

Yi-Ting Tzen, PhD

Curriculum Vitae

September 2026

Department of Applied Clinical Research
School of Health Professions
UT Southwestern Medical Center
Email: Yi-Ting.Tzen@UTSouthwestern.edu

EMPLOYMENT

2019-present	Assistant Professor Department of Applied Clinical Research Department of Physical Medicine and Rehabilitation (secondary) Department of Orthopedic Surgery (secondary) UT Southwestern Medical Center
2025-present	Associate Program Director, Applied Clinical Research Ph.D. Program UT Southwestern Medical Center
2014-2019	Assistant Professor Department of Physical Therapy University of Illinois at Chicago

EDUCATION

2011-2014	Post-doctoral Associate, University of Pittsburgh
2010	Ph.D., Rehabilitation Science, University of Pittsburgh
2008	M.S., Rehabilitation Science & Technology, University of Pittsburgh
2005	B.S., Physical Therapy, National Taiwan University

CERTIFICATION/CREDENTIAL

2025	Association of College and University Educators (ACUE) Effective Teaching Practice Framework Teaching Certificate
2024	Educator Development at UTSW Certificate, UTSW
2006	Rehabilitation Technology, University of Pittsburgh

GRANTS

- 1. Novel shoulder muscle quality measures to guide just-in-time perioperative strategies of reverse shoulder arthroplasty**
Role: Principal investigator Amount: \$100 k
Funding period: 2026-2027
Funding Agency: Trauma Research and Combat Casualty Care Collaborative – An initiative of the University of Texas System
- 2. Utilizing dietician-guided intervention to combat neurogenic obesity in people with spinal cord injury**
Role: co-Principal investigator Amount: \$50 k
Funding period: 2025-2027
Funding Agency: UT Southwestern Nutrition and Obesity Research Center Pilot & Feasibility Grant
- 3. Adaptive spinal board overlay for pressure injury prevention and vibration reduction during long-range aeromedical evacuations**
Role: co-investigator (PI: Muthu Wijesundara) Amount: \$450 k
Funding period: 2024-2025
Funding Agency: Trauma Research and Combat Casualty Care Collaborative – An initiative of the University of Texas System
- 4. Novel shear wave elastography based radiomics for early detection and monitoring of spinal cord injury-induced heterotopic ossification**
Role: Principal investigator (co-investigator 2024-2025) Amount: \$200 k
Funding period: 2024-2027
Funding Agency: Paralyzed Veterans of America Research Foundation (#3201)
- 5. Prognostic factors for the development of imaging-derived rotator cuff myosteatosis: a pilot study**
Role: co-Principal investigator Amount: \$20 k
Funding period: 2022-2024
Funding Agency: UT Southwestern School of Health Professions Interdisciplinary Research Grant Program
- 6. Pressure ulcer modifiable risk identification using blood flow marker and metabolic biomarkers in people with SCI.**
Role: Principal investigator Amount: \$150 k
Funding period: 2021-2023
Funding Agency: Paralyzed Veterans of America Research Foundation (#3180)
- 7. Effect of alternating pressure overlay on weight bearing tissue tolerance in people with SCI.**
Role: Principal investigator Amount: \$49 k
Funding period: 2017-2019

Funding Agency: Dabir Surface Inc.

8. **Effectiveness of single-legged ergometer exercise on diabetic foot ulcer healing.**
Role: Principal investigator Amount: \$20 k
Funding period: 2016-2017
Funding Agency: UIC College of Applied Health Sciences Interdisciplinary Pilot Grant
9. **Perfusion biomarkers for ulcer risk assessment in SCI**
Role: Principal investigator Amount: \$5 k
Funding period: 2015-2017
Funding Agency: National Pressure Injury Advisory Panel
10. **Implementing local cooling on pressure ulcer prevention in people with spinal cord injury**
Role: Principal investigator Amount: \$100 k
Funding period: 2013-2015
Funding Agency: Paralyzed Veterans of America Research Foundation (#2905)
11. **Rehabilitation Engineering and Research Center on Spinal Cord Injury**
Role: Co-investigator (PI: David Brienza) Amount: \$4.75 M
Funding period: 2007-2013
Funding Agency: National Institute of Disability and Rehabilitation Research
(#H133E070024)
12. **Estimating the relative effects of pressure, shear, and temperature on skin tissue stress as measured by reactive hyperemia.**
Role: Co-investigator (PI: David Brienza) Amount: \$150 k
Funding period: 2010-2012
Funding Agency: Hill-Rom Corp.

PEER REVIEWED PUBLICATIONS

1. Erel V, Palomino A, **Tzen YT**, Lavery LA, Wukich D, Wijesundaara M (2026). Design and evaluation of a custom contoured pneumatic insole for active plantar pressure offloading. *Journal of Rehabilitation and Assistive Technologies*.13.doi:10.1177/20556683261488849.
2. Champagne PT*, **Tzen YT**, Sadasivuni S*, Wang J, Bryarly J, Roaten K, Kowalske K (2026). Predictors of Anxiety, Mental and Physical Health Related Quality of Life at One Year and Two Years after Injury in Adult Burn Survivors – A Burn Model System National Database Study. *J Burn Care Res*. irag135. doi: 10.1093/jbcr/irag135.
3. **Tzen YT**, Delmore B, Bogie K, Sonenblum SE, Newton D, Vargo D, Ronin J, Hester A, Gillespie C, Tescher A, Iyer V, Brienza DM (2025). State-of-the-art review of current technology in pressure injury early detection. *Advances in Skin and Wound Care*. doi: 10.1097/ASW0000000000000358. [ePub ahead of print]
4. Kumar S, Gujja PK, Kongara S, **Tzen YT**, Wijesundara MB (2025). Smart seat cushion mobile application with on-device posture prediction using TensorFlow Lite. *Disability and Rehabilitation: Assistive Technology*, *in press*. doi:10.1080/17483107.2025.2522784.
5. Erel V, Palomino A, Jamieson A, Singh I, Kumar S, **Tzen YT**, Wijesundara M (2025). Development of an adaptive spine board overlay for interface pressure reduction during long-range aeromedical evacuation: implication for pressure injury prevention. *Journal of Rehabilitation and Assistive Technologies*, 12: 20556683251349108. doi: 10.1177/20556683251349108.
6. **Tzen YT**, Champagne PT*, Wang J, Klakeel M, Tan WH, Bogie KM, Koh TJ (2025). Markers for pressure injury risk in people with chronic spinal cord injury: a pilot study. *Advances in Skin and Wound Care*, 38(2):E12-E17. doi: 10.1097/ASW.0000000000000253.
7. Pierson C*, Wilson R, Brewer-Mixon K, **Tzen YT**, Williamson J, Hansen K, Hisel T, Jain N (2024). Pressure pain sensitivity is independent of structural pathology in patients with subacromial pain syndrome: a cross-sectional analysis. *Pain Medicine*. doi: 10.1093/pm/pnae123. [ePub ahead of print]
8. Lima NS*, **Tzen YT**, Clifford PS (2024). Spectral changes in skin blood flow during pressure manipulations or sympathetic stimulation. *Experimental Physiology*, 109(6):892-8. doi: 10.1113/EP091706.
9. Nasr AJ*, Harris J, Wang J, Khazzam M, Jain N, **Tzen YT**, Lin YS (2024). The use of Dixon magnetic resonance imaging methods for the quantification of rotator cuff fatty infiltration: a systematic review. *Muscles*, 3(2):133-52. doi: 10.3390/muscles3020013.

10. **Tzen YT**, Sambandam S, Delmore B, Wang J, Chu A, Wukich D (2023). Clinical risk factors of perioperative pressure injury in older adult patients with hip fracture. *Advances in Skin and Wound Care*, 36(12):642-650.
11. Champagne PT*, **Tzen YT**, Wang J, Bennett B, Van Beest D, Tan WH (2023). Predictors of one year pressure injury outcomes in hospitalized spinal cord injured Veterans with one stage 3 or 4 pressure injury. *Journal of Spinal Cord Medicine*. 1-7. doi: 10.1080/10790268.2022.2158290. [ePub ahead of print]
12. Nasr AJ*, Pierson CJ*, **Tzen YT**, Khazzam M, Jain NB, Lin YS (2023). Emerging role of quantitative ultrasound-based imaging techniques for characterizing rotator cuff tears: a scoping review. *Diagnostics (Basel)*, 13(12):2011.
13. **Tzen YT**, Champagne PT*, Rao V*, Wang J, Tan WH, Klakeel M, Jain NB, Wukich DK, Koh, TJ (2022). Utilisation of skin blood flow as a precursor for pressure injury development in persons with acute spinal cord injury: a proof of concept. *International Wound Journal*, 19(8):2191-2199. doi: 10.1111/iwj.13829.
14. Van Beest D, Koh S, **Tzen YT**, Wang J, Moore-Matthews D, Kargel JS, Cutrell JB, Bedimo R, Bennett BR, Tan WH (2022). Healthcare utilization and outcomes of spinal cord injured veterans with stage III-IV pressure injuries. *Journal of Spinal Cord Medicine*, 1-9. doi: 10.1080/10790268.2022.2052500 [ePub ahead of print]
15. Krishnan S, Hong I, Grace C, **Tzen YT**, Reistetter T. (2022) Pressure injury on post-stroke admission assessment to skilled nursing facilities: risk factors, management, and impact on rehabilitation. *J Am Med Dir Assoc*, 23(10):1718.e13-1718.e20. Doi: 10.1016/j.jamda.2022.06.025. [ePub ahead of print]
16. **Tzen YT**, Purohit R*, Mei S*, Tan WH (2020). Assessing skin blood flow and interface pressure in patients with spinal cord injury provided an alternating pressure overlay: a cross-sectional study. *Wound Management and Prevention*, 66(3):16-28.
17. **Tzen YT**, Brienza DM, Karg P (2019). Implementing local cooling to increase skin tolerance to ischemia during normal seating in people with spinal cord injury. *Journal of Tissue Viability*, 28,4,173-8.
18. **Tzen YT**, Weinheimer-Haus EM, Corbiere TF, Koh TJ (2018). Increase skin blood flow during low intensity vibration in human participants: analysis of control mechanisms using short-time Fourier transform. *PLoS ONE*, 13(7): e0200247.
19. Krishnan S, Brick R*, Karg PE, **Tzen YT**, Garber SL, Sowa G, Brienza DM (2016). Predictive validity of the spinal cord injury pressure ulcer scale (SCIPUS) in acute care and inpatient rehabilitation following traumatic spinal cord injury. *NeuroRehabilitation*, 38,4,401-9.
20. Lachenbruch C, **Tzen YT**, Brienza DM, Karg PE, Lachenbruch PA (2015). Relative contributions of interface pressure, shear stress, and temperature on ischemic-induced

skin-reactive hyperemia in healthy volunteers: a repeated measures laboratory study. *Ostomy Wound Management*, 61,2,16-25.

21. **Tzen YT**, Brienza DM, Karg P, Loughin P (2013). Effectiveness of local cooling for enhancing tissue ischemia tolerance in people with spinal cord injury. *Journal of Spinal Cord Medicine*, 36,4,357-64.
22. Lachenbruch C, **Tzen YT**, Brienza DM, Karg P, Lachenbruch PA (2013). The relative contribution of interface pressure, shear stress, and temperature on tissue ischemia: a cross-sectional pilot study. *Ostomy Wound Management*, 59,3,25-34.
23. Solovyev A, Mi Q, **Tzen YT**, Breizna DM, Vodovotz Y (2013). Hybrid Equation- / Agent-based model of ischemia-induced hyperemia and pressure ulcer formation predicts greater propensity to ulcerate in subjects with spinal cord injury. *PLoS Comput Biol*, 9,5,e1003070.
24. **Tzen YT**, Brienza DM, Karg P, Loughlin P (2010). Effect of local cooling on sacral skin perfusion response to pressure: implications for pressure ulcer prevention. *Journal of Tissue Viability*,19,3,86-97.

*Indicates trainee or student

CONFERENCE PROCEEDINGS

1. Wei Y*, **Tzen YT**, Wang J, Sandon L, Giacona J, Vongpatanasin W (2025). Evaluating taste perception and acceptance of potassium-enriched salt substitutes among U.S. adults. Proceedings of the 2025 Academy of Nutrition and Dietetics Food & Nutrition Conference & Expo. Nashville, TN.
2. Erel V, Palomino A, Jamieson A, Singh I, Kumar S, **Tzen YT**, Wijesundara M (2025). Development of air-cell-based adaptive spine board overlay for military litters to reduce pressure injury risk during long-range aeromedical evacuations. Proceedings of the 2025 UT System Trauma Research Symposium. Austin, TX.
3. Akhavan A*, **Tzen YT**, Bogie KM (2024). Skin blood flow response to weight bearing in people with acute and chronic spinal cord injuries. Proceedings of the American Congress of Rehabilitation Medicine conference. Dallas, TX: ACRM Press.
4. Sreepad B*, **Tzen YT**, Lin YS (2024). The role of lipids in rotator cuff injuries: a cross-sectional study with plasma lipidomic analysis. Proceedings of the American Congress of Rehabilitation Medicine conference. Dallas, TX: ACRM Press.
5. Champagne PT*, **Tzen YT**, Brew-Mixon K, Tan WH, Mizuno M (2024). Identifying Depression Utilizing the Quick Inventory of Depressive Symptomatology- self Report, Tumor Necrosis Factor- alpha, and Endothelial Function in Spinal Cord Injury. Proceedings of the American Congress of Rehabilitation Medicine conference. Dallas, TX: ACRM Press.
6. Champagne PT*, **Tzen YT**, Brew-Mixon K, Mizuno M, Tan WH (2024). Identifying Depression, Hopelessness, and Affect in Persons with Spinal Cord Injury. Proceedings of the American Congress of Rehabilitation Medicine conference. Dallas, TX: ACRM Press.
7. **Tzen YT**, Sambandam S, Delmore B, Wang J, Wukich D (2023). Clinical risk factors of perioperative pressure injury in older adult patients with hip fracture. 2023 Orthopaedic Research Society Annual Conference. Dallas, TX.
8. Lin Y, Nasr A*, Prabhu K, **Tzen YT**, Khazzam M, Jain NB (2023) Emerging role of quantitative ultrasound-based imaging for characterizing rotator cuff tears: a systematic review. Orthopaedic Research Society Annual Conference. Dallas, TX.
9. **Tzen YT**, Delmore B, Champagne PT*, Sambandam S, Wukich D (2023). Clinical risk factors of partial and full-thickness pressure injuries in older adults with hip fracture. 2023 National Pressure Injury Advisory Panel Annual Conference. San Diego, CA.
10. Lima NS*, **Tzen YT**, Clifford P (2022). Spectral changes in skin blood flow do not reflect pressure manipulations. Experimental Biology 2022 Conference. Philadelphia, PA.

11. Champagne PT*, **Tzen YT**, Wang J, Tan WH (2022). Predictors of one year pressure injury outcomes in hospitalized spinal cord injured veterans. 2022 American Congress of Rehabilitation Medicine Annual Conference. Chicago, IL.
12. Van Beest D, Koh S, **Tzen YT**, Wang J, Kargel J, Cutrell J, Bedimo R, Bennett B, Tan WH (2021). Clinical characteristics of spinal cord injured veterans hospitalized with stage 3 or 4 pressure injuries. National Pressure Injury Advisory Panel Annual Conference. Virtual: NPIAP Press.
13. Krishnan S, Hong I, **Tzen YT**, Couture G, Reistetter T (2020). Characteristics and rehabilitation utilization of preexisting superficial and deep pressure injury among stroke elderly admitted to skilled nursing facilities. National Pressure Injury Advisory Panel Annual Conference. Houston, TX: NPIAP Press.
14. **Tzen YT**, Purohit RM*, Mei S* (2019). Using alternating pressure overlay as a ischemia precondition strategy for pressure ulcer prevention in operation room: a pilot study. Proceedings of the National Pressure Ulcer Advisory Panel Annual Conference. St Louis, MO: NPUAP Press.
15. Purohit RM*, Mei S*, **Tzen YT** (2019). Effectiveness of alternating pressure overlay on skin blood flow and interface pressure in people with spinal cord injury. Proceedings of the Wound Ostomy and Continence Nurses Society Annual Conference. Nashville TN: WOCN Press.
16. **Tzen YT**, Kataria A, Rao V*, Joseph K, Lee R, Dysico G (2018). Microcirculatory biomarker for pressure injury risk in acute spinal cord injury (SCI) patients. Proceedings of the National Pressure Ulcer Advisory Panel Annual Conference. Las Vegas, NV: NPUAP Press.
17. Purohit RM*, Mei S*, Kataria A, **Tzen YT** (2018). Assessing alternating pressure overlay on skin blood flow and interface pressure: a feasibility study on people with spinal cord injury (SCI). Proceedings of the National Pressure Ulcer Advisory Panel Annual Conference. Las Vegas, NV: NPUAP Press.
18. Rao V*, **Tzen YT** (2017). The relationship between microcirculation, autonomic function and sacral pressure injury history in people with chronic spinal cord injury. Proceedings of the National Pressure Ulcer Advisory Panel Biennial Conference. New Orleans, LA: NPUAP Press.
19. **Tzen YT**, Brienza DM, Karg PE (2016). Positive effects of local cooling on ischial skin ischemia during normal seating in people with SCI. Proceedings of the American Congress of Rehabilitation Medicine conference. Chicago, IL: ACRM Press.
20. **Tzen YT**, Weinheimer-Haus E, Corbierre T, Koh T (2016). Effectiveness of low intensity vibration on skin blood flow response: implication for wound healing.

Proceedings of the American Congress of Rehabilitation Medicine conference. Chicago, IL: ACRM Press.

21. **Tzen YT**, Brienza DM, Karg PE (2015). Implementing temperature control on support surface: a real-world seating test protocol on people with spinal cord injury. Proceedings of the National Pressure Ulcer Advisory Panel Biennial Conference. Orlando, FL: NPUAP Press.
22. Lachenbruch C, **Tzen YT**, Brienza DM, Karg PE, Lachenbruch PA (2013). *Relative effect of pressure, temperature, shear on non-damaging tissue ischemia*. Proceedings of the International Seating Symposium. Nashville, TN: ISS Press.
23. **Tzen YT**, Brienza DM, Lachenbruch C, Karg PE (2012). *Relative contribution of pressure, temperature and shear force on ischemia induced skin blood flow response*. Proceedings of the European Pressure Ulcer Advisory Panel Focus Meeting. Tel Aviv, Israel: EPUAP Press.
24. **Tzen YT**, Brienza DM, Karg PE, Loughlin PJ, Geyer MJ (2011). *Effectiveness of local cooling on enhancing tissue ischemia tolerance in people with spinal cord injury*. Proceedings of the National Pressure Ulcer Advisory Panel Biennial Conference. Las Vegas, NV: NPUAP Press.
25. **Tzen YT**, Brienza, DM, Karg PE (2011). *Effects of sensation and autonomic function on reactive hyperemia following pressure with and without cooling in people with spinal cord injury*. International Conference of Spinal Cord Medicine and Rehabilitation. Washington, DC: ISCoS/ASIA Press.
26. **Tzen YT**, Brienza DM, Karg PE, Loughlin PJ, Geyer MJ (2010). *Effectiveness of local fast and slow cooling on pressure induced reactive hyperemia (RH) in adult human participants*. Proceedings of the RESNA 33rd International Conference on Technology and Disability. Las Vegas, NV: RESNA Press.
27. **Tzen YT**, Jan YK, Porach EA, Karg PE, Brienza DM (2009). *Effects of local cooling on sacral skin perfusion response to pressure: implications for pressure ulcer prevention*. Proceedings of the National Pressure Ulcer Advisory Panel Biennial Conference. Washington, DC: NPUAP Press.
28. **Tzen YT**, Loughlin PJ, Brienza DM (2009). *Analyzing the mechanisms of local cooling on pressure induced reactive hyperemia by applying short-time Fourier transform (STFT)*. Proceedings of the RESNA 32nd International Conference on Technology and Disability. New Orleans, LA: RESNA Press.
29. Glauser K, **Tzen YT**, Brienza DM (2009). *Pressure ulcer prevention: examining the relative effects of pressure, shear force, and skin temperature*. Proceedings of the University of Pittsburgh Science 2009 Annual Conference. Pittsburgh, PA.

30. **Tzen YT**, Jan YK, Brienza DM (2008). *Development of a system to study the effect of local cooling on skin blood flow response to interface pressure*. Proceedings of the RESNA 31st International Conference on Technology and Disability. Washington, DC: RESNA Press.

*Indicates trainee or student

PATENT

1. Brienza DM, Karg PE, Smeresky, D, **Tzen YT**. Temperature regulating footwear. (US20180295930A1, WO2017062636A1)

HONORS AND AWARDS

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| 2026 | Winner, Janet Cuddigan Research Award, National Pressure Injury Advisory Panel |
| 2024 | Inducted into the National Honor Society for the Allied Health Professions – Alpha Eta Society UT Southwestern School of Health Professions Chapter |
| 2023 | Research Recognition Award, UT Southwestern School of Health Professions |
| 2022 | Department of Applied Clinical Research Outstanding Mentor Award, UT Southwestern School of Health professions |
| 2014 | Advanced Rehabilitation Research Training Fellowship, National Institute on Disability and Rehabilitation Research training program at University of Pittsburgh |
| 2013 | McGowan Institute for Regenerative Medicine Publication of the month with Dr. A Solovey, Dr. Q Mi, Dr. Y Vodovotz, and Dr. DM Brienza |
| 2011 | Winner, Roberta Abruzzese Award, National Pressure Ulcer Advisory Panel (NPUAP) |
| 2011 | Honorable Mention, New Investigator Poster Award, NPUAP Biennial Conference |
| 2010 | Winner, Student Scientific Paper Competition, Rehabilitation Engineering and Assistive Technology Society of North America (RESNA) Annual Conference |
| 2010 | First runner-up, Interprofessional Student Competition with Becky Faett, Diana Ross, and Gijsberta van Londen, University of Pittsburgh |
| 2009 | First place, Graduate Student Elevator Pitch Competition with Matthew Lee, Quality of Life Technology Center, University of Pittsburgh/Carnegie Mellon University |
| 2009 | Poster presentation finalist, NPUAP Biennial Conference |
| 2005 | Academic Award, National Taiwan University |

INVITED LECTURES/WORKSHOPS/PODIUM PRESENTATIONS/WEBINARS

- 2026 Preventing clinician burnout: navigating work life balance. National Pressure Injury Advisory Panel Annual Conference, February 27.
- 2026 Review of the literature on technological advances for detection. National Pressure Injury Advisory Panel Annual Conference, February 26.
- 2026 Utilizing dietician-guided intervention to combat neurogenic obesity in people with spinal cord injury. UT Southwestern Nutrition Obesity Research Center Symposium, February 26.
- 2026 Writing for publication, National Pressure Injury Advisory Panel Annual Conference, February 25.
- 2025 Overview: pressure injury screening tool options. National Pressure Injury Advisory Panel Fall Conference. Virtual, November 13-14.
- 2025 Markers for pressure injury risk in individuals with chronic spinal cord injury: a pilot study. VA Medical Center San Diego Specialty Care Access Network-Extension for Community Healthcare Outcomes (SCAN-ECHO) meeting for SCI. Virtual, April 24.
- 2025 Integrating the 2025 guidelines into practice for spinal cord injured patients. National Pressure Injury Advisory Panel Annual Conference, February 26.
- 2025 NPIAP Emerging leaders presentation. National Pressure Injury Advisory Panel Annual Conference, February 26.
- 2024 Emerging early detection measurements for secondary complications in soft tissues after spinal cord injury. American Congress of Rehabilitation Medicine Annual Conference, November 1.
- 2024 Insulin resistance index for pressure injury risk in people with chronic spinal cord injury. Paralyzed Veterans of America Summit + Expo, August 28.
- 2024 Pressure injury management in the spinal cord injury population: incorporating technology into clinical practice. UT Arlington Research Institute (UTARI) Seminar, July 19.
- 2024 Pressure injuries in the spinal cord injury population: current evidence in risk assessment, prevention and early detection. National Pressure Injury Advisory Panel Webinar, June 18.
- 2024 Pressure injury early identification and prevention in the spinal cord injury population – approaching from within. UT Arlington College of Nursing and Health Innovation Clinical Translational Research Forum, March 6.

- 2024 Building the future: emerging leaders update. National Pressure Injury Advisory Panel Annual Conference, February 17.
- 2024 Rotator cuff myosteatosis: a multimodal musculoskeletal imaging study. Capra Interdisciplinary Healthcare Symposium, UT Southwestern Medical Center, February 14.
- 2023 Markers for pressure injury in patients with spinal cord injuries. National Pressure Injury Advisory Panel Annual Conference, March 17.
- 2022 NPIAP Emerging Leader Task Force Initiative. National Pressure Injury Advisory Panel Annual Conference, March 18.
- 2022 Pressure injuries in spinal cord injury population. National Pressure Injury Advisory Panel [Podcast](#) on RN Huddle, University of Nebraska Medical Center. Feb 3.
- 2020 Rehabilitation technology for pressure injury prevention. Capra Interdisciplinary Healthcare Symposium, UT Southwestern Medical Center, February 12.
- 2019 Pressure injury risk assessment and prevention: a microcirculatory approach. Department of Physical Medicine & Rehabilitation Grand Rounds Lecture, UT Southwestern Medical Center, December 6.
- 2019 Effectiveness of alternating pressure overlay on skin blood flow and interface pressure in people with spinal cord injury. Wound Ostomy and Continence Nurses Society Annual Conference, June 26.
- 2016 Microcirculatory approach to chronic wound prevention and healing. Center for Wound Healing and Tissue Regeneration, College of Dentistry, University of Illinois at Chicago, December 8.
- 2016 Chronic wound prevention, early detection, and healing: current strategies and challenges. Department of Physical Therapy Seminar, University of Illinois at Chicago, November 17.
- 2014 Integumentary Management: from Bench to Bedside. School and Institute of Physical Therapy, National Taiwan University, Dec 31.
- 2014 Pressure ulcer research – a multidisciplinary team approach. Integrative Physiology Laboratory Seminar, University of Illinois at Chicago, September 12.
- 2013 Relative effect of pressure, temperature, shear on non-damaging tissue ischemia. International Seating Symposium Annual Conference, March 5-9.
- 2012 Assistive Technology and Rehabilitation Engineering Design Workshop. School and Institute of Physical Therapy, National Taiwan University, Dec 24.

- 2011 Effects of sensation and autonomic function on reactive hyperemia following pressure with and without cooling in people with spinal cord injury. ISCoS/ASIA Annual Conference, June 4-8.
- 2011 Pressure ulcer research at University of Pittsburgh: application of local cooling and signal processing. School and Institute of Physical Therapy, National Taiwan University, May 9.
- 2011 Effectiveness of local cooling on enhancing tissue ischemia tolerance in people with spinal cord injury. NPUAP Biennial Conference, Feb 25-26.
- 2010 Effectiveness of local fast and slow cooling on pressure induced reactive hyperemia in adult human participants. RESNA Annual Conference, June 26-30.
- 2009 Analyzing the mechanisms of local cooling on pressure induced reactive hyperemia by applying short-time Fourier transform. RESNA Annual Conference, June 23-27.
- 2008 Effects of local cooling on skin perfusion response to pressure: implications to pressure ulcer prevention. School and Institute of Physical Therapy, National Taiwan University, Dec 30.
- 2008 Development of a system to study the effect of local cooling on skin blood flow response to interface pressure. RESNA Annual Conference, June 26-30.
- 2007 Assistive Technology: from Practice to Research – Experience at U. Pitt. School and Institute of Physical Therapy, National Taiwan University, May 30.

TEACHING EXPERIENCE

- 2025-present Laboratory Rotations: Techniques in Applied Clinical Research (ACR 5104, Fall: 1 credits)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2025-present Clinical Research Designs and Methods (ACR 5303, Fall: 3 credits)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2025-present Scientific Communication I (ACR 5114, Spring: 1 credit)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2024 Improving Executive Functioning for Student and Professional Success (Seminar)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2023-present Scientific Communication II (ACR 5115, Fall: 1 credit)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2023-present Grant Writing II (ACR 5102, Summer: 1 credit)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2023-present Grant Writing I (ACR 5101, Spring: 1 credit)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2023-present Introduction to Clinical Research (MPO 5230H, Spring, guest lecture on Research Ethics and Compliance)
Master of Prosthetics-Orthotics Program, UT Southwestern Medical Center
- 2023-present Integumentary System Patient/Client Management (DPT 5138, Spring, guest lectures on Wound Interventions)
Department of Physical Therapy, UT Southwestern medical Center
- 2020-present Research Practicum (ACR 5094, Spring: 3 credits, Summer: 2 credits)
Department of Applied Clinical Research, UT Southwestern Medical Center
- 2020-2020 Integumentary Physical Therapy (PT 4046/408, 2 credits)
School of Physical Therapy, National Taiwan University
- 2014-2018 Applied Pathophysiology (PT636, 4 credits)
Department of Physical Therapy, University of Illinois at Chicago

- 2015-2018 Instrumentation for rehabilitation sciences research (PT573, 3 credits)
Department of Physical Therapy, University of Illinois at Chicago
- 2015 Science in Practice I (PT629, 3 credits)
Department of Physical Therapy, University of Illinois at Chicago
- 2014 Research Methodology (HRS 2901, 3 credits)
Department of Rehabilitation Science and Technology, University of Pittsburgh
- 2011 Rehabilitation Engineering Design (HRS 2703, 3 credits)
Department of Rehabilitation Science and Technology, University of Pittsburgh

STUDENT ADVISING/MENTORING

Dissertation/Thesis Committee Chair/Mentor

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|-------------------|--|
| Shanta Saha | PhD Dissertation (Mentor) 2026-present, UT Southwestern Medical Center |
| Michelle King | PhD Dissertation (Committee Chair) 2026-present, UT Southwestern Medical Center |
| Robyn Wei | PhD Dissertation (Committee Chair) 2025-present, UT Southwestern Medical Center |
| Jan Petric | PhD Dissertation 2025 (Committee Chair) UT Southwestern Medical Center |
| Chris Pierson | PhD Dissertation 2024 (co-Mentor), UT Southwestern Medical Center |
| Tasha Champagne | PhD Dissertation 2023 (Mentor), UT Southwestern Medical Center
Champagne was a Student Abstract Competition Finalist of the Capra Interdisciplinary Symposium |
| Ophelie Puissegur | PhD Dissertation 2023 (Committee Chair), UT Southwestern Medical Center |
| Rudri Purohit | MS Thesis 2019 (Committee Chair/Mentor), University of Illinois at Chicago
Purohit received Poster Presenter Award at the WOCN 2019 conference |

Varsha Rao MS Thesis 2017 (Committee Chair/Mentor), University of Illinois at Chicago
Rao was awarded Best Student Scientific Paper at the NPIAP 2017 conference

Nkiru Unadike MS Project 2016 (Committee Chair/Mentor), University of Illinois at Chicago

Dissertation/Thesis Committee Member

Andrew Nasr PhD Dissertation 2024, UT Southwestern Medical Center

Novelle Kew PhD Dissertation 2021, UT Southwestern Medical Center

Veronica Haywood PhD Dissertation 2019, University of Illinois at Chicago

Elizabeth Michalczyk PhD Dissertation, 2018, University of Illinois at Chicago

Saleh Alshammari MS Thesis, 2016, University of Illinois at Chicago

Rachelle Brick B.Phil Thesis, 2014, University of Pittsburgh

SERVICE TO PROFESSION

Peer-review Activities

- Journal Editorial Board
 - Frontiers in Physiology (Clinical and Translational Physiology)
 - International Wound Journal
- Ad hoc journal reviewer
 - Archives of Physical Medicine and Rehabilitation
 - Journal of Spinal Cord Medicine
 - PLOS ONE
 - PM&R: The Journal of Injury, Function and Rehabilitation
 - Medical Engineering & Physics
 - Assistive Technology
 - Review of Scientific Instruments
 - Journal of Wound Care
 - International Wound Journal
 - Frontiers in Bioengineering and Biotechnology Production
 - Nursing Open
- Grant reviewer
 - Paralyzed Veterans of America Research Foundation (2019, 2021)
 - US Department of Defense CDMRP PRMRP (2020, 2021)
- Ad hoc grant reviewer
 - Physician's services incorporated foundation (2017)
 - US Department of Defense SCIRP (2019, 2021)

Professional Societies

2021-present Board of Director, National Pressure Injury Advisory Panel

- Standards Mission Committee co-chair
- Emerging leader task force chair
- Education Committee member
- Annual conference planning committee member (2022-2026)

2016- 2018 American Congress of Rehabilitation Medicine, Spinal Cord Injury Interdisciplinary Special Interest Group

- Secondary complication task force member
- Women's health task force member

2016- 2016 Taiwan Physical Therapy Association, Collection of Rehabilitation Functional Assessment Tools task force member

OTHER PROFESSIONAL ACTIVITIES

- 2016 **Panel Moderator**, American Congress of Rehabilitation Medicine, Early Career Development Workshop
- 2014 **Mentee**, Association of Specialty Professor Workshop on Wound Repair and Healing in Older Adults, National Institute on Aging
- 2012 **Mentee**, Enhancing Rehabilitation Research in the South Grant Writing Workshop, National Institute of Health