RYAN THOMAS CREWS, MS, CCRP

Dr. William M. Scholl College of Podiatric Medicine's
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EDUCATION

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

TEACHING EXPERIENCE

Rosalind Franklin University of Medicine and Science, 2004-present

1) Instructor Department of Biomechanics and Orthopedics Scholl College 2008-present
2) Lecturer Department of Biomechanics and Orthopedics Scholl College 2007-2008
3) Research project advisor to students from Chicago Medical School and Scholl College of Podiatry
4) Lecturer for Scholl College Summer research program

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

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

EMPLOYMENT

Scholl College	**2007-present**	Instructor Department of Surgery and Applied Biomechanics, Scholl College of Podiatric Medicine, Rosalind Franklin University
CLEAR	**2008-present**	Operations Manager
	2004-2008	Original Research & Scientific Manager
North Chicago VA Medical Center	**2004-present**	WOC Research Appointment
Biotronic	**2004**	Neurophysiologist

HONORS AND AWARDS

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."

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 Journals

1. Yalla SV, Ortiz J, Crews RT & Najafi B. "Balance improvement in older adults using customized ankle foot orthoses." Footwear Science, 5:sup1, S119-S120, DOI: 10.1080/19424280.2013.799593
2. 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. Epub ahead of print. PMID: 23860103
3. Crews RT, Yalla S, Fleischer AE & Wu SC. (2013) "A Growing Troubling Triad: Diabetes, Aging, and Falls," Journal of Aging Research, vol. 2013, Article ID 342650, 6 pages. doi:10.1155/2013/342650
4. 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) Journal of Aging Research. vol. 2013, Article ID 508756, 2 pages. doi:10.1155/2013/508756
5. Fascione JM, Crews RT & Wrobel JS. (in press) "Footprint measurements' association with plantar kinetics: A linear regression model." JAPMA.
6. Crews RT, Sayeed F & Najafi B. (2012) "Impact of Strut Height on Offloading Capacity of Removable Cast Walkers." Clinical Biomechanics, Aug;27(7): 725-30.
7. 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." Journal of Diabetes Science and Technology,6 (3): 641-647.
8. 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
9. 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." Informatics in Primary Care, 18(4): 283-287.
10. 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." JAPMA, 101(2): 124-126.

11. Najafi B, Crews RT & Wrobel JS. (2010) "The Importance of Time Spent Standing for those at Risk of Diabetic Foot Ulceration." Diabetes Care. Nov;33(11):2448-50.
12. 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. J Diabetes Sci Technol. 4(4):780-791
13. 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." Gait and Posture, 31: 87-92.
14. 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.
15. Crews RT, Bowling FL & Boulton AJM. (2009) "Controversies in offloading – should Big Brother be watching." Current Diabetes Reports, 9: 417-419.
16. Wrobel JS, Crews RT, & Connolly JE. (2009) "Clinical Attributes for the Conservative Gait Pattern in Diabetes," Journal of Foot and Ankle Research, 2(11)
17. 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.
18. Feuerstein C, Norem N, Traverso V, Zomaya N, Crews RT, Wrobel JS. (2009) "Gait Changes with the Use of Heelys: A Case Study," JAPMA, 99(3): 247-50.
19. Crews, RT, Armstrong, DG & Boulton, AJM. (2009) "A Method for Assessing Offloading Compliance," JAPMA, 99(2): 100-103.
20. 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," JAPMA, 98(4):261-7.
21. 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.
22. Crews, RT & Wrobel, JS. (2008) "Physical management of the Charcot foot." Clinics in Podiatric Medicine and Surgery, Jan; 25(1): 71-79.
23. Christie, A, Fling, B, Crews, RT, Mulwitz, L & Gary Kamen. (2007) "Reliability of motor-evoked potentials in the ADM muscle of older adults." Journal of Neuroscience Methods, 164(2): 320-4.
24. 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.
25. Crews, R. & Kamen, G. (2006) "Motor-evoked potentials following imagery and limb disuse." International Journal of Neuroscience, 116(5): 639-51.

26. Wu SC, Crews RT, Armstrong DG, (2005) "The pivotal role of offloading in the management of neuropathic foot ulceration" Current Diabetes Report, 5(6): 423-9.
27. Crews, R., Pemberthy, P., Mayhew, D., Adair, E. (2002) "Comparison of Knowledge of Results Presentation on a Simple Motor Task Through Constant Practice." Iowa PE Journal. 35(1).

Book Chapters

1. Armstrong DG, Wu SC, Crews RC, "New Casting Techniques: Introduction to the 'Instant Total Contact Cast'", in Boulton AJM, Cavanagh PR and Rayman G, "The Foot in Diabetes, 4th Ed, Chichester, Wiley & Sons, 350-354, 2006
2. Armstrong DG, Wu SC, Crews RC, "Algorithms for Assessing Risk for Ulcerations and Amputations", in Boulton AJM, Cavanagh PR and Rayman G, "The Foot in Diabetes, 4th Ed, Chichester, Wiley & Sons, 431-439, 2006
3. 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

Trade Periodicals

1. Yalla SV & Crews RT. (2012) "Rethinking device design to improve compliance." Lower Extremity Review, September. http://lowerextremityreview.com/article/rethinking-device-design-to-improve-compliance
2. Crews, RT (2009) "Diabetes: Improving foot care compliance." Lower Extremity Review, October. http://lowerextremityreview.com/issues/october09/diabetes-improving-foot-care-compliance/comment-page-1
3. Crews, RT (2007) "Pressure and Activity Level in the Development of Diabetic Foot Ulcers." Podiatry Management June/July
4. Ali YA, Crews RT, Wu SC, Armstrong DG "VCC – The Marriage of Modern Technologies and Common Sense", O&P Almanac, March, 2008

PRESENTATIONS

Invited Oral Presentations

1. Crews RT & Close, NC. "Biostatistics for Mere Mortals." MAGI's Clinical Research Conference; Boston, MA, May 2010.
2. "Monitoring Offloading Compliance: Keeping Footwear on to keep the Load Off." Invited Lecture at University of Manchester, UK September 2009.
3. "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.
4. "Introduction to Human Performance Laboratory Analyses" Lead America (Medicine and Healthcare Career Conference), North Chicago, IL, July 2008
5. "Offloading" Cavanagh, PR, Crews, RT, Jensen, JL, & Steinberg, JS. Diabetic Foot Global Conference (DFCon), L.A., CA March 2008.
6. "Dynamic Plantar Pressure Assessment" Put a Leap into Your Step, Rosalind Franklin University of Medicine and Science, North Chicago, IL February 2008.
7. "The Road to Amputation through Diabetes and How to Find a Different Path." Amputee Coalition of America Annual Conference, Atlanta, GA June 2007.
8. "Introduction to Gaitlab Analyses." Rosalind Franklin University of Medicine and Science's Mini Medical School, North Chicago, IL May 2007.
9. "Increasing Activity in the High Risk Diabetic Foot." Purdue University Graduate Seminar in the Department of Health and Kinesiology, West Lafayette, IN February 2007.
10. "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

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

6. 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.
7. 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.
8. 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.
9. Najafi B, Crews RT., Bharara, M, Wrobel JS, Rogers LC, Armstrong D (2009). 'Objective Outcome Evaluation of Charcot Foot Reconstruction by Monitoring Dynamic Behavior of Plantar Pressure' South Western Surgical Congress, San Diego, CA 2009
10. 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.
11. 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.
12. 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
13. 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. 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.
2. 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.
3. 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.

4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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
10. 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
11. 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
12. Matzkin-Bridger J, Fleischer A, Jarrett B., Crews RT & Wrobel JS. "More Ankle Equinus, More Relief?" APMA Annual Scientific Meeting, Washington D.C. 2012
13. 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.
14. 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.
15. 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.
16. 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.

17. 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.
18. Crews RT, Shen BJ, Boulton AJM & Vileikyte L. Association with DFU healing and offloading compliance: preliminary findings. i-FAB, Seattle, WA, 2010.
19. Weiland JT & Crews RT. Offloading the Foot by Varying Fiber Density Within Diabetic Hosiery. i-FAB, Seattle, WA, 2010.
20. Najafi B, Crews RT, Fascione JM & Wrobel JS. Using Plantar Pressure Regression Factor Scores to Discriminate Foot Posture. i-FAB, Seattle, WA, 2010.
21. 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
22. Najafi B, Crews RT, and Wrobel JS. Assessing Foot-Loading Condition In Diabetic Patients During Activity Of Daily Living, APMA, 2010.
23. Najafi B, Wu SC, Crews RT, and Wrobel JS. Plantar Temperature Fluctuation During Walking in Charcot Patients and Healthy Subjects, APMA, 2010.
24. 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.
25. 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
26. 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.
27. 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.
28. Najafi B, Crews RT, Wrobel JS. Does walking distance affect the reliability? DFCon '09, Hollywood, CA, 2009.
29. 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.
30. 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.
31. 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.
32. 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.

33. 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.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.
39. 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.
40. Wrobel JS, Crews RT, & Connolly J. "Multivariate Conservative Gait Pattern in Diabetes." North American Congress on Biomechanics, Ann Arbor, Michigan, August 2008.
41. Crews, RT, Armstrong, DG, Boulton, AJM. "A method for assessing offloading compliance." APMA Annual Scientific Meeting, Honolulu, Hawaii July 2008.
42. Wrobel JS, Crews RT, & Connolly JE. "Multivariate Conservative Gait Pattern in Diabetes." APMA Annual Scientific Meeting, Honolulu, Hawaii July 2008.
43. 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.
44. 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.
45. 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
46. 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.

47. 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
48. 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
49. 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.
50. 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.
51. 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
52. 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.
53. 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
54. 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. Extremity Stress Attenuation Modality with Resistance-mechanism Engaging Member, Clear (US 8,105,257 B2)

PROFESSIONAL ACTIVITIES

Editorial Board Member

Journal of Aging Science- 2013-present

Journal Reviewer

Clinical Biomechanics- 2006- present
Advances in Skin & Wound Care- 2007-present
Journal of Diabetes Science and Technology- 2010-present
Journal of American Podiatric Medical Association- 2010-present
Archives of Physical Medicine and Rehabilitation- 2012-present

Diabetic Medicine- 2012-present
Diabetes Metabolism Research and Reviews- 2012-present
Journal of Aging Research- guest editor 2012 *Aging and Type 2 Diabetes: Consequences for Motor Control, Musculoskeletal Function, and Whole-Body Movement*
International Wound Journal- 2013-present
Journal of Diabetes Science & Technology- 2013-present

Reviewer
Pedorthic Association of Canada Clinical Practice Guidelines - 2012

Grant Reviewer
Sir Charles Gairdner Hospital Research Advisory Committee, Perth Australia

Reuters Insight Expert Network- 2008 - present

Associations
Society of Clinical Research Associates, 2009 - present
American College of Sports Medicine, 2001- 2004
Phi Epsilon Kappa (kinesiology & health professional fraternity), 1999-2001

Scholl College of Podiatric Medicine Committees
Swanson Scholar Program Committee- 2007 - present
Admissions Committee – 2011 - present

CERTIFICATIONS

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. Co-investigator, NIH-SBIR "Interactive Sensor Technology to Measure Adherence to Prescribed Therapeutic Footwear." 1R43DK093236-01, 2011-2013
2. Consultant, NIH Grant "Psychological Distress and Healing of Diabetic Foot Ulcers." 5R01DK071066-03, 2009-2014
3. Clinical Scientist, NIH-STTR, "Auto-BioFeedback and Health Monitoring System for People with Minor Cognitive Disorders." R41AG033996, 2009-2010
4. Faculty, NIH T35 "Summer Research Fellowship Program for Podiatric Medical Students." 2008-2013

5. Clinical Scientist, NIH-STTR, "Portable Device for Telecare Monitoring of Elderly People." 2009-2010.
6. Clinical Scientist, APMA "A Randomized Controlled Trial of Custom Foot Orthoses for the Treatment of Plantar Heel Pain." 2008-2012
7. Clinical Coordinator, National Institutes of Health, "Instant Total Contact Cast to Heal Diabetic Foot Ulcers", 1R01DK074483. 2007-2009.
8. Clinical Scientist, VA HSR&D " CPRS Diabetes Foot Reminder-Based Registry and Decision Support Tool." 2006-2008

Industry (Investigator Initiated)

1. Principal Investigator, "Optimizing the insole of a removable cast walker for the offloading of diabetic feet." Össur Americas, Inc., 2013.
2. Principal Investigator, "The Effect of customized Ankle Foot Orthoses (AFO) on gait and balance in older adults." Langer Biomechanics, 2012-2013.
3. 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.
4. 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.
5. 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." Investigator Initiated, WaveRx, 2008-2010.
6. Clinical Scientist, "Improving Sensory Function in Patients with Diabetic Peripheral Neuropathy Using Low-level Electrical Neurostimulation", Afferent Corporation, 2006-2008
7. 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
8. 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
9. Clinical Scientist, "Topical Collagen-Silver versus Standard Care Following Phenol Ablation of Ingrown Nails: A Randomized Controlled Trial", Investigator Initiated w/ Ethicon, 2006-2008
10. Clinical Scientist "Use of Chlorheidine-Impregnated Patch at Pin-Site to Reduce Local Morbidity", Investigator Initiated w/ Ethicon, 2005.
11. 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 III Multinational, Multicenter, Randomized, Double-Blind, Parallel-Group, Sham-Controlled Study to

Evaluate the Safety, Tolerability and Efficacy of CureXcell™ as an Adjunct to Good Wound Care Measures in Treating Lower Extremity Chronic Ulcers in Adults with Diabetes Mellitus" MacroCure Ltd, 2012-2014.

2. 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.
3. 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, 2012-2014.
4. 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
5. Clinical Coordinator, "Evaluation of a Medical Food for Chronic Wounds" Abbott, 2008-2009
6. 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
7. 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
8. 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.
9. 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

University of Massachusetts, 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