RYAN THOMAS CREWS, PhD, CCRP

Curriculum Vitae

CONTACT INFORMATION

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Contents

EDUCATION	4
INTERNSHIP	4
EMPLOYMENT	4
Advisor / Consultant	5
HONORS AND AWARDS	5
PUBLICATIONS	8
Peer Reviewed Journal Manuscripts	8
Book Chapters	
Professional/Trade Periodicals	
PRESENTATIONS	14
Session Chair	14
Invited Oral Presentations	14
Oral Abstracts (* denotes presenter)	
Poster Abstracts	19
PATENTS	27
PROFESSIONAL ACTIVITIES	27
Journal Editorial Board	27
Journal Guest Editor	27
Journal Ad Hoc Reviewer	27
Expert/Guidelines Reviewer	28
Grant Reviewer	29
Associations	29
Dr. William M. Scholl College of Podiatric Medicine- Service	29
Leadership Roles	29
Committee Member	29
Faculty/Staff Search Committees	30
Rosalind Franklin University of Medicine and Science-Service	e 30
Leadership Roles	30
Committee Member	31
CERTIFICATIONS	31
RESEARCH EXPERIENCE	32
CLEAR 11/04 – Present	32

Grant Funded	32
Industry (Investigator Initiated)	33
Industry (Industry Initiated)	34
University of Massachusetts, 9/02 – 9/04	35
NASA, summer 2001	36
TEACHING EXPERIENCE	36
Rosalind Franklin University of Medicine and Science, 2004-present	36
University of Massachusetts, 9/2002 – 9/2004	36
Truman State University, 9/1998 – 12/2001	36
RESEARCH MENTOR AND GRADUATE DEGREE COMMITTEES	36
PhD Examiner	37
Research Mentor	37

EDUCATION

Doctor of Philosophy, Life Sciences, Manchester Metropolitan University, Manchester, United Kingdom, January 2021

Thesis: Monitoring and Managing the Offloading, Physical Activity Engagement and Fall Risk of Persons with Diabetic Foot Disease

Master of Science, Kinesiology, University of Massachusetts, Amherst, MA, September 2004

Thesis: Use of Motor Imagery as a Countermeasure During Limb Immobilization **Bachelor of Science**, Exercise Science, cum laude, Truman State University, Kirksville, MO, December 2001

INTERNSHIP

NASA's Exercise Physiology Laboratory / National Space Biomedical Research Institute, Houston, Texas, 2001

EMPLOYMENT

Rosalind Franklin University of Medicine and Science Dr. William M. Scholl College of Podiatric Medicine 2004-present		
Associate Professor- Department of Podiatric Medicine and Surgery	2022-present	
Associate Professor- Department of Podiatric Surgery and Applied Biomechanics	2021- 2022	
Assistant Professor- Department of Podiatric Surgery and Applied Biomechanics	2014- 2021	
Instructor- Department Podiatric Surgery and Applied Biomechanics	2008- 2014	
Lecturer- Department of Biomechanics and Orthopedics	2007-2008	
Center for Lower Extremity Ambulatory Research	2004-present	
Clinical Scientist	2004-present	
Operations Manager	2008-2020	
Original Research & Scientific Manager	2004-2008	
Captain James A. Lovell Federal Health Care Center WOC Research Appointment	2016-present	

North Chicago VA Medical Center

WOC Research Appointment

2004

Biotronic 2004

Neurophysiologist

Advisor / Consultant

American Diabetes Association

2018-2020

2004-2011

Advisor- Leadership Team for Foot Care Interest Group

American Limb Preservation Society (ALPS) 2020-present

Founding Delegate 2020 Founding Secretary 2020-2024

International Working Group on the Diabetic Foot (IWGDF)

Offloading Working Group 2021-2023

Pi Healthcare Ltd 2018

Össur Americas, Inc 2013-2015

HONORS AND AWARDS

2nd Place Poster Abstract (Student Category)

Soni S, Polaceck S, Samuelson K, Kiefer C, Rosenblatt NJ, Crews R & Wu S. "Offloading conditions' impact on stability of persons with diabetic peripheral neuropathy." APMA Annual Scientific Meeting (The National), Orlando, FL. July 28-31, 2022

- **Diabetic Foot Expert Designation by Expertscape** (November, 2021)- top 0.2% of scholars writing about the diabetic foot over the past 10 years
- **Leg Ulcer Expert Designation by Expertscape** (November, 2021)- top .2% of global scholars writing about leg ulcers over last 10 years as identified via PubMed-based algorithms
- **Diabetic Angiopathies World Expert Designation by Expertscape** (November, 2021)-top 0.1% of scholars writing about diabetic angiopathies over the past 10 years
- 3rd Place E-Poster Presentations: DFCONline 2020 (Diabetic Foot Conference)
 Crews RT, Samuelson K, Kiefer C & Rosenblatt NJ. "How do offloading devices' design features impact patients' ability to 'hold their ground'?" Diabetic Foot Conference (DFCon) 2020. Los Angeles, CA, October 9-10 (virtual)
- **ADA2020 Virtual Highlights-** Selected to be 1 of 5 faculty interviews conducted for the American Diabetes Association Scientific Sessions' Virtual Highlights, July 2020

Bronze Active Member American Diabetes Association Diabetes Pro Forum 2020

Recognized as an Outstanding Peer Reviewer in 2018 by:

Journal of Biomechanics (IF=2.4)

Recognized as an Outstanding Peer Reviewer in 2017 by the following Elsevier Journals:

Diabetes Research and Clinical Practice (IF=3.6), Archives of Physical Medicine and Rehabilitation (IF=3.3), and Clinical Biomechanics (IF=1.9)

2nd Place Oral Abstract Presentations

Girgis CP, Domijancic R, Mosher E, Yalla SV, Wu SC & Crews RT. "Evaluation of the Effect of Removable Cast Walkers on Spinal Alignment and Gait." American Podiatric Medical Association's Annual Scientific Meeting, Nashville, TN, July 2017.

American Diabetes Association's Martin Levin Travel Scholarship

Crews RT, Girgis C, Domijancic R, Mosher E & Yalla SV. "Influence of Offloading Induced Limb Length Discrepancies upon Spinal Alignment." American Diabetes Association's 77th Scientific Sessions, San Diego, CA, June 2017.

One of Top 3 Abstracts submitted to 2017 DFCon Poster Competition

Crews RT, Schneider KL, Hwang S, Moxley E, Subramanian V, Aylward L, DiLiberto F & Yalla SV. "Preliminary Findings of Low-cost Interventions to Increase Physical Activity in Adults at Risk for a Diabetic Foot Ulcer." Diabetic Foot Global Conference (DFCon), March 2017.

1st Place Manuscript/Oral Presentation

Waverly BJ, Hshieh S, Crews RT, Jones JM, Weil L, Weil LS, Klein EE & Fleischer AE. "Does Second Metatarsal Length Correlate with Plantar Pressure Measurements Beneath the Second Metatarsophalangeal Joint During Walking?" American College of Foot and Ankle Surgeons (ACFAS) 75th Anniversary Scientific Conference, Las Vegas, NV, March 2017

Co-mentor 1st Place Student Oral Presentation for Dr. William M. Scholl College of Podiatric Medicine at Rosalind Franklin University's All School Research Consortium

Jones JM, Waverly BJ, Hshieh S, Crewst RT, Weil L, Weil L, Klein EE & Fleischer AE. "Does Second Metatarsal Length Correlate with Plantar Pressure Measurements Beeath the Second Metatarsophalageal Joint During Walking?" North Chicago, IL, March 2017.

Co-mentor 3rd Place Oral Presentation by a Medical Student

Ram R, Wilhite B, Steriovski J, Subramanian V, Yalla S, Crews R. "Influence of Removable Cast Walker Strut Height on Functional Performance of Activities of Daily Living by Persons with Diabetes" oral presentation, awarded third place at 48th Midwest Student Biomedical Research Forum, Omaha NE, March, 2017

3rd Place of 2014 American Podiatric Medical Association National Scientific Meeting's Research Studies Poster Competition

Wrobel JS, Fleischer AE, Matzkin-Bridger J, Fascione J, Crews R, Bruning N, Jarrett B. Do Biomechanical Exam Variables Predict Response to Conservative Treatment of Non-Chronic Plantar Fasciitis? American Podiatric Medical Association, The National, Honolulu, HI

Editor's Choice for 2013 Issue 5 of Gerontology

Najafi B, Crews RT & Wrobel JS. (2013) "A Novel Plantar Stimulation Technology For Improving Protective Sensation and Postural Control In Patients With Diabetic Peripheral Neuropathy - A Double-Blinded, Randomized Study." Gerontology. 59(5):473-480. PMID: 23860103

2nd Place of 2013 American Podiatric Medical Association National Scientific Meeting's Oral Abstract Competition

Wrobel JS, Fleischer AE, Crews RT, Jarrett B & Najafi B. (2nd Place winner) "A Randomized Controlled Trial of Custom Foot Orthoses for the Treatment of Plantar Heel Pain: A Return to Spontaneous Physical Activity."

3rd Place of 2012 American Podiatric Medical Association National Scientific Meeting's Research Studies Poster Competition

Crews RT, Smith ST, Liu SB & Wu SC. "Offloading and Vascular Evaluations of Individuals at High Risk for Diabetic Foot Ulcers Cycling with the CLEAR Cleat."

1st Place of 2012 American Podiatric Medical Association National Scientific Meeting's Research Studies Poster Competition

Fleischer A, Albright R, Asfaw T, Andrews, M, Crews R, Wrobel JS. "Sonographic Predictors of Treatment Response in Patients Receiving Mechanical Support for Plantar Fasciitis"

CLEAR Award of Excellence, 2011

2nd Place of 2011 American Podiatric Medical Association National Scientific Meeting's Research Studies Poster Competition

Najafi B, Crews RT & Wrobel JS. Improving Postural Control in Patients with Diabetic Peripheral Neuropathy Using a Novel Plantar Stimulation Technology - A Double-Blinded, Randomized Sham Controlled Study

Co-Mentor for 1st Place of 2011 American Podiatric Medical Association National Scientific Meeting's Student/Resident Abstract Competition

Jessica Minder for Control of Lower Extremity Edema in Persons with Diabetes with Mild Compression Diabetic Socks: A Pilot Study

Mentor for 3rd Place of 2011 American Podiatric Medical Association National Scientific Meeting's Student/Resident Abstract Competition

Fraaz Sayeed for Impact of Removable Cast Walker Height Upon Offloading Capacity and Gait

Mentor for winner of Rosalind Franklin's All School Research Consortium 2011 (Category: Scholl College) Fraaz Sayeed presented "Impact of Strut Height on the Offloading Capacity of Removable Cast Walkers"

CLEAR Award of Excellence, 2009

Dr. William M. Scholl College's 2008 Outstanding Staff Member Award (1st Annual Winner), Illinois Podiatric Medical Student's Association

Award of Excellence, Dr. William M. Scholl College of Podiatric Medicine, 2006

NASA Space Physiology Research Grant, American College of Sports Medicine, 2003

All American Scholar, United States Achievement Academy, 2001

Phi Epsilon Kappa National Scholarship Award, 2000

Dean's List, Truman State University, awarded eight times

President's Honorary Scholarship, Truman State University, 1997-2001

President's Combined Ability Scholarship, Truman State University, 1997-2001

PUBLICATIONS

Peer Reviewed Journal Manuscripts

- 1. Tong KP, Sorrentino E, Garcia A, Jones C, Fahey K, Trivedi A & Crews R. (2022). "Limb Preservation Success Stories from a Student-Led Free Clinic." <u>National Foot</u> & Ankle Review (NFAR). 24: 94-98
- 2. Rosenblatt NH, Young J, Andersen R, Wu SC & Crews RT. (2021) "Diabetes and reactive balance: quantifying stepping thresholds with a simple spring scale to measure fall-risk in ambulatory, older adults." <u>Journal of Diabetes Science and Technology</u>. 15(6): 1352-1360. PMID: 33354995
- 3. Samuelson K, Kiefer C, Wu SC & Crews RT. (2021) "Changing Perspectives: Offloading a Patient with a Diabetic Foot Ulcer as Opposed to Offloading a Diabetic Foot Ulcer." Foot & Ankle Specialist. Aug;14(4):347-351. PMCID: PMC8180528
- Crews RT, Lepow BD, Mills JL, Conte MS, Najafi B, Steinberg JS, Wu SC and Armstrong DG. (2021) "A Limb is a Peninsula- and No Clinician is an Island: Introducing the American Limb Preservation Society (ALPS)." <u>Foot & Ankle Surgery: Techniques, Reports & Cases</u>. March:1 (1). PMCID: PMC8312703 https://doi.org/10.1016/j.fastrc.2021.100005
- 5. Gustav J, van Netten JJ, Lazzarini PA, **Crews RT**, Najafi B & Mueller MJ. (2021) "Should weight-bearing activity be reduced during healing of plantar diabetic foot ulcers, even when using appropriate offloading devices?" <u>Diabetes Research and Clinical Practice</u>. May: 175:108733. PMID: 33713722
- 6. Rosenblatt NJ, Girgis C, Avalos M, Fleischer AE & Crews RT. (2020) "The Role of the Podiatrist in Assessing and Reducing Fall Risk: An Updated Review." Clinics in Podiatric Medicine and Surgery. Apr;37(2):327-369. PMID: 32146988

- 7. Yalla SV, **Crews RT**, Patel NA, Cheung T & Wu S. (2020) "Offloading for the Diabetic Foot: Considerations and Implications." <u>Clinics in Podiatric Medicine and Surgery</u>. Apr;37(2):371-384. PMID:32146989
- 8. Raymond BS, Steriovski J, Gillyard K, Yang C, Wu SC & Crews RT. (2020) "Choosing a vibratory test to pair with Semmes Weinstein Monofilament testing for evaluating diabetic patients' lower extremity sensation: A comparison of three vibratory methodologies." <u>Journal of Diabetes Science and Technology</u>. Jan; 14(1): 8-15. PMID: 31113243
- 9. Lazzarini PA, **Crews RT**, van Netten JJ, Bus SA, Fernando ME, Chadwick PJ & Najafi B. (2019) "Measuring plantar tissue stress in people with diabetic peripheral neuropathy: a critical concept in diabetic foot management." <u>Journal of Diabetes Science and Technology</u>. Sep;13(5):869-880. PMID: 31030546
- 10. Schneider K, **Crews RT**, Subramanian V, Moxley E, Hwang S, DiLiberto FE, Aylward L, Bean J & Yalla S. (2019) "Feasibility of a low intensity, technology-based intervention for increasing physical activity in adults at risk for a diabetic foot ulcer: a mixed methods study." <u>Journal of Diabetes Science and Technology</u>. Sep;13(5):857-868. PMID: 30654641
- 11. **Crews RT** & Candella J. (2018) "Decreasing an offloading device's size and offsetting its imposed limb length discrepancy leads to improved comfort and gait." Diabetes Care. Jul; 41(7):1400-1405. PMCID: PMC6014548
- 12. **Crews RT**, King AL, Yalla SV & Rosenblatt NJ. (2018) "Recent Advances and Future Opportunities to Address Challenges in Offloading Diabetic Feet." <u>Gerontology</u>. June; 64(4): 1-9. PMID: 29402807
- 13. Fleischer AE, Hshieh S, **Crews RT**, Waverly BJ, Jones JM, Klein EE, Weil L Jr, and Weil LS Sr. (2018) "Association between second metatarsal length and forefoot loading under the second metatarsophalangeal joint." <u>Foot & Ankle International</u>. May; 39(5): 560-567.
- 14. Hwang S, VanDeMark C, Dhatt N, Yalla SV & Crews RT. (2018) "Segmenting human trajectory data by movement states while addressing signal loss and signal noise." <u>International Journal of Geographical Information Science</u>. 32(7): 1391-1412.
- 15. **Crews RT**, Smith SR, Ghazizadeh R, Yalla SV & Wu SC. (2017) "Preliminary Evaluation of a Cycling Cleat Designed for Diabetic Foot Ulcers." J Am Podiatr Med Assoc. Nov; 107(6): 475-482. PMCID: PMC5422142
- 16. Vileikyte L, **Crews RT** & Reeves ND. (2017) "Psychological and Biomechanical Aspects of Patient Adaptation to Diabetic Neuropathy and Foot Ulceration." <u>Current Diabetes Reports</u>. Sep 23; 17(11): 109.
- 17. **Crews RT**, Yalla SV, Dhatt N, Burdi D & Hwang S. (2017). "Monitoring Location Specific Physical Activity via Integration of Accelerometry and Geotechnology within Patients with or at-risk of Diabetic Foot Ulcers: A Technological Report." <u>J Diabetes Sci Technol</u>. Sep; 11(5): 899-903. PMID: 27246669

- 18. Wu SC, **Crews RT**, Skratsky M, Overstreet J, Winder M, Ortiz J & Andersen CA. (2017) "Control of Lower Extremity Edema in Patients with Diabetes: A Double Blind RCT Assessing the Efficacy of a Mild Compression Diabetic Sock." <u>Diabetes and Clinical Research</u>. May; 127: 35-43. PMCID: PMC5429175
- 19. **Crews RT**, Shen BJ, Campbell L, Lamont PJ, Hardman M, Boulton AJM, Peyrot M, Kirsner RS & Vileikyte L. (2016) "Response to Comment on Crews et al. Role and Determinants of Adherence to Offloading in Diabetic Foot Ulcer Healing: a Prospective Investigation." <u>Diabetes Care</u>. Dec; 39(12): e222-e223.
- 20. Crews RT, Schneider KL, Yalla SV, Reeves ND & Vileikyte L. (2016) "Physiological and Psychological Challenges of Increasing Physical Activity and Exercise in Patients at Risk of Diabetic Foot Ulcers: A Critical Review." Diabetes/Metabolism Research and Reviews. Nov; 32(8): 791-804. PMID: 27155091
- 21. **Crews RT**, Shen BJ, Campbell L, Lamont PJ, Boulton AJM, Peyrot M, Kirsner RS & Vileikyte L. (2016) "The Role and Determinants of Adherence to Offloading in Diabetic Foot Ulcer Healing: a Prospective Investigation." <u>Diabetes Care</u>. Aug; 39(8):1371-7. PMID: 27271185
- 22. Wrobel JS, Fleischer AE, Matzkin-Bridger J, Fascione J, **Crews RT**, Bruning N & Jarrett B. (2016) "Physical examination variables predict response to conservative treatment of non-chronic plantar fasciitis: Secondary analysis of a randomized placebo controlled footwear study." <u>Physical Medicine and Rehabilitation</u>. 8(5): 436-444. PMCID 4808457.
- 23. Fleischer AE, Albright RH, **Crews RT**, Kelil T & Wrobel JS. (2015) "Prognostic value of diagnostic ultrasound in patients with plantar fasciitis." <u>Journal of</u> Ultrasound in Medicine. Oct; 34(10): 1729-35. doi: 10.7863/ultra.15.14.10062.
- 24. Wrobel JS, Fleischer AE, **Crews RT**, Jarrett B & Najafi B. (2015) "A Randomized Controlled Trial of Custom Foot Orthoses for the Treatment of Plantar Heel Pain: A Return to Spontaneous Physical Activity." <u>JAPMA</u>. Jul; 105(4): 281-294. PMID: 25941995
- 25. Yalla S, Crews RT, Fleischer AE, Grewal G, Ortiz J & Najafi B. (2014) "An immediate effect of custom-made ankle foot orthoses on postural stability in older adults." <u>Clinical Biomechanics</u>. Volume 29, Issue 10, December 2014, Pages 1081-1088, ISSN 0268-0033, http://dx.doi.org/10.1016/j.clinbiomech.2014.10.007.
- 26. Fascione JM, Crews RT & Wrobel JS. (2014) "Association of footprint measurements with plantar kinetics: A linear regression model." <u>JAPMA</u>. March/April; 104(2): 125-133.
- 27. Kelly C, Fleischer A, Yalla S, Grewal GS, Albright R, Berns D, Crews R & Najafi B. (2013) "Fear of falling is prevalent in older adults with Diabetes Mellitus but is unrelated to level of neuropathy." <u>JAPMA</u> 103(6): 480-488.
- 28. Yalla SV, Ortiz J, **Crews RT** & Najafi B. (2013) "Balance improvement in older adults using customized ankle foot orthoses." <u>Footwear Science</u>, 5:sup1, S119-S120, DOI: 10.1080/19424280.2013.799593

- 29. Najafi B, **Crews RT** & Wrobel JS. (2013) "A Novel Plantar Stimulation Technology For Improving Protective Sensation and Postural Control In Patients With Diabetic Peripheral Neuropathy A Double-Blinded, Randomized Study." <u>Gerontology</u>. 59(5):473-480. PMID: 23860103
- 30. **Crews RT**, Yalla S, Fleischer AE & Wu SC. (2013) "A Growing Troubling Triad: Diabetes, Aging, and Falls," <u>Journal of Aging Research</u>, vol. 2013, Article ID 342650, 6 pages. doi:10.1155/2013/342650
- 31. Reeves ND, Najafi B, **Crews RT** & Bowling FL. (2013) "Aging and Type 2 Diabetes: Consequences for Motor Control, Musculoskeletal Function, and Whole-Body Movement." (editorial) <u>Journal of Aging Research</u>. vol. 2013, Article ID 508756, 2 pages. doi:10.1155/2013/508756
- 32. **Crews RT**, Sayeed F & Najafi B. (2012) "Impact of Strut Height on Offloading Capacity of Removable Cast Walkers." <u>Clinical Biomechanics</u>, Aug;27(7): 725-30.
- 33. Wu SC, **Crews RT**, Najafi B, Rivera S, Minder JL, Anderson CA (2012) "Safety and Efficacy of Mild Compression (18-25mmHg) Therapy in Patients with Diabetes and Lower Extremity Edema." <u>Journal of Diabetes Science and Technology</u>,6 (3): 641-647.
- 34. Fascione J, Crews RT & Wrobel JS. (2012) Dynamic footprint measurement collection technique and intra-rater reliability: ink mat, paper pedography, and electronic pedography. JAPMA. Mar; 102(2): 130-138
- 35. Wrobel JS, Chagares W, Stuck RM, Weaver F, Crews RT, Rapacki L, Paulson R, & Armstrong DG. (2011) "Creating a diabetes foot reminder-based registry using the electronic medical record." <u>Informatics in Primary Care</u>, 18(4): 283-287.
- 36. Bowling FL, **Crews RT**, Salgami E, Armstrong DG & Boulton AJM. (2011). "The use of Superoxidized Aqueous Solution vs. Saline as a replacement solution in the VersajetTM lavage system in chronic diabetic foot ulcers: A pilot study." <u>JAPMA</u>, 101(2): 124-126.
- 37. Najafi B, Crews RT & Wrobel JS. (2010) "The Importance of Time Spent Standing for those at Risk of Diabetic Foot Ulceration." <u>Diabetes Care</u>. Nov;33(11):2448-50.
- 38. Najafi B, Horn D, Marclay S, **Crews RT**, Wu S & Wrobel JS. (2010) Assessing postural control and postural control strategy in diabetes patients using innovative and wearable technology. <u>J Diabetes Sci Technol.</u> 4(4):780-791
- 39. Najafi B, Crews RT, Armstrong DG, Rogers LC, Aminian K & Wrobel JS. (2010) "Can We Predict Outcome Of Surgical Reconstruction Of Charcot Neuroarthropathy By Dynamic Plantar Pressure Assessment? A proof of concept study." <u>Gait and Posture</u>, 31: 87-92.
- 40. Fascione, JM., Crews, RT. and Wrobel, JS.(2009) 'Association of footprint measurements and running training level, performance success, and training specificity', Footwear Science, 1: 3, 145-152.
- 41. **Crews RT**, Bowling FL & Boulton AJM. (2009) "Controversies in off-loading should Big Brother be watching." <u>Current Diabetes Reports</u>, 9: 417-419.

- 42. Wrobel JS, **Crews RT**, & Connolly JE. (2009) "Clinical factors associated with a conservative gait pattern in older male veterans with diabetes," <u>Journal of Foot and Ankle Research</u>, 2(11)
- 43. Armstrong DG, **Crews RT**, Moore JC, et al. (2009) "Clinical Effectiveness of an Acellular Dermal Regenerative Tissue Matrix Compared to Standard Wound Management in Healing Diabetic Foot Ulcers: A Prospective, Randomized, Multi-Center Study," International Wound Journal, 6(3): 196-208.
- 44. Feuerstein C, Norem N, Traverso V, Zomaya N, Crews RT, Wrobel JS. (2009) "Gait Changes with the Use of Heelys: A Case Study," <u>JAPMA</u>, 99(3): 247-50.
- 45. Crews, RT, Armstrong, DG & Boulton, AJM. (2009) "A Method for Assessing Offloading Compliance," <u>JAPMA</u>, 99(2): 100-103.
- 46. Klein, EE, Crews, RT, Wu, SC, Wrobel, JS & Armstrong, DG. (2008) "CLEAR Cleat: A Proof of Concept Trial of an Aerobic Activity Facilitator to Reduce Plantar Forefoot Pressures and the Potential in Those with Foot Ulcers," <u>JAPMA</u>, 98(4):261-7.
- 47. Wu SC, Crews RT, Zelen C, Wrobel JS, Armstrong DG (2008) "Use of cholrhexidine-impregnated patch at pin site to reduce local morbidity: the ChIPPS Pilot Trial", International Wound Journal, 5(3): 416-22.
- 48. Crews, RT & Wrobel, JS. (2008) "Physical management of the Charcot foot." Clinics in Podiatric Medicine and Surgery, Jan; 25(1): 71-79.
- 49. Christie, A, Fling, B, **Crews, RT**, Mulwitz, L & Gary Kamen. (2007) "Reliability of motor-evoked potentials in the ADM muscle of older adults." <u>Journal of Neuroscience Methods</u>, 164(2): 320-4.
- 50. **Crews RT**, Armstrong DG, (2007) "The Association between Physical Activity and Diabetic Foot Ulcers: A Current Prospectus (Effecto Protector de la Actividad Fisica Sobre el Pie Diabetico)", Sociedad Iberoamericana de Información Científica, June 7.
- 51. Crews, R. & Kamen, G. (2006) "Motor-evoked potentials following imagery and limb disuse." International Journal of Neuroscience, 116(5): 639-51.
- 52. Wu SC, Crews RT, Armstrong DG, (2005) "The pivotal role of offloading in the management of neuropathic foot ulceration" <u>Current Diabetes Report</u>, 5(6): 423-9.
- 53. **Crews, R.**, Pemberthy, P., Mayhew, D., Adair, E. (2002) "Comparison of Knowledge of Results Presentation on a Simple Motor Task Through Constant Practice." <u>Iowa PE Journal</u>. 35(1).

Book Chapters

- 1. Crews RT, Polacek SK & Wu SC. (in press) "Evolutions in the use of lower extremity compression in persons with diabetes over the past decade," in *Compression*. Ed, Mosti G & Partsch H. Edizioni Minerva Medica: Torino, Italy.
- 2. Vileikyte L and **Crews RT**. "Psychological and Behavioral Aspects of Diabetic Foot Ulceration," in *The Foot in Diabetes*, 5th Ed, Boulton AJM, Rayman G and Wukich DK. 2020, Chichester, Wiley & Sons, 139-151.
- 3. Hwang, S., Yalla S., and **Crews R**., "Processing uncertain GPS trajectory data for assessing the locations of physical activity," in *Big Data for Regional Science*. L.A. Schintler and Z. Chen, Editors. 2018, Routledge: Abingdon, Oxon; New York, NY.
- 4. **Crews, R.T.** and S.V. Yalla, "Biomechanical and Physical Activity Considerations for Diabetic Peripheral Neuropathy," in *Gait Biometrics: Basic Patterns, Role of Neurological Disorders and Effects of Physical Activity*, L. Li and M. Holmes, Editors. 2013, Nova Science Publishers, Inc.: New York. p. 45-64.
- 5. Armstrong DG, Wu SC, **Crews R**, "New Casting Techniques: Introduction to the 'Instant Total Contact Cast", in *The Foot in Diabetes*, 4th Ed, Boulton AJM, Cavanagh PR and Rayman G, Editors. 2006, Chichester, Wiley & Sons, 350-354.
- 6. Armstrong DG, Wu SC, **Crews R**, "Algorithms for Assessing Risk for Ulcerations and Amputations", in *The Foot in Diabetes*, 4th Ed, Boulton AJM, Cavanagh PR and Rayman G, Editors. 2006, Chichester, Wiley & Sons, 431-439.
- 7. Armstrong DG, Wu SC, **Crews RT**, "Practical Strategies for Debridement, Off-Loading and Healing the Diabetic Foot Wound", in Pearce WH, Matsumura JS, and Yao JST, *Trends in Vascular Surgery*, Evanston, IL, USA, Greenwood Academic, 461-472, 2006

Professional/Trade Periodicals

- 1. Crews RT. (2022) "Physical Activity and the Diabetic Foot: Measuring what We Intend to Manage." Foot and Ankle Quarterly. 33(1): 1-5.
- 2. Crews RT, Lepow BD & Armstrong DG. (2021) "Limb Preservation in a Post-pandemic World: Virtually or Physically We're all in this Together." <u>Lower Extremity Review</u>. July: 13(7). https://lermagazine.com/article/limb-preservation-in-a-post-pandemic-world-virtually-or-physically-were-all-in-this-together
- Yalla SV & Crews RT. (2012) "Rethinking device design to improve compliance."
 <u>Lower Extremity Review</u>, September.
 <u>http://lowerextremityreview.com/article/rethinking-device-design-to-improve-compliance</u>
- 4. **Crews, RT** (2009) "Diabetes: Improving foot care compliance." <u>Lower Extremity Review</u>, October. <u>http://lowerextremityreview.com/issues/october09/diabetes-improving-foot-care-compliance/comment-page-1</u>

- 5. **Crews, RT** (2007) "Pressure and Activity Level in the Development of Diabetic Foot Ulcers." Podiatry Management June/July
- 6. Ali YA, **Crews RT**, Wu SC, Armstrong DG "VCC The Marriage of Modern Technologies and Common Sense", O&P Almanac, March, 2008

PRESENTATIONS

Session Chair

- 1. **Crews RT** & Shukla V. "Workshop: Diabetic Foot" 6th Congress of the World Union of Wound Healing Societies (WUWHS), Abu Dhabi, United Arab Emirates, March 2022. (virtual)
- 2. Lepow BD, Montero-Baker M & Crews RT. "Offloading, Remote Patient Monitoring / wearables, etc / Bedside / Chairside Wound Diagnostics American Limb Preservation Society (ALPS) networking session." DFCon (Interdisciplinary Diabetic Foot Conference) 2021, San Francisco, CA, October 2021.
- 3. Shin L, Najafi B & Crews RT. "Free Papers & Awards." DFCon (Interdisciplinary Diabetic Foot Conference) 2021, San Francisco, CA, October 2021.
- 4. "Diabetic Foot Management—Care Strategies for the Primary Care and Medical Teams" American Diabetes Association's 80th Scientific Sessions, Chicago, IL, June 2020
- 5. "Diabetic Foot Offloading (workshop)." World Union of Wound Healing Societies (WUWHS) 2020, Abu Dhabi, United Arab Emirates, March 2020 (conference cancelled).

Invited Oral Presentations

- Crews RT. "Biomechanical approach to the diabetic foot ulcer: where are we today?" 6th Congress of the World Union of Wound Healing Societies (WUWHS), Abu Dhabi, United Arab Emirates, March 2022. (virtual)
- 2. **Crews RT**. "Human Subjects Research and IRB Oversight: A Primer for New Investigators." Captain James A. Lovell Federal Health Care Center's Podiatric Residency Program. North Chicago, IL, February 2022.
- 3. Crews RT. "Research- Where Does One Begin?" Camp Pod. August 5, 2021.
- 4. **Crews RT**. "How do offloading devices' design features impact patients' ability to 'hold their ground'?" 1st DFCONtinuum Webinar: E-poster highlights from DFCONline. December, 2020.
- 5. **Crews RT**. "Diabetic Foot Ulcer Pressure Relief—What You Can Do in the Office Today." American Diabetes Association's 80th Scientific Sessions, Chicago, IL, June 2020.

- 6. **Crews RT**. "A Global Perspective on Taking a Walk Around the Block with a Diabetic Foot Ulcer." World Union of Wound Healing Societies (WUWHS) 2020, Abu Dhabi, United Arab Emirates, March 2020 (conference cancelled).
- 7. **Crews RT**. "My Experience as a Consumer and Producer of Health Sciences Literature." Medical Library Association's InSight Initiative Summit 3, Chicago, IL, June 2019.
- 8. **Crews RT**. "Talking the Talk and Walking the Walk in Diabetic Footwear." Michigan Podiatric Medical Association Great Lakes Conference, Dearborn, MI, January 2017.
- 9. **Crews RT**, Fleischer AE & Wu SC. "The Diabetic Foot Ulcer: Prevention, Treatment and Patient Impact." American Association of Diabetes Educators, webinar, December 2014.
- 10. **Crews RT**. "Walking Down Offloading Lane, Where Have We Been and Where Are We Going?" IPMA Annual Meeting, Lincolnshire, IL, October, 2014.
- 11. **Crews RT**. "Taking the load off diabetic foot ulcer patients." World Congress on Endocrinology; Raleigh, NC, August 2013.
- 12. **Crews RT** & Close, NC. "Biostatistics for Mere Mortals." MAGI's Clinical Research Conference; Boston, MA, May 2010.
- 13. **Crews RT**. "Monitoring Offloading Compliance: Keeping Footwear on to keep the Load Off." Invited Lecture at University of Manchester, UK September 2009.
- 14. **Crews RT**. "Ankle Goniometry," Investigators Meeting- A Phase II Randomized, Double Blind, Placebo Controlled Dose Finding Study Investigating the Efficacy of HP802-247 in Venous Leg Ulcers, HealthPoint, February, 2009.
- 15. **Crews RT**. "Introduction to Human Performance Laboratory Analyses" Lead America (Medicine and Healthcare Career Conference), North Chicago, IL, July 2008
- 16. Cavanagh, PR, Crews, RT, Jensen, JL, & Steinberg, JS. "Offloading" Diabetic Foot Global Conference (DFCon), L.A., CA March 2008.
- 17. **Crews RT**. "Dynamic Plantar Pressure Assessment" Put a Leap into Your Step, Rosalind Franklin University of Medicine and Science, North Chicago, IL February 2008.
- 18. **Crews RT**. "The Road to Amputation through Diabetes and How to Find a Different Path." Amputee Coalition of America Annual Conference, Atlanta, GA June 2007.
- 19. **Crews RT**. "Introduction to Gaitlab Analyses." Rosalind Franklin University of Medicine and Science's Mini Medical School, North Chicago, IL May 2007.
- 20. **Crews RT**. "Increasing Activity in the High Risk Diabetic Foot." Purdue University Graduate Seminar in the Department of Health and Kinesiology, West Lafayette, IN February 2007.
- 21. **Crews RT**. "Prescribing Increased Physical Activity for the High Risk Diabetic Foot: A Step in the Right or Wrong Direction?" Invited Lecture at Manchester Royal Infirmary, Manchester, UK October 2006.

Oral Abstracts (* denotes presenter)

- 1. Gustav J*, van Netten JJ, Lazzarini PA, **Crews RT**, Najafi B & Mueller MJ. "Weight-bearing Activity in Offloading Devices during Healing of Diabetic Foot Ulcers." European Wound Management Association (EWMA), November 2020 London, UK (virtual)
- 2. Yalla S*, Subramanian V & Crews R. "Standing time and sit-to-stand transition patterns in users of unilateral transfemoral prostheses." American Orthotic & Prosthetic Association (AOPA) National Assembly. September 2020 Las Vegas, NV (virtual)
- 3. Samuelson K*, Kiefer C, Rosenblatt NJ & Crews RT. "Evaluation of offloading footwear options' impact upon user stability." Midwest Student Biomedical Research Forum, Omaha, NE, February 2020.
- 4. **Crews RT***, Tilsley JD, Sreeram A & Rosenblatt NJ. "The effect of removable cast walker form features on neuropathic diabetic individuals' compensatory response to perturbations." 8th International Symposium on the Diabetic Foot, The Hague, Netherlands, May 2019.
- 5. Akram A*, Kim A, Ram R, Subramanian V, Crews R, Wu S & Yalla S. "Using Balance and Reach Velocity Assessments to Identify Effects of Removable Cast Walker Strut Height in Diabetic Patients." American Podiatric Medical Association's Annual Scientific Meeting, Washington D.C., July 2018.
- 6. Hwang S*, Crews R, Yalla S, Schneider K, and Moxley E, "Measuring context-specific activity of diabetic persons using GPS, accelerometer, and GIS", The Annual Meeting of the American Association of Geographers (AAG), April 10-14, 2018.
- 7. Girgis CP*, Domijancic R, Mosher E, Yalla SV, Wu SC & Crews RT. "Evaluation of the Effect of Removable Cast Walkers on Spinal Alignment and Gait." American Podiatric Medical Association's Annual Scientific Meeting, Nashville, TN, July 2017.
- 8. **Crews RT**, Girgis C, Domijancic R, Mosher E & Yalla SV*. "Influence of Offloading Induced Limb Length Discrepancies upon Spinal Alignment." American Diabetes Association's 77th Scientific Sessions, San Diego, CA, June 2017.
- 9. Ruchi R*, Wilhite S, Subramanian V, Yalla SV & Crews RT. "Strut Height Influence on Performance of Common Physical Activities by Diabetic Patients using Removable Cast Walkers." Midwest Student Biomedical Research Forum, Omaha, NE, March 2017.
- 10. Waverly BJ*, Hshieh S, Crews RT, Jones JM, Weil L, Weil LS, Klein EE & Fleischer AE. "Does Second Metatarsal Length Correlate with Plantar Pressure Measurements Beneath the Second Metatarsophalangeal Joint During Walking?" American College of Foot and Ankle Surgeons (ACFAS) 75th Anniversary Scientific Conference, Las Vegas, NV, March 2017.

- 11. Hwang S*, Yalla S & Crews R. "Conditional resampling for segmenting GPS trajectory towards exposure assessment." GIScience 2016 Workshop on Analysis of Movement Data (AMD' 16), Montreal, Canada, September 2016.
- 12. Wu S*, Crews R, Skratsky M, Branigan M, Ortiz J & Andersen CA. "Control of Lower Extremity Edema in Patients with Diabetes: A Double Blind RCT Assessing the Efficacy of a Mild Compression Diabetic Sock" 5th Congress of World Union of Wound Healing Societies, Florence, Italy, September 2016.
- 13. Crews RT*, Yalla SV, Ortiz J, Fleischer AE & Najafi B. "Initial Changes in Postural Stability of Older Adults after provision of Custom-Made Ankle Foot Orthoses." The FIP World Congress of Podiatry, Montreal, Canada, May 2016.
- 14. Wu SC, **Crews RT**, Skratsky M, Branigan M*, Ortiz J & Andersen C. "Control of Lower Extremity Edema in Patients with Diabetes: Double-Blind RCT Assessing the Efficacy of Mild Compression Diabetic Socks." American Diabetes Association's 75th Scientific Sessions, Boston, MA, June 2015.
- 15. **Crews RT***, Candela J & Ghazizadeh R. "Gait and Perceived Comfort Implications of Offloading Devices': Size and Induced Limb Length Inequality." 7th International Symposium on the Diabetic Foot, Hague, Netherlands, May 2015.
- 16. Wu SC*, **Crews RT**, Skratsky MK, Branigan M, Ortiz J, Anderson CA. "Control of Lower Extremity Edema in Patients with Diabetes: A Double Blind RCT Assessing the Efficacy of a Mild Compression Diabetic Sock." 7th International Symposium on the Diabetic Foot, Hague, Netherlands, May 2015.
- 17. Hwang S*, Yalla S & Crews RT. "Integrating accelerometer-based activity data with GPS track data to assess risks for diabetic foot ulceration." Association of American Geographers Annual Meeting, Chicago, IL April 2015.
- 18. Law R*, Neubauer E, Yalla S, **Crews R** & Najafi B. "Should Surface Type Influence Choice in Footwear in Diabetics with Neuropathy", Midwest Student Biomedical Conference, Omaha, NE, February 2015.
- 19. Law R*, Neubauer E, Yalla S, **Crews R** & Najafi B. "The Effect Of Walking Surface and Footwear In Diabetic Patients with Peripheral Neuropathy Compared to Age Matched Controls." MidWinter Conference, Chicago, IL, January 2015
- Neubauer E*, Law R, Yalla S, Crews R & Jarrett B. "Heel Off An objective measure proposed to quantify painful equinus during walking". MidWinter Conference, Chicago, IL, January 2015
- 21. Hwang S*, Yalla S & Crews RT. "Quantifying Location Specific Physical Activity of Individuals through Integration of GPS and Accelerometery." Applied Geography Conference, Atlanta, GA October 2014.
- 22. Yalla SV, Ortiz J, Najafi B & Crews RT*. "Can older adults' postural stability be improved with ankle foot orthoses?" American Orthotic and Prosthetic Association's National Assembly; Las Vegas, September 2014.

- 23. Vileikyte L*, **Crews RT**, Shen BJ, Boutlton AJM & Peyrot M. "Determinants of Adherence to Offloading in Patients with Diabetic Foot Ulcers: A Prospective Study." ADA 74th Scientific Sessions; San Francisco, June 2014.
- 24. **Crews RT***, Candela J & Ghazizadeh R. "Influence of Offloading Devices' Size and Induced Limb Length Discrepancy upon Gait and Perceived Comfort of Individuals at Risk of Foot Ulceration." 24th Congress of the International Society of Biomechanics, Natal, Brazil, August 2013.
- 25. Yalla SV, **Crews RT**, Ortiz J & Najafi B*. "Do Customized Ankle Foot Orthoses Improve Postural Stability in Older Adults?" 24th Congress of the International Society of Biomechanics, Natal, Brazil, August 2013.
- 26. Crews RT*, Candela J & Ghazizadeh R. "Offloading and Comfort Responses to Walking in Different Heighted Removable Cast Walkers with and without a Contralateral Limb Length Equalizer." ADA 73rd Scientific Sessions; Chicago, June 2013.
- 27. Wrobel JS*, Fleischer AE, Crews RT, Jarrett B & Najafi B. (2nd Place winner) "A Randomized Controlled Trial of Custom Foot Orthoses for the Treatment of Plantar Heel Pain: A Return to Spontaneous Physical Activity." APMA Annual Scientific Conference, Las Vegas, NV 2013.
- 28. Crews RT*, Lamont P, Shen BJ, Campbell L, Boulton AJM & Vileikyte L. "Offloading Adherence and Diabetic Foot Ulcer Healing." ADA 71st Scientific Sessions; San Diego, June 2011.
- 29. **Crews RT***, Sayeed F, Najafi B & Wrobel JS. "Impact of Removable Cast Walker Height upon Offloading Capacity and Gait." International Symposium on the Diabetic Foot; Noordwijkerhout, Netherlands, May 2011.
- 30. Najafi B*, Crews RT & Wrobel JS. (1st place winner) "A Novel Plantar Stimulation technology for improving postural control in Patients with Diabetic Peripheral Neuropathy A Double-Blinded, Randomized Study." International Symposium on the Diabetic Foot; Noordwijkerhout, Netherlands, May 2011.
- 31. **Crews RT***, Shen BJ, Delgado C, Espinosa A, Boulton AJM, Kirsner RS, Vileikyte L. "Adherence to Offloading and the Healing of Diabetic Foot Ulcers: Initial Findings." The Malvern Diabetic Foot Conference; Malvern, UK, May 2010.
- 32. Najafi B, **Crews RT**., Bharara, M, Wrobel JS, Rogers LC, Armstrong DG* (2009). 'Objective Outcome Evaluation of Charcot Foot Reconstruction by Monitoring Dynamic Behavior of Plantar Pressure' South Western Surgical Congress, San Diego, CA 2009
- 33. Najafi B*, Wu SC, **Crews RT**, Shapiro R, Rivera N, Armstrong DG, Wrobel JS. "Increased Visual Dependence Of Postural Anticipatory Strategy In Patients With Diabetic Peripheral Neuropathy" American Podiatric Medical Association Scientific Conference, Toronto, Canada, July 2009.
- 34. Najafi B*, Crews R, Bharara M, Wrobel JS, Rogers LC, Armstrong DG. Objective outcome evaluation of Charcot foot reconstruction by monitoring dynamic behavior

- of plantar pressure. Selected for oral presentation, Society for Advanced Wound Care (SAWC) meeting, Dallas, TX, published in Wounds March 2009; 21(3) a12.
- 35. Najafi B, **Crews R**, Bharara M, Rogers LC, Wrobel J, Armstrong DG*, "Outcome Evaluation of Charcot Reconstruction by Monitoring Dynamic Behavior of Plantar Pressure Distribution", National Institutes of Health Workshop on Charcot Arthropathy, Recent Progress and Future Directions, Bethesda, Maryland, September, 2008
- 36. Kline EE*, **Crews RT**, Wrobel JS, Wu SC, Armstrong DG "The CLEAR Cleat: A Preliminary Kinematic Analysis" American Podiatric Medical Association Scientific Conference, Philadelphia, PA, August, 2007. Silver Award for Oral Presentations.

Poster Abstracts

- 1. Soni S*, Polaceck S, Samuelson K, Kiefer C, Rosenblatt NJ, **Crews R** & Wu S. "Offloading conditions' impact on stability of persons with diabetic peripheral neuropathy." APMA Annual Scientific Meeting (The National), Orlando, FL. July 28-31, 2022.
- 2. **Crews RT** & Rosenblatt NJ. "Do Varied Offloading Modalities Have Differing Impacts Upon Users' Fall Risk?" American Diabetes Association's 82nd Scientific Sessions, New Orleans, LA, June 2022.
- 3. Tong KP, Garcia A, Jones C, Fahey K, Sorrentino E, Trivedi A & Crews RT. "Limb Preservation Success Stories from a Student-Led Free Clinic." DFCon (Diabetic Global Foot Conference). San Francisco, CA. October 21-23, 2021.
- 4. Talbot D, Intine R, **Crews R** & Chatchavalvanich S. "Influence of Uniprofessional versus Interprofessional Team Learning Activities on the Acquisition of Anatomical Knowledge: A Randomized Crossover Study." Experimental Biology (EB2021). April 27-30, 2021. (virtual)
- 5. Crews RT, Samuelson K, Kiefer C & Rosenblatt NJ. "How do offloading devices' design features impact patients' ability to 'hold their ground'?" Diabetic Foot Conference (DFCon) 2020. Los Angeles, CA, October 9-10 (virtual)
- 6. Samuelson K, Kiefer C, Rosenblatt NJ, Wu SC & Crews RT. "Evaluation of Offloading Footwear Options' Impact Upon User Stability." APMA Annual Scientific Meeting (The National), Boston, MA. July 23-26, 2020.
- 7. **Crews RT**, Tilsley JD, Sreeram A & Rosenblatt NJ. "Do design features of offloading removable cast walkers affect neuropathic diabetic individuals' responses to perturbations?" XXVII Congress of International Society of Biomechanics, Calgary, Canada, August 2019.
- 8. Young J, Andersen R, Crews RT & Rosenblatt NJ. "The effect of diabetes on single stepping thresholds using a simple spring-loaded scale." XXVII Congress of International Society of Biomechanics, Calgary, Canada, August 2019.

- 9. Rosenblatt NJ, Young J, Andersen R, Wu SC & Crews RT. "Quantifying stepping thresholds as a novel, modifiable measure of fall-risk in older adults with diabetes." 8th International Symposium on the Diabetic Foot, The Hague, Netherlands, May 2019.
- 10. **Crews RT**, Raymond BS, Steriosvski J, Gillyard K, Yang C & Wu SC. "When time is limited, which vibratory test should be selected for peripheral neuropathy screening?" 8th International Symposium on the Diabetic Foot, The Hague, Netherlands, May 2019.
- 11. Tilsley JD, King AL, Rosenblatt NJ, Wu S, **Crews RT**. "Modifying Removable Cast Walker Features to Optimize User Stability." American Podiatric Medical Association's Annual Scientific Meeting, Washington D.C., July 2018.
- 12. Moxley E, Schneider KL, **Crews RT**, Subramanian V, Sungsoon H & Yalla SV. "Predicting response to a physical activity intervention for individuals at risk of diabetic foot ulceration." (moderated poster session) Preventative Cardiovascular Nurses Association's 24th Annual Symposium. Baltimore, MD, April 2018.
- 13. Schneider K, **Crews R**, Subramanian V, Moxley E, Hwang J, DiLiberto F, Aylward L, Bean J, & Yalla S. "Feasibility of using a Fitbit-based intervention for increasing physical activity in patients at risk for a diabetic foot ulcer." 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, LA, April 2018.
- 14. King A, Tilsley J, Rosenblatt N, & Crews R. "Effect of removable cast walkers with and without a contralateral lift on postural stability of diabetic neuropathic patients." Robert B. Glassman Memorial Brain, Mind and Behavior Symposium. Lake Forest, IL. November 2017.
- 15. Ram R, Akram A, Wilhite S, Subramanian V, Yalla S, **Crews R**, Wu S. "Removable Cast Walker Strut Height Influence on Performance of Common Physical Activities by Persons with Diabetes", American Podiatric Medical Association (APMA) National Meeting, Nashville TN, July 2017
- 16. Fleischer A, Hshieh S, Jones J, **Crews R**, Waverly B, Klein E, Weil L.S Jr. "The Association Between Second Metatarsal Length and Plantar Forefoot Loading Under the Second Metatarsophalangeal Joint", American Podiatric Medical Association (APMA) National Meeting, Nashville TN, July 2017
- 17. Vileikyte L, Shen BJ, Browns S, Boulton AJM, Kirsner R, Reeves N & Crews R. "Depression, Physical Activity, and Diabetic Foot Ulcer Healing." Poster showcased in special <u>moderated poster discussion</u> at American Diabetes Association's 77th Scientific Sessions, San Diego, CA, June 2017.
- 18. **Crews RT**, Schneider KL, Hwang S, Moxley E, Subramanian V, Aylward L, DiLiberto F & Yalla SV. "Preliminary Findings of Low-cost Interventions to Increase Physical Activity in Adults at Risk for a Diabetic Foot Ulcer." Diabetic Foot Global Conference (DFCon), Houston, TX, March 2017.

- 19. Yalla S, **Crews RT**, Khan S, Subramanian V, Schoenrock P, Chavez V & Senno R. "Do Objective Measures of Balance Correlate with Falls in Dementia Patients?" American Congress of Rehabilitation Medicine, Chicago, IL, November 2016.
- 20. Domijancic R, **Crews RT**, Subramanian V, Schneider KL, Hwang S & Moxley EA. "Increasing Physical Activity in Adults at Risk for a Diabetic Foot Ulcer." Robert B. Glassman Memorial Brain, Mind and Behavior Symposium. Lake Forest, IL. November 2016.
- 21. Stervioski J, Subramanian V, Kim A, **Crews RT**, Fleischer A & Yalla SV. "Strut Height Influence on Performance of Common Physical Activities by Diabetic Patients using Removable Cast Walkers." APMA National Meeting, Philadelphia, PA, July 2016.
- 22. Williams B, Fleischer A, Patel N, **Crews R** & Yalla S. "Effectiveness of a novel elastic ankle exoskeleton device for the treatment of plantar heel pain" Poster presentation, APMA National Meeting, Philadelphia, PA, July 2016.
- 23. Crews RT, Yalla S, Dhatt N, Burdi D & Hwang S. "Monitoring Location Specific Physical Activity via Integration of Accelerometry and Geotechnology." Foot International 2016/i-FAB 2016, June 2016, Berlin, Germany
- 24. Yalla S, Crews RT, Dhatt N, VanDeMark & Hwang S. "Objective quantification of location specific physical activity through integration of accelerometry and geotechnologies" poster presentation, APMA, July 2015, Orlando, FL
- 25. Neubauer EF, Yalla SV, Law RW, **Crews RT** & Jarrett BD. "Heel-off: An Objective Measure Proposed to Quantify Equinus Related Foot Pathologies." APMA, July 2015, Orlando, FL.
- 26. Winder M, Wu SC, **Crews RT**, Skratsky M, Ortiz J, Andersen CA. "Control of Lower Extremity Edema in Patients with Diabetes: A Double Blind RCT Assessing the Efficacy of a Mild Compression Diabetic Sock" poster presentation, APMA, July 2015, Orlando, FL
- 27. **Crews RT**, Yalla SV, Dhatt N, VanDeMark C, Hwang S. "Monitoring Location Specific Physical Activity via Integration of Accelerometry and Geotechnology." American Diabetes Association's 75th Scientific Sessions, Boston, MA, June 2015.
- 28. Yalla SV, Wu SC, **Crews RT**, Skratsky M, Branigan M, Ortiz J & Andersen C. "Influence of Mild Compression Diabetic Socks on Balance and Physical Activity in Diabetic Patients with Lower Extremity Edema." American Diabetes Association's 75th Scientific Sessions, Boston, MA, June 2015.
- 29. **Crews RT**, Yalla SV, Dhatt N, VanDeMark C, Hwang S. "Objective quantification of location specific physical activity through integration of accelerometry and geotechnologies." 7th International Symposium on the Diabetic Foot, Hague, Netherlands, May 2015.
- 30. **Crews RT**, Lin J, Klein EE, Yalla SV. "Preliminary Investigation of an Exercise Program Utilizing an Offloading Bicycle Cleat in Diabetic Foot Ulcer Patients." 7th International Symposium on the Diabetic Foot, Hague, Netherlands, May 2015.

- 31. Yalla SV, Hwang S, Johansson N, Dhatt N, **Crews RT**, "Objective Quantification of Location Specific Physical Activity of Individuals at Risk of Diabetic Foot Ulceration through Integration of Accelerometry and Geotechnologies." James A. Lovell Federl Health Care Center / Rosalind Franklin University 2nd Annual Research Poster Day, North Chicago, IL, July 31st, 2014
- 32. Vileikyte L, **Crews RT**, Shen BJ, Boulton AJM, Lavery LA & Peyrot M. "Determinants of Offloading Adherence in Patients with Diabetic Foot Ulcers: A Prospective Study." APMA Annual Scientific Meeting, Honolulu, 2014.
- 33. Czurylo M, Dhaduk R, Yalla SV, Wu SC & Crews RT. "Offloading and gait implications of removable cast walker insole design." APMA Annual Scientific Meeting, Honolulu, 2014.
- 34. Wrobel JS, Fleischer AE, Matzkin-Bridger J, Fascione J, Crews RT, Bruning N, Jarrett B. "Do Biomechanical Exam Variables Predict Response to Conservative Treatment of Non-Chronic Plantar Fasciitis? APMA Annual Scientific Meeting, Honolulu, 2014. (Third Place Winner for Poster Abstracts)
- 35. Peterson B, Yalla SV, Swanke R, **Crews RT**, Wu SC. "Recreational Runner's Self-Perception Compared to their Actual Running Strike Patterns." APMA Annual Scientific Meeting, Honolulu, 2014. (Third Place Winner for Student/Resident Poster Abstracts)
- 36. Wrobel JS, Fleischer AE, Matzkin-Bridger J, Jarrett B, Fascione J, Crews RT, Bruning N. "Do Biomechanical Variables Predict Response to Conservative Treatment of Non-Chronic Plantar Fasciitis?" World Congress of Biomechanics. Boston, MA. July, 2014.
- 37. Crews RT, Ghazizadeh R & Smith S. "Offloading and Vascular Evaluations of Individuals at High Risk for Diabetic Foot Ulcers Cycling with the CLEAR Cleat." Diabetic Limb Salvage, Washington D.C., October 2013.
- 38. Yalla SV, Fleischer AE, Grewal G, Kelly C, Berns D, Albright R, Crews RT & Najafi B. "The Effect of Peripheral Neuropathy Severity on Gait Characteristics in Diabetic Patients." 24th Congress of the International Society of Biomechanics, Natal, Brazil, August 2013.
- 39. **Crews RT**, Candela J, & Wu SC. "Evaluation Of Offloading Devices' Size And The Use Of A Contralateral Limb Length Equalizer On Gait, Comfort and Standing Balance of Individuals at Risk Of Diabetic Foot Ulceration." APMA Annual Scientific Meeting, Las Vegas, 2013.
- 40. Yalla SV, Crews RT, Fleischer AE, Ortiz J & Najafi B. "The Effectiveness of Customized Ankle Foot Orthoses on Postural Stability in Older Adults." APMA Annual Scientific Meeting, Las Vegas, 2013.
- 41. Yalla SV, Crews RT, Opferman B, Behal Gautam, Wu SC, & Najafi B. "Flip-flops influence on DPN patients gait on hard, grass and sand surfaces when compared to athletic shoes." APMA Annual Scientific Meeting, Las Vegas, 2013.
- 42. Albright R, Fleischer A, Kelly C, Yalla S, Grewal G, Moore B, Berns D, **Crews R** & Najafi B. "Impact of Peripheral Neuropathy Severity on Gait Stability in Patients with

- Diabetes Mellitus: Is Vibration Perception Threshold a Useful Surrogate for Fall Risk?" APMA Annual Scientific Meeting, Las Vegas, 2013.
- 43. Kunigonis N, **Crews RT**, Skratsky MK, Yalla S & Wu SC. "RCT Assessing the Safety and Efficacy of Mild (18-25 mm Hg) Diabetic Compression Socks." APMA Annual Scientific Meeting, Las Vegas, 2013.
- 44. Vileikyte L, Shen BJ, **Crews RT**, Boulton AJM & Peyrot MF. "Depression and Diabetic Foot Ulcer Healing: The Association Revisited." American Diabetes Association's 73rd Annual Scientific Sessions, Chicago, IL. June, 2013.
- 45. Opferman B, Behal G, Yalla SV, **Crews RT**, Najafi B. "The Effectiveness of Flip Flops While Walking on Different Surfaces Compared to Athletic Shoes in DPN Patients." Captain James A. Lovell Federal Health Care Center & Rosalind Franklin University Research Poster Day, North Chicago, 2013.
- 46. Crews RT, Smith ST, Liu SB & Wu SC. "Offloading and Vascular Evaluations of Individuals at High Risk for Diabetic Foot Ulcers Cycling with the CLEAR Cleat." APMA Annual Scientific Meeting, Washington D.C., 2012
- 47. Fleischer A, Albright R, Asfaw T, Andrews M, Crews RT & Wrobel JS. "Sonographic Predictors of Treatment Response in Patients Receiving Mechanical Support for Plantar Fasciitis." APMA Annual Scientific Meeting, Washington D.C., 2012
- 48. Tawancy CH, Assaf Y, Najafi B, Wu S & Crews RT. "Preliminary Biomechanical Assessment of Shear Reducing Insoles for the Prevention of Diabetic Foot Ulcers." APMA Annual Scientific Meeting, Washington D.C., 2012
- 49. Matzkin-Bridger J, Fleischer A, Jarrett B., **Crews RT** & Wrobel JS. "More Ankle Equinus, More Relief?" APMA Annual Scientific Meeting, Washington D.C. 2012
- 50. **Crews RT**, Smith SR, Liu SB. "Initial Vascular Response to CLEAR Cleat Cycling in Patients at Risk for DFU." American Diabetes Association's 72nd Scientific Sessions, June 8-12, 2012 in Philadelphia, PA.
- 51. **Crews RT**, Smith S, Liu S. "Offloading and Vascular Responses to CLEAR Cleat Cycling by Individuals at Risk of Diabetic Foot Ulceration." American College of Sports Medicine Annual Meeting, San Francisco, CA, 2012.
- 52. **Crews RT**, Lamont P, Boulton AJM & Vileikyte L. "The Influence of Offloading Adherence Upon Diabetic Foot Ulcer Healing." International Symposium on the Diabetic Foot; Noordwijkerhout, Netherlands, May 2011.
- 53. Wu SC, Minder J, **Crews RT**, Control of Lower Extremity Edema in Persons with Diabetes with Mild Compression Diabetic Socks: A Pilot Study, ADA Scientific Sessions, San Diego, CA, 2011.
- 54. Wu SC, Minder J & Crews RT "Control of Lower Extremity Edema in Persons with Diabetes with Mild Compression Diabetic Socks: A Pilot Study" SAWC Spring, Dallas, TX, 2011.
- 55. Crews RT, Shen BJ, Boulton AJM & Vileikyte L. Association with DFU healing and offloading compliance: preliminary findings. i-FAB, Seattle, WA, 2010.

- 56. Weiland JT & Crews RT. Offloading the Foot by Varying Fiber Density Within Diabetic Hosiery. i-FAB, Seattle, WA, 2010.
- 57. Najafi B, Crews RT, Fascione JM & Wrobel JS. Using Plantar Pressure Regression Factor Scores to Discriminate Foot Posture. i-FAB, Seattle, WA, 2010.
- 58. Najafi B, Crews RT, Armstrong DG & Wrobel JS. RF Score as a Reliable Measurement to Assess Improved Dynamic Plantar Loading Improving Post Foot Reconstruction Surgery, i-FAB, Seattle, WA, 2010
- 59. Najafi B, Crews RT, and Wrobel JS. Assessing Foot-Loading Condition In Diabetic Patients During Activity Of Daily Living, APMA, 2010.
- 60. Najafi B, Wu SC, **Crews RT**, and Wrobel JS. Plantar Temperature Fluctuation During Walking in Charcot Patients and Healthy Subjects, APMA, 2010.
- 61. Najafi B, **R.T. Crews**, S.C. Wu, J.S. Wrobel, Exploring postural compensation in Diabetes-related neuropathy patients (DPN): The Role of Visual and Somatosensory Adaptation, American Diabetic Association (ADA), 70th Scientific Sessions, Orlando, 2010.
- 62. Najafi B, S.C. Wu, **R.T. Crews**, J.S. Wrobel, Dynamic Plantar Temperature May Provide a Sensitive and Reliable Measure to Predict Foot Ulcers In Charcot Neuroarthropathy Patients, American Diabetic Association (ADA), 70th Scientific Sessions, Orlando, 2010
- 63. Wrobel JS, Crews RC, Rapacki L, Chagares W, Yong R, Stuck R, Weaver F, Armstrong DG. Using the electronic medical record to create an exam-based foot risk registry. Accepted for poster presentation American Podiatric Medical Association's Scientific Sessions, Toronto, ON, 2009.
- 64. Khan T, Wrobel JS, **Crews RT**, Najafi B. Gait Parameters inside the gaitlab: Does walking distance affect the reliability?, American Podiatric Medical Association's Scientific Sessions, Toronto, ON, 2009.
- 65. Najafi B, **Crews RT**, Wrobel JS. Does walking distance affect the reliability? DFCon '09, Hollywood, CA, 2009.
- 66. Najafi B, Wu SC, **Crews RT**, Shapiro R, Armstrong DG, Wrobel JS. Deficit in Postural Anticipatory Strategy Due to Diabetic Peripheral Neuropathy. DFCon '09, Hollywood, CA, 2009.
- 67. Najafi B, **Crews R**, Rogers L, Armstrong DG, Wrobel JS. Toward A Universal Objective Outcome Measure For Assessing Abnormal Dynamic Loading. DFCon '09, Hollywood, CA, 2009.
- 68. Najafi B, **Crews RT**, Wrobel JS. Wearable Sensor for Continuous Monitoring Of Physical Activity: A Novel Approach To Elderly Care. Accepted for International Society for Posture and Gait Research, Bologna, Italy, June, 2009.
- 69. Najafi B, Wu SC, **Crews RT**, Shapiro R, Armstrong DG, Wrobel JS. Postural Control: The Role of Feedforward Sensory Compensatory System in Patients, Who Suffer from Sensory Feedback Disorder. Accepted for International Society for Posture and Gait Research, Bologna, Italy, June, 2009.

- 70. Najafi B, **Crews RT**, Rogers L, Armstrong DG, Wrobel JS. Toward A Universal Objective Outcome Measure Following Reconstructive Foot and Ankle Surgery: The Charcot Foot. American Podiatric Medical Association's Scientific Sessions, Toronto, ON, 2009.
- 71. Najafi B, Wu S., **Crews R**, Shapiro R, Slone-Rivera, N., Armstrong D., Wrobel J. Increased Visual Dependence of postural Anticipatorily in Patients with Diabetic Peripheral Neuropathy, APMA, Toronto, 2009.
- 72. Najafi B, **Crews RT**, Armstrong DG, Rogers LC, Wrobel JS, 'A Novel Charcot Foot Reconstructive Surgery Outcome Measure' American Diabetes Association's Scientific Sessions, June, 2009, New Orleans, LA.
- 73. Najafi B, Wu S, **Crews R**, et al. Game-Based System for Evaluation of Balance Control in Diabetic Peripheral Neuropathy. American Diabetes Association, New Orleans, June 2009.
- 74. Bharara M, Najafi B, **Crews RT**, Wrobel JS, Armstrong DG. Smart Thermometry Insoles for Ambulatory Assessment of Plantar Temperatures for Prevention of Diabetic Foot Ulcers. 8th Annual Meeting Diabetic Technology Maryland, November 13-15, 2008.
- 75. Najafi B, **Crews RT**, Wrobel JS, Armstrong DG. A novel outcome to characterize plantar pressure behavior during activity of daily living: A reliable score of differentiating pathological and healthy plantar pressure loading pre and post Charcot reconstruction. 8th Annual Meeting Diabetic Technology Maryland, November 13-15, 2008.
- 76. Bharara M, Armstrong, D, **Crews, RT**, Lanctot, D. "Biomechanical Testing of the Shear Modulating Diabetic Insoles: An Engineering Perspective." North American Congress on Biomechanics, Ann Arbor, Michigan, August 2008.
- 77. Wrobel JS, Crews RT, & Connolly J. "Multivariate Conservative Gait Pattern in Diabetes." North American Congress on Biomechanics, Ann Arbor, Michigan, August 2008.
- 78. **Crews, RT**, Armstrong, DG, Boulton, AJM. "A method for assessing offloading compliance." APMA Annual Scientific Meeting, Honolulu, Hawaii July 2008.
- 79. Wrobel JS, **Crews RT**, & Connolly JE. "Multivariate Conservative Gait Pattern in Diabetes." APMA Annual Scientific Meeting, Honolulu, Hawaii July 2008.
- 80. Fascione JM, **Crews RT**, Wrobel JS. "The Association of Foot Print Parameters and Running Training Level/Event Focus". ACSM's 55th Annual Meeting, Indianapolis Indiana, May 2008 and North American Congress on Biomechanics, Ann Arbor Michigan, August 2008.
- 81. Lanctot D, Armstrong DG, Bharara M, & Crews RT. "Biomechanical Testing of the Shear Modulating Diabetic Insoles: An Engineering Perspective." Diabetic Foot Global Conference (DFCon), L.A., CA March 2008.

- 82. Fascione JM, **Crews RT**, Wrobel JS. "The Association of Foot Print Parameters and Running Training Level/Performance Success." ACFAS Annual Scientific Conference, Long Beach California, February 2008
- 83. **Crews RT**, Klein EE, Feuerstein CA, Wrobel JS, Wu SC, & Armstrong DG. "CLEAR Cleat: A Preliminary Evaluation of a Physical Activity Facilitator for Individuals with Diabetic Forefoot Ulcers." 5th International Symposium on The Diabetic Foot, Noordwijkerhout, The Netherlands, 2007.
- 84. Wu SC, **Crews RT**, Armstrong DG, "The Prevalence of Onychomycosis within Diabetic Feet at High Risk for Ulceration", International Symposium on the Diabetic Foot, Noordwijkerhout, Netherlands, May, 2007
- 85. Klein EE, Feuerstein CA, **Crews RT**, Wrobel JS, Wu SC, Armstrong DG, "The CLEAR Cleat: A Preliminary Kinematic Analysis of Hip and Knee Angular Joint Displacement During Recumbent Cycling", 20th Annual Symposium for the Advancement of Wound Care, Tampa Florida, April 2007
- 86. **Crews RT**, Wu SC, Siddiqui N, Friedrich T, & Armstrong DG. "Diagnostic Value of Pulse Oximetry and Peripheral Temperature for Lower Extremity Peripheral Arterial Disease in Patients with Diabetes Mellitus." American College of Foot and Ankle Surgeons Annual Scientific Conference, Las Vegas, 2006.
- 87. Wu SC, Crews RT, Zelen C, Wrobel J, & Armstrong DG. "Use of Chlorhexidine-Impregnated Patch at Pin-Site to Reduce Local Morbidity: The ChIPPS Case-Control Trial." American College of Foot and Ankle Surgeons Annual Scientific Conference, Las Vegas, 2006.
- 88. Kline EE, **Crews RT**, Wu SC, Armstrong DG "The CLEAR Cleat: Aerobic Activity Facilitator for Persons at high-risk for Lower Extremity Amputation" American Podiatric Medical Association meeting Las Vegas, NV, August 2006 Second place, outstanding student or resident poster
- 89. Klein EE, **Crews RT**, Wu SC, & Armstrong DG. "The CLEAR Cleat: aerobic activity facilitator for persons at high-risk for lower extremity amputation." Diabetic Foot Global Conference, LA 2006.
- 90. Wu SC, Crews RT, Zelen C, Wrobel J, Armstrong DG "Evaluation of Chlorhexadine Gluconate Impregnated Polyurethane Dressing Against Percutaneous Device Related Skin Colonization and Local Infections" National Post Graduate Symposium, Midwest Podiatry Meeting, Chicago, IL, April 2006
- 91. Crews RT, Zelen C, & Armstrong DG. "Use of Chlorhexidine-Impregnated Patch at Pin-Site to Reduce Local Morbidity." Symposium on Advanced Wound Care and Wound Healing Society Meeting, San Antonio 2006.

PATENTS

- 1. Rosenblatt NJ, Crews R & Amirouche F. (2020). Intelligent Offloading Insole Device, (U.S. Patent No. 10,721,993)
- 2. Klein E, Crews R, Wu S, Armstrong D. (2012). Extremity Stress Attenuation Modality with Resistance-mechanism Engaging Member, (US 8,105,257 B2)

PROFESSIONAL ACTIVITIES

Journal Editorial Board

Foot & Ankle Surgery: Techniques, Reports & Cases (FASTRAC)- 2021-present

Therapeutic Advances in Endocrinology and Metabolism- 2021- present Journal of Diabetes Research- 2018- 2022

Journal Guest Editor

Therapeutic Advances in Endocrinology and Metabolism- 2021-2022

Special Issue: Recent Challenges and Future Opportunities in Caring for Patients with Diabetic Foot Disease

Foot & Ankle Quarterly- 2021-2022

Journal of Aging Research- 2012

Special Issue: Aging and Type 2 Diabetes: Consequences for Motor Control, Musculoskeletal Function, and Whole-Body Movement

Journal of Diabetes Science and Technology- guest editor 2019 & 2020 Special issues on the diabetic foot

Journal Ad Hoc Reviewer

Advances in Skin & Wound Care- 2007-present

Archives of Physical Medicine and Rehabilitation- 2012-present

BMC Open Diabetes Research and Care- 2019-present

BMC Musculoskeletal Disorders- 2016-present

Canadian Journal of Diabetes- 2020- present

Clinical Biomechanics- 2006- present

Diabetes Care- 2021-present

Diabetes Metabolism Research and Reviews- 2012-present

Diabetes, Obesity and Metabolism- 2020-present

Diabetes Research and Clinical Practice- 2016-present

Diabetic Medicine- 2012-present

Diabetologia- 2018-present

Gerontology- 2014-present

International Wound Journal- 2013-present

Journal of the American Podiatric Medical Association - 2010-present

Journal of Biomechanics - 2014-present

Journal of Diabetes and Its Complications- 2016-present

Journal of Diabetes Science and Technology- 2010-present also Guest editor for 2019 special issue on the diabetic foot

Journal of Foot and Ankle Research- 2022-present

Journal of Foot and Ankle Surgery- 2019-present

Journal of Wound Care- 2021-present

Medicine and Science in Sports and Exercise- 2016-present

Orthopaedic Journal of Sports Medicine- 2015-present

PLOS ONE- 2018-present

Primary Care Diabetes- 2016-present

Expert/Guidelines Reviewer

American Diabetes Association-Scientific Sessions Abstract Reviewer – 2021

Pedorthic Association of Canada Clinical Practice Guidelines – 2012

International Working Group on the Diabetic Foot- Guideline on offloading foot ulcers in persons with diabetes – 2019

International Working Group on the Diabetic Foot- Effectiveness of offloading interventions to heal foot ulcers in persons with diabetes: A systematic review -2019

Reuters Insight Expert Network- 2008 - present

Grant Reviewer

Diabetes UK-2022

National Institute for Health Research (UK)- 2018-present

Pac-12 Conference Student-Athlete Health and Well-Being Grant Program- 2018

US National Institute on Disability, Independent Living, and Rehabilitation Research (NIILRR) Field Initiated Projects- 2017

DePaul University and Rosalind Franklin University Research Pilot Grant Program- 2016

Advocate Medical-2014-2018

Sir Charles Gairdner Hospital Research Advisory Committee, Perth Australia-2007

Associations

American Diabetes Association, 2015 – present

American Limb Preservation Society (ALPS), 2020 – present

Society of Clinical Research Associates, 2009 - present

i-FAB (International Foot and Ankle Biomechanics Group), 2007 – present

American College of Sports Medicine, 2001-2004

Phi Epsilon Kappa (kinesiology & health professional fraternity), 1999-2001

Dr. William M. Scholl College of Podiatric Medicine- Service

Leadership Roles

Chair Swanson Scholar Program Committee- 2015-2021

Chair Faculty and Staff Awards Committee- 2021-present

Strategic Plan 2020-2023: Chair Financial Resources and Philanthropy Subcommittee- 2020-2023

CPME Self-Study Steering Committee (accreditation) Chair- Standard 7
Subcommittee (College Resources) - 2019-2021

Committee Member

Faculty Appointments, Promotion, & Tenure Committee- 2021-present

Faculty and Staff Awards Committee- 2021-present

Curriculum Committee- 2014-present

Swanson Scholar Program Committee- 2007 – present

Admissions Committee – 2011 – present

Admissions Applicant Screening Subcommittee- 2019- 2021

Faculty/Student Mentoring Program – 2011-present

SCPM Academic Assembly – 2007 - present

Strategic Plan 2020-2023:

Financial Resources and Philanthropy Subcommittee- 2020-2023 Research Subcommittee- 2020-2023

CPME Self-Study Steering Committee (accreditation) - 2019-2021

Strategic Plan 2016-2020:

Member Financial Resources & Philanthropy Subcommittee- 2016-2020

5-Year Chair and Department Review (Dept. of Podiatric Surgery and Applied Biomechanics) – 2016-2017

Scholarship Committee- 2015-2017

SCPM Workload Model Committee- 2014-2015

CPME Standard 8 Committee - 2013

Faculty/Staff Search Committees

Clinical Research Coordinator - 2021-2022

Human Performance Laboratory Director- 2021

Clinical Research Coordinator - 2020

Research Faculty Position with CLEAR- 2013

Human Performance Laboratory Director- 2012

Clinical Research Coordinator - 2012

CLEAR Administrative Assistant- 2012

Human Performance Laboratory Director- 2007

Rosalind Franklin University of Medicine and Science-Service

<u>Leadership Roles</u>

IRB co-Vice Chair- 2022-present

Faculty Senate- SCPM Councilor- 2021-2023

Faculty Advisor RFUMS American Limb Preservation Society (ALPS) Student Chapter- 2020-present

Committee Member

Institutional Review Board- 2021-present

Library Advisory Committee- 2020-present

Faculty Senate- senator July 2019 – June 2023

RFUMS website research subcommittee- 2016-present

Web Steering Committee- 2014-2015

Research Mentor for RFUMS Initiatives with Undergraduate and High School Students – 2012-present

INSPIRE Students – program designed to serve as a pipeline for Hispanic students interested in healthcare and biomedical research

DePaul University Students

Lake Forest College Students

CERTIFICATIONS

Collaborative Institutional Training Initiative (CITI Program) Courses

Biomedical Research

Biomedical Responsible Conduct of Research

Good Clinical Practice

IRB Member- 8/2021-8/2024

Responsible Conduct of Research-Biomedical Responsible Conduct of Research

VA Human Subjects Protection

International Guideline Credentialing and Certification (INGUIDE) Program

Level 1: Guideline Group or Panel Member Course

CPR/AED, American Heart Association

Shipping Biological Substances, Infectious Substances and Related Hazards- HighQ Training

Certified Clinical Research Professional – Society of Clinical Research Associates

RESEARCH EXPERIENCE

CLEAR, 11/04 – Present

Grant Funded

- 1. PI, NIH R01 "Improving Diabetic Foot Ulcer Offloading: A Pilot Study on the Impact of Removable Cast Walker Design Factors on Usability." 2022-2025. R01DK131303
- 2. Faculty, NIH T35 "Summer Research Fellowship Program for Podiatric Medical Students." 2019-2024. 2T35DK074390
- 3. Co-PI, Rosalind Franklin University/DePaul University joint pilot grant "Piloting behavioral interventions to increase physical activity in adults at risk for a diabetic foot ulcer." 2015-2017
- 4. Co-PI, Rosalind Franklin University/DePaul University joint pilot grant "Objective quantification of location specific physical activity of individuals at risk of diabetic foot ulceration through integration of accelerometry and geotechnologies." 2013-2015
- 5. Faculty, NIH T35 "Summer Research Fellowship Program for Podiatric Medical Students." 2014-2019. 2T35DK074390
- 6. Co-investigator, NIH-SBIR "Interactive Sensor Technology to Measure Adherence to Prescribed Therapeutic Footwear." 1R43DK093236-01, 2011-2013
- 7. Consultant, NIH Grant "Psychological Distress and Healing of Diabetic Foot Ulcers." 5R01DK071066-03, 2009-2014
- 8. Clinical Scientist, NIH-STTR, "Auto-BioFeedback and Health Monitoring System for People with Minor Cognitive Disorders." R41AG033996, 2009-2010
- 9. Faculty, NIH T35 "Summer Research Fellowship Program for Podiatric Medical Students." 2008-2013
- 10. Clinical Scientist, NIH-STTR, "Portable Device for Telecare Monitoring of Elderly People." 2009-2010.
- 11. Clinical Scientist, APMA "A Randomized Controlled Trial of Custom Foot Orthoses for the Treatment of Plantar Heel Pain." 2008-2012
- 12. Clinical Coordinator, National Institutes of Health, "Instant Total Contact Cast to Heal Diabetic Foot Ulcers", 1R01DK074483. 2007-2009.
- 13. Clinical Scientist, VA HSR&D "CPRS Diabetes Foot Reminder-Based Registry and Decision Support Tool." 2006-2008

Industry (Investigator Initiated)

- 1. Co-Investigator, "Testing the wait time required for FastCast Offloading System to set for weight bearing activity," Hollister Inc., 2016-2017
- 2. Investigator, "Effectiveness of a novel elastic ankle exoskeleton brace for the treatment of plantar heel pain." Sub-contract from Weil Foot and Ankle Institute, 2015-2016.
- 3. Investigator, "Evaluation of Tissue Oxygenation and the Progression of Wound Healing: A Prospective Cohort Evaluating the Underlying Mechanisms of Transdermal Cutaneous Oxygen Therapy on Chronic Lower Extremity Ulcers." Electrochemical Oxygen Concepts, Inc. (EO2), 2014-2015.
- 4. Principal Investigator, "Optimizing the insole of a removable cast walker for the offloading of diabetic feet." Össur Americas, Inc., 2013.
- 5. Principal Investigator, "The Effect of customized Ankle Foot Orthoses (AFO) on gait and balance in older adults." Langer Biomechanics, 2012-2013.
- 6. Co-Investigator, "Efficacy of a Mild Compression Diabetic Sock Versus A Non-Compression Diabetic Sock in the Control of Lower Extremity Edema in Patients with Diabetes: A Randomized Controlled Trial," Sigvaris 2011-2013.
- 7. Project Manager, "Control of Lower Extremity Edema in Patients with Diabetes using a Diabetic Sock that Offers Mild Compression: A Pilot Study," Sigvaris 2010-2011.
- 8. Investigator, A Double-Blinded, Randomized, Controlled Evaluation of High Voltage Pulsed Current Electrical Stimulation for the Treatment of Loss of Protective Sensation in Patients with Diabetic Peripheral Neuropathy." WaveRx, 2008-2010.
- 9. Clinical Scientist, "Improving Sensory Function in Patients with Diabetic Peripheral Neuropathy Using Low-level Electrical Neurostimulation", Afferent Corporation, 2006-2008
- 10. Clinical Scientist, "Use of Injectable Poly-L-Lactic Acid to Mitigate Pressure and Risk for Ulceration in the High Risk Diabetic Foot", Sanofi-Aventis, 2005-2008
- 11. Clinical Scientist "A Prospective, Multi-Center, Randomized, Double-masked, Controlled, Clinical Investigation of Dermacyn as a Replacement Solution with Versajet Levage System", Investigator Initiated w/Oculus, 2006-2007
- 12. Clinical Scientist, "Topical Collagen-Silver versus Standard Care Following Phenol Ablation of Ingrown Nails: A Randomized Controlled Trial", Investigator Initiated w/ Ethicon, 2006-2008
- 13. Clinical Scientist "Use of Chlorheidine-Impregnated Patch at Pin-Site to Reduce Local Morbidity", Investigator Initiated w/ Ethicon, 2005.
- 14. Clinical Scientist, "A Prospective, Randomized, Comparative Parallel Study of Acellular Matrix Wound Dressing In The Management of Diabetic Foot Ulcers", Wright Medical Technologies, 2005-2008

Industry (Industry Initiated)

- 1. Clinical Research Coordinator, "A Phase 2 Double-blind, Randomized, Placebo-controlled Study to Assess the Efficacy and Safety of AMG0001 to Improve Ulcer Healing and Perfusion in Subjects Who Have Peripheral Ischemic Ulcers of the Lower Extremity." AnGes USA, Inc. 2020-2022.
- 2. Unblinded investigational product preparer, "A Prospective, Randomized, Double-Blind, Placebo-Controlled Trial of DaxibotulinumtoxinA for Injection for the Management of Plantar Fasciitis." Revance Therapeutics, Inc. 2019-2021.
- Clinical Research Coordinator, "A Multi-Center, Randomized, Controlled Trial of Non-healing Diabetic Foot Ulcers (DFU) Treated with Standard of Care with or without Cryopreserved Umbilical Cord Allograft (NEOX® CORD 1KTM)." Amniox Medical, Inc.; TissueTech, Inc. 2016-2017.
- 4. Clinical Research Coordinator, "A Prospective, Randomized, Comparative Effectiveness Study of a Single-Use, Negative Pressure Wound Therapy System (PICO) versus a Traditional Negative Pressure Wound Therapy System (tNPWT) in the Treatment of Lower Extremity Ulcers." Smith & Nephew Inc. 2015-2017
- 5. Unblinded investigational product preparer, "A Phase 2 Multicenter, Randomized, Double-blind, Placebo-controlled, dose range finding study to evaluate the efficacy and safety of intramuscular injection of Human Placenta-derived Cells (PDA-002) in Subjects who have Diabetic Foot Ulcer with Peripheral Arterial Disease" Celgene Cellular Therapeutics. 2014-2017.
- 6. Clinical Research Coordinator, "A Randomized, Double-Blind, Multicenter, Superiority, Placebo-Controlled Phase 3 Study of Pexiganan Cream 0.8% Applied Twice Daily for 14 Days in the Treatment of Adults with Mild Infections of Diabetic Foot Ulcers (Protocol Number: DPX-306)." Dipexium Pharmaceuticals, Inc. 2014-2016.
- 7. Clinical Research Coordinator, "A Phase I, Multicenter, Open-Label, Dose-Escalation Study to Evaluate the Safety and Efficacy of Intramuscular Injection of Human Placenta-Derived Cells (PDA-002) in Subjects with Peripheral Arterial Disease and Diabetic Foot Ulcer." Celgene Cellular Therapeutics, 2013-2015.
- 8. Clinical Research Coordinator "A Multicenter, Randomized, Controlled, Open-Label Trial to Assess the Clinical Effectiveness of DermACELL, Conventional Care Wound Management, and GraftJacket in Subjects with Chronic Wounds in the Lower Extremities." (Protocol CR-13-001), LifeNet Health, Inc. 2014-2015.
- 9. Clinical Research Coordinator, "A Phase III Multinational, Multicenter, Randomized, Double-Blind, Parallel-Group, Sham-Controlled Study to Evaluate the Safety, Tolerability and Efficacy of CureXcellTM as an Adjunct to Good Wound Care Measures in Treating Lower Extremity Chronic Ulcers in Adults with Diabetes Mellitus" MacroCure Ltd, 2012-2014.

- 10. Clinical Research Coordinator, "A Phase 3 Randomized, Double Blind, Vehicle Controlled Study Investigating the Safety and Efficacy of HP802-247 in the Treatment of Venous Leg Ulcers" Healthpoint Ltd, 2012-2014.
- 11. Clinical Research Coordinator, "A Non-Interventional Safety Study Providing 12 Months Follow-Up from First Exposure to HP 802-247 in Subjects with Venous Leg Ulcer" Healthpoint Ltd, 2012-2015.
- 12. Clinical Coordinator, "A Phase II Randomized, Double Blind, Placebo Controlled Dose Finding Study Investigating the Efficacy of HP802-247 in Venous Leg Ulcers," HealthPoint 2009-2011
- 13. Clinical Coordinator, "Evaluation of a Medical Food for Chronic Wounds" Abbott, 2008-2009
- 14. Clinical Coordinator, "TOPICAL II: A Prospective, Multi-Centre, Double Blind Randomized Placebo Controlled Clinical Trial to Evaluate the Safety and Efficacy of ICXP007 in a Phase III Trial with Four-Layer Therapeutic Compression, for the Treatment of Non-Infected Skin Leg Ulcers, due to Venous-Insufficiency" 2007-2008
- 15. Clinical Coordinator, "A Randomized, Double-Blind, Vehicle-Controlled, Multicenter, Parallel Group Study to Assess the Efficacy, Safety, and Tolerability of Topical Terbinafine Hydrogen Chloride (HCI) Formulation for 24-48 Weeks of Treatment in Patients with Mild to Moderate Toenail Onychomycosis" 2007-2008
- 16. Clinical Coordinator, A Multi-Center, Double-Blind, Randomized, Parallel, Vehicle- and Standard Care-Controlled, Dose-Ranging Study Assessing the Safety and Efficacy of MRE0094 Gel When Applied Topically for 90 Days to Subjects with Diabetic, Neuropathic, Foot Ulcers", King Pharmaceuticals, 2006-2008.
- 17. Clinical Coordinator, "A Randomized, Controlled Multicenter Trial of Vacuum Assisted Closure Therapy in the Treatment and Blinded Evaluation of Diabetic Foot Ulcers (Protocol VAC2001-08)", Kinetic Concepts International, 2002-2007

<u>University of Massachusetts</u>, 9/02 – 9/04

- 1. Principle Investigator- NASA Space Physiology Research Grant awarded by the American College of Sports Medicine-2003
- 2. the relationship of mental practice and neuroplasticity during periods of muscle disuse
- 3. motor unit activation patterns in young and old adults
- 4. topical application of ibuprofen for muscle soreness

NASA, summer 2001

- 1. worked on multiple flight hardware studies concerned with muscle loss countermeasures and aerobic fitness
- 2. the use of exercise during extra vehicular pre-breathe protocol in order to reduce the risk of decompression sickness

TEACHING EXPERIENCE

Rosalind Franklin University of Medicine and Science, 2004-present

- 1) Associate Professor- Department of Podiatric Surgery and Applied Biomechanics 2021-present
- 2) Assistant Professor- Department of Podiatric Surgery and Applied Biomechanics 2014-2021
- 3) Instructor- Department of Podiatric Surgery and Applied Biomechanics, Scholl College 2008-2014
- 4) Lecturer Department of Biomechanics and Orthopedics Scholl College 2007-2008
- 5) Research project advisor to students from Chicago Medical School, Physical Therapy Department and Scholl College of Podiatry 2005-present
- 6) Lecturer for Scholl College Summer research program 2005-present

University of Massachusetts, 9/2002 – 9/2004

- 1) TA- Introduction to Exercise Science Guest lecturer, laboratory instructor, wrote quizzes, graded quizzes and other assignments
- 2) TA- Professional Writing Seminar for Exercise Science Majors Instructed class once per week, graded assignments

Truman State University, 9/1998 – 12/2001

Psychology professor's TA
 Wrote textbook tests, graded tests and assignments

RESEARCH MENTOR AND GRADUATE DEGREE COMMITTEES

PhD Examiner

La Trobe University

Emma MacDonald 2022

Research Mentor

Dr. William M. Scholl College of Podiatric Medicine Students

Sonia Chuang	summer 2022
Stephen Polacek	summer 2021
Sweta Soni	summer 2021
Kayln Jones	summer 2020
Angela Garcia	summer 2020
Katherine Samuelson	summer 2019
Chase Kiefer	summer 2019
Akshitha Sreeram	summer 2018
Jacob Tilsley	summer 2017
Christopher Girgis	summer 2016
Manish Pandya	summer 2015
Robert (Drew) Burdi	summer 2015
He (Helen) Xu	2014
Jeffrey Lin	summer 2014
Amanda Warner	summer 2014
Michael Czurylo	summer 2013
Romesh Dhaduk	summer 2013
Ramin Ghazizadeh	summer 2012
Cherreen Tawancy	summer 2011
Steven Smith	summer 2011
Frazz Sayeed	summer 2010
Anna Peterson	summer 2010
Jeffrey Weiland	summer 2009
Jeanna Fascione	2007-2010
Andrew Shinabarger	summer 2007
Anton Sella	summer 2007
Morgan Jerabek	summer 2007

Anna Gurrera	summer 2006
Jeremy Cook	summer 2006
Richmond Robinson	2006-2007
Erin Klein	2005-2009
Noman Siddiqui	summer 2005
Timothy Friedrich	summer 2005

Undergraduate Students

Makayla Sanchez (Lake Forest College)	summer 2022
Naidelyn Monroy (Eastern Illinois U.)	summer 2022
Hannah Kobienia (Lake Forest College)	summer 2021
Gabrielle Gutierrez (Lake Forest College)	summer 2019
Andgela Dragojevic (Lake Forest College)	autumn 2018
Zachary Weinstein (Lake Forest College)	summer 2018
Farah Farooqui (DePaul University)	summer 2018
Clarisse Pelaez (Lake Forest College	autumn 2017
Abagayle King (Lake Forest College)	summer 2017
Rachel Domijancic (Lake Forest College)	summer 2016
Emily Mosher (DePaul University)	summer 2016

High School Students

Holly Gussis	summer 2019
Juan Zaniga	summers 2017 & 2018
Aileen Toledo	summers 2015 & 2016
Jessica Gallegos	summer 2013
Maria Villareal	summers 2012 & 2013
Aleyha Mateed	summer 2012