Spring 2017.
14. Chung C, **Wang H**, Hannan MJ, Kelleher AR, Cooper RA, Daily Task-Oriented Performance Evaluation for Commercially Available Assistive Robot Manipulators, *International Journal of Robotics and Automation Technology*, pp. 16-27, Vol. 3, No, 1, July 2017.
15. Chung C, **Wang H**, Hannan MJ, Kelleher AR, Cooper RA, Task-Oriented Performance Evaluation for Assistive Robotic Manipulators: A Pilot Study, *American Journal of Physical Medicine and Rehabilitation*, pp. 395-407, Vol. 96, No. 6, June 2017.
16. Burkman J, Grindle GG, **Wang H**, Kelleher AR, Cooper RA, Further Development of a Robotic Assisted Transfer Device, *Topics in Spinal Cord Injury Rehabilitation*, pp. 140-146, Vol. 23, No. 2, Spring 2017.
17. Peterson SL, Laferrier JZ, Koontz AM, **Wang H**, Hannan M, Cooper RA, Psychological Strategies of Veterans Who Participate in Organized Sports, *Journal of Military, Veteran and Family Health*, pp. 42-52, Vol. 3, No. 2, 2017.
18. Candiotti J, **Wang H**, Shino M, Chung C, Kamaraj D, Cooper RA, Design and Evaluation of a Seat Orientation Controller during Uneven Terrain Driving, *Medical Engineering and Physics*, pp. 241-247, Vol. 38, No. 3, 2016.
19. Daveler B, Salatin B, Grindle GG, Candiotti J, **Wang H**, Cooper RA, Participatory design and validation of mobility enhancement robotic wheelchair, *Journal of Rehabilitation Research and Development*, pp. 739-750, Vol. 52, No. 6, 2015.
20. Grindle GG, **Wang H**, Jeannis H, Teodorski E, Cooper RA, Design and User Evaluation of a Wheelchair Mounted Robotic Assisted Transfer Device, *BioMed Research International*, Article ID 198476, 2014.
21. **Wang H**, Tsai C, Jeannis H, Chung C, Kelleher AR, Grindle GG, Cooper RA, Stability Analysis of an Electrical Powered Wheelchair Mounted Robotic Assisted Transfer Device, *Journal of Rehabilitation Research and Development*, pp. 761-774, Vol. 51, No. 5, 2014.
22. **Wang H**, Xu J, Kelleher AR, Ding D, Grindle GG, Vazquez J, Salatin B, Cooper RA, Performance Evaluation of the Personal Mobility and Manipulation Appliance (PerMMA), *Medical Engineering and Physics*, pp. 1613-1619, Vol. 35, No. 11, November 2013.
23. Chung CS, **Wang H**, Cooper RA, Literature Review: Functional Assessment and Performance Evaluation for Assistive Robotic Manipulators, *Journal of Spinal Cord Medicine*, pp. 273-289, Vol. 36, No. 4, 2013.
24. **Wang H**, Candiotti J, Shino M, Chung C, Grindle GG, Ding D, Cooper RA, Development of the Personal Mobility and Manipulation Appliance Gen II (PerMMA II), *Journal of Spinal Cord Medicine*, pp. 333-346, Vol. 36, No. 4, 2013.
25. Cooper RA, Grindle GG, Vazquez JJ, Xu J, **Wang H**, Candiotti J, Salatin B, Houston E, Kelleher AR, Cooper RM, Teodorski E, Beach S, Personal Mobility and Manipulation

- Appliance (PerMMA) - Design, Development and Initial Testing, Proceedings of the IEEE, pp. 2505-2511, Vol. 100, No. 8, August 2012.
26. Karmarkar A, Cooper RA, **Wang H**, Kelleher AR, Cooper RM, Analyzing Wheelchair Mobility Patterns of Community Dwelling Older Adults, *Journal of Rehabilitation Research and Development*, pp. 1077-1086, Vol. 48, No. 9, 2011.
 27. Grindle GG, **Wang H**, Salatin B, Vazquez JJ, Cooper RA, Design and Development of the Personal Mobility and Manipulation Appliance (PerMMA), *Assistive Technology*, pp. 81-92, Vol. 23, No. 2, June 2011.
 28. Hong E, Pearlman JL, Salatin B, **Wang H**, Liu H, Cooper RA, Hargroder T, Design and Development of a Lightweight Durable Adjustable Composite Backrest Mounting, *Assistive Technology*, pp. 24-35, Vol. 23, No. 1, March 2011.
 29. **Wang H**, Liu HY, Pearlman J, Cooper RM, Jefferds A, Connor S, Cooper RA, Relationship Between Wheelchair Durability and Wheelchair Type and Test Years, *Disability and Rehabilitation: Assistive Technology*, pp. 318-322, Vol. 5, No. 5, September 2010.
 30. Brose S, Weber D, Salatin B, Grindle GG, **Wang H**, Vazquez JJ, Cooper RA, The Role of Assistive Robotics in the Lives of Persons with a Disability, *American Journal of Physical Medicine and Rehabilitation*, pp. 509-521, Vol. 89, No. 6, June 2010.
 31. Liu H, Pearlman J, Cooper RM, Hong E, **Wang H**, Salatin B, Cooper RA, Evaluation of Aluminum Ultralight Rigid Wheelchairs Using ANSI/RESNA Standards and Compared with Other Ultralight Wheelchairs, *Journal of Rehabilitation Research and Development*, pp. 441-456, Vol. 47, No. 5, 2010.
 32. **Wang H**, Salatin B, Grindle GG, Ding D, Cooper RA, Real-Time Model Based Electrical Powered Wheelchair Control, *Medical Engineering and Physics*, pp. 1244-1254, Vol. 31, No. 10, December 2009.
 33. Cooper RA, Dicianno BE, Brewer B, LoPresti E, Ding D, Simpson RC, Grindle GG, **Wang H**, A Perspective on Intelligent Devices and Environments in Medical Rehabilitation, *Medical Engineering and Physics*, pp. 1387-1398, Vol. 30, No. 10, December 2008.
 34. Pei X, Zheng C, Xu J, Bin G and **Wang H** (2006). Multi-channel linear descriptors for event-related EEG collected in brain computer interface. *Journal of Neural Engineering*. 3: 52-58.
 35. Yang Y, Wang J, Niu F, **Wang H**. (2006). Design of a sine sweeping current source. (In Chinese). *Chinese Journal of Scientific Instrument*. 27 (Z1).
 36. Yang Y, Wang J, Niu F, **Wang H**. (2006). Development of a bioimpedance spectrometer based on AD8302. (In Chinese). *Chinese Journal of Scientific Instrument*. 27 (Z1).
 37. Wang Z, **Wang H**, Yang M. (Adviser: Dai Y) (2005). On Optimal Station Distribution of Target Localization. (In Chinese). *Mathematics in Practice and Theory*. 35(7): 27-33. (Excellent thesis of the first Chinese college graduate MCM)
- ii. Invited Publications or Book Chapters
1. *Assistive Technology for People with Traumatic Brain Injuries*, R.A. Cooper, M. McCue, R.M. Schein, R.M. Cooper, M.L. Sporer, M.B. Dodson, A.M. Reinsfelder, A.F. Yeager, A. Jinks, E. LoPresti, L. McClure, **H. Wang**, J.L. Collinger, S. Hiremath, A.N. Lewis.
- iii. Proceedings, Abstracts, and Non-referenced Papers
1. **Wang H**, Tsotsoros J, Efaw A. Integrating Data Collection During Fieldwork to Enhance Experiential Learning for the Research Course. AOTA 2021 Education Summit, St. Louis, MO, October 22-23.

2. Rippetoe J*, **Wang H**, Xu C, Hile E. Reliability of 1st Ray Contribution to Plantar Force During Gait Push-Off in Women with Cancer. BMES 2021 Annual Meeting, Orlando, FL, October 6-9.
3. Tian R, Sikora D, Lepak LV, Cheema C, Jelley M, Bandeh A, Yabluchanskiy A, **Wang H**, Sidorov E, Nelson P, Syed H, Refai H, Bodurka J, Dewald PA, Yang Y, Influence of white matter tract orientation on the effect of transcranial direct current stimulation: a computer simulation study. BMES 2021 Annual Meeting, Orlando, FL, October 6-9.
4. Chandrashekhar R*, Ghazi M, **Wang H**. PORTA: An Accessibility Switch Interface Based on Open-Source Hardware. RESNA 2021 Virtual Conference Developers' Showcase, July 7 – 9, 2021.
5. Fu J., Howell S., Zhang S., Qian G., Zhao D.Y., **Wang H**. (2021) Towards a Practical Approach for Assessing Pressure Relief Activities for Manual Wheelchair Users in Their Daily Lives. In: Duffy V.G. (eds) Digital Human Modeling and Applications in Health, Safety, Ergonomics and Risk Management. AI, Product and Service. HCII 2021. Lecture Notes in Computer Science, vol 12778. Springer, Cham. https://doi.org/10.1007/978-3-030-77820-0_4
6. **Wang H**, Littlefield S, Shuping M, Burzycki J. Patients Satisfaction and Experience on Wearable Focal Vibration Muscle Therapy for In Home Rehabilitation. AOTA Inspire 2021 - Tech Panel, Oral Presentation. April 6-9, 2021
7. Beckner M*, Block B, Burzycki J, **Wang H**. Effect of Focal Muscle Vibration on Gait in Persons with Multiple Sclerosis. 2021 College of Allied Health Research Day, poster presentation. Oklahoma City, Oklahoma, 4/2/2021
8. Block B*, Beckner M, Burzycki J, **Wang H**. Effects of Focal Muscle Vibration on Balance and Mobility in Persons with Diabetic Peripheral Neuropathy. 2021 College of Allied Health Research Day, poster presentation. Oklahoma City, Oklahoma, 4/2/2021
9. Burzycki J*, Block B, Beckner M, **Wang H**. Correlation Between Changes in Mobility and Satisfaction with Wearable Focal Muscle Vibration in Patients with Diabetic Peripheral Neuropathy and Multiple Sclerosis. 2021 College of Allied Health Research Day, poster presentation. Oklahoma City, Oklahoma, 4/2/2021
10. Chandrashekhar R*, Miller B, James S, **Wang H**. Interventions for paretic propulsion in individuals with stroke: a scoping review. 2021 College of Allied Health Research Day, Oral presentation. 2021 Rudeen Research Enhancement Award for Excellence in Research. Oklahoma City, Oklahoma, 4/2/2021
11. Day J*, Carol D, Zhao D, Yabluchanskiy A, Ertl W, **Wang H**. Non-Invasive Method for Quantifying Progress of Healing after Transtibial Amputation: A Pilot Study. 2021 College of Allied Health Research Day, Oral presentation. Oklahoma City, Oklahoma, 4/2/2021
12. Rippetoe J*, **Wang H**, Hile E, Xu C. Gait changes with earliest onset of chemotherapy-induced peripheral neuropathy: are we seeing the whole picture? 2021 College of Allied Health Research Day, Oral presentation. Oklahoma City, Oklahoma, 4/2/2021
13. Ghazi M*, Clemmons N, **Wang H**, Chandrashekhar R. Cast study for PORTA: An accessibility switch interface based on open-source hardware. 2021 College of Allied Health Research Day, Oral presentation. Oklahoma City, Oklahoma, 4/2/2021
14. Rippetoe J*, **Wang H**. Focal Vibration Improves Gait in Individuals with Multiple Sclerosis. 2021 GREAT Symposium Oral Presentation, Oklahoma City, Oklahoma, 3/18/2021.

15. Chandrashekhar R*, **Wang H.** Role of Pain on Effects of Focal Muscle Vibration on Gait, Mobility, and Balance in Diabetic Peripheral Neuropathy. 2021 GREAT Symposium Oral Presentation, Oklahoma City, Oklahoma, 3/18/2021.
16. **Wang H,** Dionne C, Anadani N, Brown S, Shuping M, Wilson L. An Exploratory Study of Wearable Vibration Therapy on Gait and Mobility in People with Multiple Sclerosis, RESNA 2020. Oral presentation. September 23-24, 2020
17. Rippetoe J*, Brown S, Shuping M, Foote M, Wilson L, Dionne C, **Wang H.** Effects of Focal Vibration on Gait of Individuals with Diabetic Peripheral Neuropathy. RESNA 2020 Student Scientific Paper Competition Winner. September 23-24, 2020
18. Chandrashekhar R*, Brown S, Shuping M, Foote M, Dionne C, James S, **Wang H.** Effect of focal muscle vibration on pain, mobility, balance, and sensation in diabetic peripheral neuropathy. RESNA 2020 Student Scientific Paper Competition Runner-up. September 23-24, 2020
19. Rippetoe J*, **Wang H.** Vibration Improves Gait in Diabetic Peripheral Neuropathy. 2020 GREAT Symposium oral and Flash Talk Presentation.
20. Chandrashekhar R*, **Wang H.** Vibration Reduces Pain and Improves Balance, Mobility, and Sensation in Diabetic Peripheral Neuropathy. 2020 GREAT Symposium oral and Flash Talk Presentation.
21. **Wang H,** Fu J, James S. Achieving Affordable Quantitative Assessment of Daily Pressure Relief Activities for Manual Wheelchair Users. 2020 College of Allied Health Research Day, oral presentation.
22. Rippetoe J*, Brown S, Shuping M, Foote M, Wilson L, Dionne C, **Wang H.** Effects of Focal Vibration on Gait in Individuals with Diabetic Peripheral Neuropathy. 2020 College of Allied Health Research Day, oral presentation.
23. Chandrashekhar R*, Brown S, Shuping M, Foote M, Dionne C, James S, **Wang H.** Effect of focal muscle vibration on pain, mobility, balance, and sensation in diabetic peripheral neuropathy. 2020 College of Allied Health Research Day, oral presentation.
24. **Wang H,** Dionne C, Anadani N, Brown S, Shuping M, Wilson L. Wearable Vibration Therapy on Gait and Mobility in People with Multiple Sclerosis. 2020 College of Allied Health Research Day, poster presentation.
25. Brown S*, Shuping M, Foote M, **Wang H.** Patients Satisfaction and Perspective on Wearable Focal Vibration Therapy for Home Usage. 2020 College of Allied Health Research Day, poster presentation.
26. **Wang H,** Wearable focal vibration for upper limb rehabilitation in stroke. OT Inventors Showcase at the 2020 AOTA Annual Conference & Expo. March 28, 2020
27. **Wang H,** et al (2019). Effects of a Wearable Focal Vibration Device on Gait and Mobility in Diabetic Peripheral Neuropathy. Harold Hamm Diabetes Center Research Symposium 2019, November 15, 2019.
28. **Wang H,** et al (2019). Effect of focal vibration in balance, gait, mobility and pain in diabetic peripheral neuropathy. Proceedings of the 96th Annual Meeting of the ACRM; 2019 Nov 5-8; Chicago, Illinois.

29. Baumgardner L*, Sarah B*, Ghazi M, Hile E, **Wang H**, ToeTronics: a portable device measuring the toe extensor strength. RehabWeek (2019) the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Student Design Competition finalist, Toronto, CA: June 24-28, 2019.
30. Rippetoe J*, Ghazi M, **Wang H**, Quantifying Vibration Characteristics of Focal Vibration Therapy. RehabWeek (2019) the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Annual Conference, Toronto, CA: June 24-28, 2019.
31. **Wang H**, Dzul-Garcia, Bolding R, Raybon B, Design Consideration on Pediatric Walkers for Children with Cerebral Palsy. RehabWeek (2019) the Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Annual Conference, Toronto, CA: June 24-28, 2019.
32. **Wang H**, Focal Vibration Therapy: Perspective from Patients with Stroke and Therapist. RehabWeek (2019) International Neurorehabilitation Symposium (INRS) 2019, Toronto, CA: June 24-28, 2019.
33. **Wang H**, Effects of a Wearable Focal Vibration Device on Gait and Mobility in Diabetic Peripheral Neuropathy. College of Allied Health 9th Annual Research Day, Oklahoma City, OK; April 12, 2019. (Oral presentation)
34. Blanden H*, **Wang H**, Correlation of Grip Strength and Patient-Rated Outcome Measures in Orthopedic Dysfunction. College of Allied Health 9th Annual Research Day, Oklahoma City, OK; April 12, 2019. (Oral presentation and the best student presentation award winner)
35. Ingram E*, **Wang H**, Effect of Patient-Centered Occupational Therapy Intervention in Inpatient Rehabilitation. College of Allied Health 9th Annual Research Day, Oklahoma City, OK; April 12, 2019.
36. Lusch A*, **Wang H**, Parent Perceived Performance and Satisfaction of Child's Swimming and Safety Skills Following iCAN Swim Camp. College of Allied Health 9th Annual Research Day, Oklahoma City, OK; April 12, 2019.
37. Rucci A*, **Wang H**, Effectiveness of Occupational Therapy Intervention Post-Upper Extremity Injury on Reported Performance and Satisfaction of IADLs. College of Allied Health 9th Annual Research Day, Oklahoma City, OK; April 12, 2019. (Oral presentation)
38. Rippetoe J*, Ghazi M, **Wang H**, Examining Vibration Parameters for the Development of Precision Focal Vibration Therapy. Third Annual OU-OUHSC Biomedical Engineering Symposium, Oklahoma City, OK; March 29, 2019.
39. Lusch A*, **Wang H** (2019). Impact of iCAN swim camp on parent perceived performance and satisfaction of child's swimming and water safety skills. Thirteenth Annual Department of Pediatrics Research Day, Oklahoma City, OK; March 8, 2019.
40. Bulloch S*, **Wang H**, Robinson C, Focal Muscle Vibration for Post-Stroke Rehabilitation: A Systematic Review of Protocols and Outcomes, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington, VA, July 13-15, 2018.
41. **Wang H**, Tsotsoros JD, Robinson C. (2018) Outcome Measures Used In Acute Care by Occupational Therapists, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington, VA, July 13-15, 2018.
42. **Wang H**, Ding D, Cooper RA (2018). Analysis of a robotic manipulator performance with an ICF based task taxonomy and a complex functional task. Occupational Therapy Summit of Scholars, Kansas City, Missouri; June 8-9, 2018. (oral presentation)

43. Blankenship K*, Beyer J*, **Wang H**. Does caregiver type relate to physical function of older adults in a skilled nursing facility? College of Allied Health 8th Annual Research Day, Oklahoma City, OK; April 13, 2018. (Oral presentation)
44. Bulloch S*, Coon C, Mdzinarishvili A, **Wang H**. Focal muscle vibration for post-stroke rehabilitation: A systematic review of protocols and outcomes. College of Allied Health 8th Annual Research Day, Oklahoma City, OK; April 13, 2018. (Oral presentation)
45. **Wang H**, Tsotsoros JD, Robinson C (2018). Outcome measures used in acute care by occupational therapist. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018. (oral presentation)
46. Blankenship K*, **Wang H**. Does caregiver type relate to physical function of older adults in a skilled nursing facility? College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018. (oral presentation)
47. Gilsinger M*, **Wang H**. Effectiveness of attending a developmental preschool on children with developmental disabilities. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018. (oral presentation)
48. Coon C*, **Wang H**. Whole-Body Vibration Protocol And Outcomes In Post-Stroke Rehabilitation: A Systematic Review. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018.
49. Hanna C*, **Wang H**. The Effect of ADL Training on the Functional Independence of Older Adults with Deconditioning. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018.
50. Hanna C*, **Wang H**. Determining the Effectiveness of Occupational Therapy Interventions with Patients Diagnosed with Deconditioning. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018.
51. Danielle Schlegel D*, **Wang H**. Effectiveness of Occupational Therapy on Functional Independence Following Pediatric Neurological Injury. College of Allied Health Research Day, Oklahoma City, OK; April 13, 2018.
52. Bulloch S*, **Wang H**, Robinson C, Focal Muscle Vibration for Post-Stroke Rehabilitation: A Systematic Review of Protocols and Outcomes, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington, VA, July 13-15, 2018.
53. Chung CS, **Wang H**, Ding D, Cooper RA, Daily Static Prehensile Patterns Analysis of Commercial Assistive Robotic Manipulators, Paralyzed Veterans of America Summit, National Harbor, MD, August 29-31, 2017.
54. **Wang H**, Chung C, Petruskie B, Ding D, Kelleher AR, Cooper RM, Cooper RA, Design and Development of an Assistive Robotic Manipulation Evaluation Tool (ARMET), Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington VA, July 10-14, 2016. (oral presentation)
55. Chung C, **Wang H**, Ding D, Cooper RA, Feasibility Analysis of Daily Activities Using Assistive Robotic Manipulators, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington VA, July 10-14, 2016. (oral presentation)
56. Langdon B*, **Wang H**, Ding D, Analysis of Assistive Robotic Manipulator (ARM) Performance Based on a Task Taxonomy, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington VA, July 10-14, 2016. (oral presentation)

57. Riojas K*, Candiotti J, Daveler B, Grindle GG, **Wang H**, Cooper RA, Participatory Action Design of a Robotic Mobility Device Graphical User Interface, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington VA, July 10-14, 2016. (oral presentation)
58. Sundaram SA, Candiotti J, **Wang H**, Cooper RA, Development and Simulation of a Self-Leveling Algorithm for the Mobility Enhancement Robotic Wheelchair, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Arlington VA, July 10-14, 2016.
59. Chung C, Boninger J, **Wang H**, Cooper RA, The Jacontrol: Development of a Smartphone Interface for the Assistive Robotic Manipulator, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Denver CO, June 10-14, 2015. (oral presentation)
60. **Wang H**, Coyle E, Candiotti J, Chung C, Ding D, Collins E, Cooper RA, Development of a Terrain Dependent Power Wheelchair Driver Assistance System, International Seating Symposium, Nashville, TN, February 26-28, 2015. (oral presentation)
61. Chuy O, Collins EG, Ordonez, E, Candiotti J, **Wang H**, Cooper RA, Slip Mitigation for an Electric Powered Wheelchair, IEEE International Conference on Robotics and Automation, Hong Kong, May 31-April 7, 2014.
62. Chung C, Hannan M, **Wang H**, Kelleher AR, Cooper RA, Adapted Wolf Motor Function Test for Assistive Robotic Manipulators User Interfaces: A Pilot Study, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Indianapolis, IN, June 11-15, 2014. (oral presentation)
63. Houston E, Brown L, Barbara J, Grindle GG, **Wang H**, Kelleher AR, Schmeler M, Cooper RA, Initial Design and Development of a Modular Activities of Daily Living Board for Task Performance Assessment, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Indianapolis, IN, June 11-15, 2014.
64. **Wang H**, Chung C, Candiotti J, Grindle GG, Ding D, Cooper RA, User Participatory Design: Lessons Learned from PerMMA Development, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Seattle, WA, June 20-24, 2013. (oral presentation)
65. Chung C, **Wang H**, Kelleher AR, Cooper RA, Development of a Standardized Performance Evaluation ADL Task Board for Assistive Robotic Manipulators, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Seattle, WA, June 20-24, 2013. (oral presentation)
66. Daveler B, Candiotti J, Grindle GG, Cooper RA, **Wang H**, Design and Development of a Caster Wheel Lock Mechanism for a Robotic Power Chair, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Seattle, WA, June 20-24, 2013. (oral presentation)
67. Wu Y, Liu H, Kelleher AR, **Wang H**, Cooper RA, A Smartphone Application for Improving Powered Seat Functions Usage: A Preliminary Test, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Seattle, WA, June 20-24, 2013. (oral presentation)
68. Cooper RA, Cooper RM, **Wang H**, Grindle GG, Houston E, Chung C, Kelleher AR, Candiotti J, Human-Robot Cohabitation: The Future of Assistive Robots, Association for the Advancement of Assistive Technology in Europe Conference, Vilamoura, Algarve, Portugal, September 19-22, 2013.

69. Hintzman Z, Candiotti J, **Wang H**, Chuy O, Implementation of a Slip Reduction Algorithm for Electric Powered Wheelchairs, SACNAS National Conference, San Antonio TX, October 3-6, 2013. (oral presentation)
70. **Wang H**, Grindle GG, Candiotti J, Chung C, Shino M, Houston E, Cooper RA. The Personal Mobility and Manipulation Appliance (PerMMA): A Robotic Wheelchair with Advanced Mobility and Manipulation. The 34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, San Diego, California, USA 2012. (oral presentation)
71. Candiotti J, **Wang H**, Chung C, Shino M, Cooper RA, Design and Development of a Step Climbing Sequence for a Novel Electric Powered Wheelchair, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Baltimore, MD, CD-ROM, June 28-July 3, 2012.
72. **Wang H**, Ding D, Cooper RA, How Driving Parameters Affect an Electrical Powered Wheelchair's Slip on Different Terrains, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Toronto, ON, Canada, CD-ROM, June 5-8, 2011. (oral presentation)
73. Cooper RA, Cooper RM, Srinivasa S, Xu J, **Wang H**, Grindle G, Salatin B, Chung CS, Kelleher AR, Vazquez JJ, Quality of Life Technology Robots (QoLTbolts): Towards Providing Assistance in the Home and Community for People with Disabilities and Older Adults, Everyday Technology for Independence and Care: Proceedings of the Association for the Advancement of Assistive Technology in Europe, Maastricht, the Netherlands, August 31-September 2, 2011.
74. **Wang H**, Salatin B, Grindle GG, Bachman E, Ding D, Cooper RA, Real-Time Forwarding Tipping Detection and Prevention of a Front Wheel Drive Electric Powered Wheelchair, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Las Vegas, NV, CD-Rom, June 26-30, 2010. (oral presentation)
75. **Wang H**, Liu H, Pearlman J, Jefferds A, Cooper RM, Cooper RA, Seventeen Years of Wheelchair Life-cycle Testing—the Impact of Time, Materials and Wheelchair Designs on Durability and Value, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, Las Vegas, NV, CD-Rom, June 26-30, 2010. (oral presentation)
76. Kumar A, Karmarkar A, **Wang H**, Sporer M, Grindle GG, Kelleher AR, Cooper RA, Quantifying Driving Characteristics During Wheelchair Soccer, International Seating Symposium, Vancouver BC, March 10-13, 2010.
77. Hong E, Pearlman J, Salatin B, **Wang H**, Liu H, Cooper RA, Hargroder T, Design Changes of a Lightweight, Durable, Adjustable Composite Backrest Mounting, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, June 23-27, 2009.
78. **Wang H**, Salatin B, Grindle GG, Ding D, Cooper RA, Real-time Slip Detection and Traction Control of Electrical Powered Wheelchairs, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, CD-Rom, June 23-27, 2009. (oral presentation)
79. **Wang H**, Liu H, Connor S, Cooper RA, Relationship Between Wheelchair Durability and Wheelchair Types and Test Years, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, CD-Rom, June 23-27, 2009. (oral presentation)

80. Liu H, Pearlman J, Hong E, Salatin B, **Wang H**, Cooper RM, Cooper RA, Comparison of Durability and Cost Effectiveness Between Aluminum and Titanium Ultralight Rigid Frame Manual Wheelchairs, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, CD-Rom, June 23-27, 2009.
81. Salatin B, **Wang H**, Grindle GG, Ding D, Cooper RA, Electric Powered Wheelchair Driving Strategies Over Difficult Outdoor Terrain: A Focus Group Study, Proceedings of the Rehabilitation Engineering and Assistive Technology Society of North America Conference, CD-Rom, June 23-27, 2009. (oral presentation)
82. **Wang H**, Koontz AM, Collinger JL, Boninger ML, (2008). Influence of Gripping Moments during Wheelchair Propulsion on Natural Surfaces, Proceedings of the Annual RESNA Conference, Arlington VA, CD-ROM, June 26-30, 2008 (Best paper winner)
83. Salatin B, **Wang H**, Grindle GG, Cooper RA, (2008). Quantifying Forward Tipping Characteristics of a Front Wheel Drive Electric Powered Wheelchair, Proceedings of the Annual RESNA Conference, Arlington VA, CD-ROM, June 26-30, 2008. (oral presentation)
84. Mahajan H, Dicianno BE, Gordon AT, Cooper RA, **Wang H**, Sibenaller S, (2008). A Control Algorithm to Improve Target Tracking in Individuals with and without Cerebral Palsy, Proceedings of the Annual RESNA Conference, Arlington VA, CD-ROM, June 26-30, 2008.
85. Salatin B, Grindle GG, **Wang H**, Cooper RA, The Design of a Smart Controller for Electric Powered Wheelchairs, Proceedings of the IASTED International Conference on Assistive Technologies, pp. 133-138, Baltimore, MD, April 16-18, 2008.
86. Coyle E, Collins EG, DuPont E, Ding D, **Wang H**, Cooper RA, Grindle GG, (2008). Vibration-Based Terrain Classification for Electric Powered Wheelchairs, Proceedings of the IASTED International Conference on Assistive Technologies, pp. 139-144, Baltimore, MD, April 16-18, 2008.
87. **Wang H**, Grindle GG, Connor S, Cooper RA, (2007). An Experimental Method for Measuring the Moment of Inertia of an Electric Power Wheelchair, International Conference of the IEEE-EMBS, Lyon, France, August 23-26, 2007.
88. Cooper RA, Ding D, Grindle GG, **Wang H**, (2007). Personal Mobility and Manipulation Using Robotics, Artificial Intelligence, and Advanced Control, International Conference of the IEEE-EMBS, Lyon, France, August 23-26, 2007.
89. **Wang H**, Yan N, Wang J. (2005). A Novel Design of Automatic Page Turner, "International Forum on Rehabilitation' 2005" and "The 6th Chinese Symposium of Rehabilitation Medical Engineering and Rehabilitation Engineering", pp: 52-54, Xi'an, China, August 25, 2005.

d. Invited Presentations

International

1. **Wang H**. (2019). Focal Vibration for Neurorehabilitation. International Forum for HUASHAN Scholars, IFHS2019, Xi'an, China; September 4-8, 2019.
2. **Wang H**. (2016). State of the Art of Wheelchair Technology. Invited Presentation at the 2016 Asian Pacific Region Seating Symposium (APRSS), Xi'an, China; October 12-13, 2016.
3. **Wang H**. (2014). Importance of an Outcomes Management System for Mobility: A Consumer Centered Model. Invited Presentation at the 2014 Asian Pacific Region Seating Symposium (APRSS), Xi'an, China; May 19, 2014.

National/Local

1. **Wang H.** (2021) Wearable Focal Muscle Vibration on Gait and Mobility in Diabetic Peripheral Neuropathy. Department of Health and Exercise Science Research Seminar. Norman, Oklahoma; March 19, 2021
2. **Wang H.** (2020) Activity Classification of Wheelchair Users Using Machine Learning Techniques. Invited presentation at the Artificial Intelligence and Machine Learning at OU-HSC Mini-Symposium 2020. Oklahoma City, OK; February 14, 2020
3. **Wang H.** (2019) Wearable Focal Vibration on Mobility and Functional Rehabilitation. Collaboration to Cure! OU-OUHSC Biomedical Symposium. Oklahoma City, OK; March 29, 2019.
4. **Wang H,** Ding D, Cooper RA (2017). Assistive Robotics for Manipulator. Invited lectureship at the International Seating Symposium (ISS) 33rd Annual Symposium, Nashville, TN; March 2-4, 2017.
5. **Wang H** (2015). Development and Evaluation of a Terrain Dependent Electrical Powered Wheelchair Driver Assistance System. Invited lectureship at the International Seating Symposium (ISS) 31st Annual Symposium, Nashville, TN; February 26-28, 2015.
6. **Wang H** (2013). Power Wheelchair Driving Outdoors: Problems and Strategies Identified by Users, and Potential Solutions. Invited lectureship at the International Seating Symposium (ISS) 29th Annual Symposium, Nashville, TN; March 7-9, 2013.
7. **Wang H** (2012). QoLTBots. Invited lectureship at the State of Science Symposium, Walter Reed National Military Center, Bethesda, MD; September 21, 2012.

VI. TEACHING:

a. Class

2017-2021 *University of Oklahoma Health Sciences Center
Department of Rehabilitation Sciences*

Courses:

OCTH7712 - Research in Occupation I (Fall 2017-2019, Summer 2020)
(~30 MOT students)

RS8233 - Rehabilitation Sciences II (Fall 2017, Spring 2019-2020) (11
DSC students, 1 PhD student in Fall 2017; 3 DSC students in Spring
2019; 7 DSC, 3 PhD students in Spring 2020)

RS5483- Topics in Assistive Technology (Summer 2018, 11 DSC
students)

OCTH/PHTH 8292 - Introduction to Assistive Technology (Spring 2019-
2020) (~90 MOT/DPT students)

OCTH/PHTH 7522 – Selective Course: Advanced Topics in
Rehabilitative Technology (Fall 2018) (3 MOT, 5 DPT students)

Guest Lectures:

Wang, H, Technology for Exercise Science: Benchtop to Practices, for
PHTH 8293 Exercise Science II (Spring 2018~2020) (~60 DPT students)

Field Work II Data Collection, for OCTH 7632 Fieldwork Education II
(~30 MOT students)

Wang, H, Inventional Thinking and Patenting, for PHTH 9192
Movement Science II (~60 DPT students)

2016

*University of Pittsburgh
Department of Rehabilitation Science and Technology*

- Courses:
 2015 HRS2708 - The Individual, Social and Culture Experience of Disability
University of Pittsburgh
Department of Rehabilitation Science
- Courses:
 2013-2016 HRS3709 - Introduction to Rehabilitation Robotics
University of Pittsburgh
Department of Rehabilitation Science/Department of Bioengineering
- Courses:
 2008 HRS2910 - Statistical Applications in Health & Rehabilitation
 BioE2525 - Applied Biostatistics
University of Pittsburgh
School of Health and Rehabilitation Science
- Courses:
 2002-2003 REHSCI1000 - Introduction to Research (Teaching Assistant)
Xi'an Jiaotong University
- Courses:
 Mathematical Modeling
- b. Mentoring
- Internal (Master's or Doctoral Levels)
- 2019-present *Raghuveer Chandrashekar*, University of Oklahoma Health Sciences Center,
 PhD student
 Role: Primary advisor (expected graduation: 2023)
 Title: TBA
- External (Master's or Doctoral Levels)
- 2020-present *Jonathan D. Day*, University of Oklahoma Health Sciences Center, PhD student
 Role: Primary dissertation advisor (expected graduation: 2022)
 Title: Transcutaneous Oxygen Perfusion and Near-Infrared Spectroscopy
 Support Clinical Judgement of Healing after Transtibial Amputation
- 2021-present *Grace Duginski, BS*, University of Oklahoma
 Master of Science in Biomedical Engineering
 Role: Advisor (to be graduated: 2022)
 Title: TBD
- 2021-present *Sivashankar Sivakanthan, MS*, University of Pittsburgh
 PhD in Rehabilitation Science and Technology
 Role: PhD Committee (to be graduated: 2023)
 Title: TBD
- 2021-2021 *Sarah Ridilla, MSPT*, University of Oklahoma Health Sciences Center, DSC
 Role: Thesis committee member (expected graduation: 2021)
 Title: Perceived Pain and Prolonged Stationary Classroom Sitting Posture in
 Adolescents with CP Classified at GMFCS IV and V During Standard
 Classroom Sitting
- 2021-2021 *Alan-Michael Chow, BS*, University of Oklahoma
 MS in Health and Exercise Science
 Role: MS Committee (graduated: 2021)
 Title: Effects of tDCS on Stroke Rehabilitation: A Systematic Review and

- Meta-analysis
- 2020-2021 *Ben Doganiero, MS*, University of Pittsburgh
Master of Science in Rehabilitation Science and Technology
Role: Capstone Mentor
Title: Effect of Neuromuscular Electrical Stimulation in Transtibial Amputees on Quality of Life
- 2020-2021 *Cameron Crowder, MS*, University of Pittsburgh
Master of Science in Rehabilitation Science and Technology
Role: Capstone Mentor
Title: How Intensity of and Compliance with the Neuromuscular Electrical Stimulation Device Impacts Residual Limb Pain of the Transtibial Amputee: A Secondary Analysis
- 2020-2021 *Jenni Burzycki*, University of Oklahoma Health Sciences Center, MOT
Role: Primary mentor (expected graduation: 2022)
Title: Patients satisfaction on wearable focal muscle vibration technology
- 2020-2021 *Bethany Block*, University of Oklahoma Health Sciences Center, DPT
Role: Primary mentor (expected graduation: 2022)
Title: Effectiveness of focal muscle vibration on gait and mobility for patients with diabetic peripheral neuropathy
- 2020-2021 *Matthew Beckner*, University of Oklahoma Health Sciences Center, DPT
Role: Primary mentor (expected graduation: 2022)
Title: Gait analysis in patients with multiple sclerosis before and after focal muscle vibration intervention
- 2019-2021 *Josiah R Rippetoe*, University of Oklahoma Health Sciences Center, PhD student
Role: Primary advisor (expected graduation: 2024) (transferred to other faculty due to resignation)
Title: TBA
- 2019-2020 *Morgan Shuping*, University of Oklahoma Health Sciences Center, MOT
Role: Primary mentor (expected graduation: 2021)
Title: Wearable Vibration Therapy to Improve Gait and Mobility in People with Multiple Sclerosis
- 2019-2020 *Monique Charbonnet, PT*, University of Oklahoma Health Sciences Center, DSC
Role: Co-mentor (expected graduation: 2020)
Title: A Child's Perspective: Experiences of Wheelchair Users in a Low-Resource Setting
- 2019-2019 *Jennifer Moyano, OTR/L*, University of Oklahoma Health Sciences Center, DSC
Role: Co-mentor (graduated: 2019)
Title: Caregiver Perspectives on Modified Ride-On Car Use
- 2019-2019 *Jacklin Pfaff, PT, MPT, CCCE*, University of Oklahoma Health Sciences Center, DSC
Role: Co-mentor (graduated: 2019)
Title: Why do high school students with learning disabilities decline to use assistive technology?
- 2019 Spring *Alex Douglas, Cassie McCoy, Skyler Quine* University of Oklahoma
Role: Advisor for Capstone Design Project
Title: Development of a Walker to Enable Early Walkability of Children

- 2019 Spring Diagnosed with Cerebral Palsy
Josiah Rippetoe, BS, University of Oklahoma
 Bachelor of Science in Biomedical Engineering
 Role: Primary mentor (expected graduation: 2019)
 Title: Quantifying vibration characteristics of focal vibration therapy
- 2018-2021 *Amy Ball, OTR/L*, University of Oklahoma Health Sciences Center, DSC
 Role: Primary mentor
 Title: A checklist of smart home technology application for older adults
- 2018-2020 *Sarah Brown*, University of Oklahoma Health Sciences Center, MOT
 Role: Primary mentor (expected graduation: 2021)
 Title: Effective of focal vibration on gait, mobility and pain in patient with DPN
- 2018-2019 *Madeleine Foote*, University of Oklahoma Health Sciences Center, DPT
 Role: Primary mentor (expected graduation: 2021)
 Title: Effective of focal vibration on gait, mobility and pain in patient with DPN
- 2018-2019 *Lewis Baumgardner*, University of Oklahoma Health Sciences Center, DPT
 Role: Primary mentor (expected graduation: 2020)
 Title: Design and development of a wearable focal vibration device
- 2018 *Sarah Bulloch*, University of Oklahoma Health Sciences Center, MOT
 Role: Primary mentor (graduated: 2019)
 Title: Focal Muscle Vibration for Post-Stroke Rehabilitation: A Systematic Review of Protocols and Outcomes
- 2018 *Courtney Coon*, University of Oklahoma Health Sciences Center, MOT
 Role: Co-mentor (graduated: 2019)
 Title: Whole-Body Vibration Protocol and Outcomes in Post-Stroke Rehabilitation: A Systematic Review
- 2018 Spring *Sara Peterson, CPO, MBA, FAAOP*, University of Pittsburgh
 Master of Science in Prosthetics and Orthotics
 Role: Co-Mentor on PhD committee
 Title: Neuromuscular Electrical Stimulation Use in Transtibial Amputations: A Pilot Study
- 2017-2018 *Donna Stauter, OTR/L*, University of Oklahoma Health Sciences Center, DSC
 Role: Co-mentor (graduated: 2018)
 Title: Assistive Technology for Literacy in Children with Physical Disabilities: A Systematic Review
- 2017 Fall *Jorge Candiotti*, University of Pittsburgh
 PhD in Rehabilitation Science
 Role: Co-Mentor on PhD committee
 Title: Design, Development, and Usability Evaluation of Control Algorithms for a Mobility Enhancement Robotic Wheelchair
- 2016-2020 *Brandon Daveler, MS*, University of Pittsburgh
 Master of Science in Rehabilitation Science and Technology
 Role: Co-Mentor on PhD committee
 Title: Pneumatic Powered Mobility Devices in Long-Term Care Facilities: A Pilot Study

VII. SERVICE:

a. Department/College

2020-2021	Co-Director, Department of Rehabilitation Sciences Diversity Equity and Inclusion Committee
2019-2021	PhD program Director, Department of Rehabilitation Sciences, OUHSC
2017-2021	DSC Program Committee Department of Rehabilitation Sciences, OUHSC
2017-2021	Research Committee College of Allied Health, OUHSC
2017-2019	PhD Faculty Committee Department of Rehabilitation Sciences, OUHSC
2018-2020	College of Allied Health Faculty Board, OUHSC

b. University

2021-2024	OUHSC Graduate Council
2017-2021	Member, OUHSC Interprofessional Education <ul style="list-style-type: none"> •Participation in the campus community as an “IEPA OU Interprofessional Associate.” •Faculty Development Training, IEPA Education Session, February 7, 2018. 2 hours. •Student Learning Facilitation, All Professions Day 2, March 2, 2018. Each session facilitated is 2 hours. <i>Member</i> , Harold Hamm Diabetes Center, University of Oklahoma Health Sciences Center <i>Member</i> , Stephenson Cancer Center, University of Oklahoma Health Sciences Center <i>Member</i> , Institute for Biomedical Engineering, Science and Technology (IBEST), University of Oklahoma
2017-2018	Planning Committee, PHF Symposium, OUHSC

c. National

2021	DoD 2021 Peer Reviewed Medical Research Program (PRMRP) FPA Peripheral Neuropathy Panel
2020	NRI 2.0, National Science Foundation, NRI Proposal Review: Motion and Cognition 2
2020	NIDILRR DRRP on Assistive Technology to Promote Independence and Community Living Peer Review Panel
2016-Present	NIDILLR SBIR Phase I and II Review Panel
2018-Present	Scientific Review Group: Paralyzed Veterans of American Foundation
2020-Present	<i>Review Board</i> , Biosensors
2020-Present	<i>Review Board</i> , Journal of Low Power Electronics and Applications
2019-Present	<i>Review Board</i> , Sustainability
2015-Present	<i>Review Board</i> , Disability and Rehabilitation: Assistive Technology
2012-Present	Ad-hoc reviewer: Applied Science, International Journal of Environmental Research and Public Health, The Journal of Spinal Cord Medicine; Topics in Spinal Cord Injury Rehabilitation; Journal of Assistive Technology; Sensors; Computers; Journal of Medical Devices; ASME Journal of Rehabilitation and

- Research Development (JRRD); Journal of Mechanics in Medicine and Biology (JMMB); Journal of Medical and Biological Engineering; IEEE Transactions on Biomedical Engineering (TBME); IEEE Access; IEEE Transactions on Neural Systems and Rehabilitation Engineering (TNSRE); IEEE Transactions on Control Systems Technology (TCST); Canadian Journal of Occupational Therapy; Biomedical Signal Processing and Control (BSPC); Medical Engineering & Physics (MEP); Applied Ergonomics; Archives of Physical Medicine and Rehabilitation; Disability and Rehabilitation; Engineering Science and Technology, an International Journal; Journal of Control and Systems Engineering
Reviewer, BMES 2018; IEEE/RSJ International Conference on Intelligent Robots and Systems, 2017; 25th IEEE International Symposium on Robot and Human Interactive Communication, 2016;
- 2017 Grant Review panel: National Science Foundation, Partnerships for Innovation: Building Innovation Capacity PFI:BIC - Services For The Disabled and Elderly Panel
- 2014 Scientific Review Group: Paralyzed Veterans of American Foundation
 Post-doc Fellowship Grant

d. Professional Societies and Organizations:

- 2012-Present Member: American Congress of Rehabilitation Medicine
 2007-Present Member: Rehabilitation Engineering and Assistive Technology Society of North America

e. Other Activities:

1. Rippetoe J*, **Wang H**, 2020 National Science Foundation (NSF) Graduate Research Fellowship Program (GRFP) competition Honorable Mention.
<https://www.research.gov/grfp/AwardeeList.do>
2. **Wang H**, Research Update: Creating Assistive Technology, PN, pp. 38-39, Vol. 67, No. 5, May 2013. (PN is a magazine published by Paralyzed Veterans of America)
3. Lain M, **Wang H**, Research Update: Adaptive Wheelchairs, PN, pp. 13, Vol. 66, No. 6, June 2012.
4. **Wang H**. (2012). Robots helping to improve lives. Short interview and video in *YNN*, and *NY'I*, February 2, 2012. (YNN is the brand for Time Warner Cable's 24-hour cable news television)
5. Cooper RA, **Wang H**, Grindle G (2010), PerMMA. Highlighted in *Popular Science*, July 12, 2010.
6. Cooper RA, **Wang H**, Grindle G, Salatin B, Vazquez JJ (2009). Paralympian Uses Tech to Help People with Disabilities. Short article in *Livescience*, September 9, 2009.
7. **Wang H**. (2008). Helping People with Disabilities Help Themselves. Short article in *FACETS* Fall/Winter 2008. (FACETS magazine serves as the communications piece for the School of Health and Rehabilitation Sciences. It is published twice a year and is distributed to SHRS alumni, faculty, staff, donors and friends)