



The MADE Program was established in 2010. The following shows the honors and awards, grants and contracts, publications, patents, presentations, and posters for MADE projects.

HONORS AND AWARDS

Winner of Five-Minute Pitch Competition, Design of Medical Devices Conference, Minneapolis, MN - Development of an Active-Cooling System for Improving Residual-Limb Skin Care in Persons with Lower-Limb Amputation, presented by Todd Farrell, PhD - Sara Koehler-McNicholas, 2022

VA Midwest Health Care Network Star Award, Inpatient process, 1st Place-Christine Olney, PhD, 2019.

Best Poster Award, Reduced Bacterial Hand Contamination with an Ergonomic Wheelchair, Paralyzed Veterans of America Healthcare Summit and Expo, Orlando, Florida, Presented by Billie Slater, 2019.

Innovation Investment Award-VHA Innovators Network-VHA Innovation Ecosystem (Awardee- Billie Slater) Prosthetic Sock Education for Self-Management and Training and (Pro-SET) - (Seed Level) 2020-2021

Grand Prize Winner of the 3-in-5 Competition, Design of a Folding-Frame Ergonomic Wheelchair, Design of Medical Devices Conference, Minneapolis, Minnesota, Presented by Emily Hein, 2019.

Innovation Investment Award-VHA Innovators Network-VHA Innovation Ecosystem (Awardee- Billie Slater) The Veteran Amputee: A Prosthetic Sock Management Tool for Fit and Comfort - (Spread Level) 2019-2020

Innovation Investment Award-VHA Innovators Network-VHA Innovation Ecosystem (Awardee-Billie Slater) The Veteran Amputee: A Prosthetic Sock Management Tool for Fit and Comfort - (Seed Level) 2018-2019

Innovation Investment Award-VHA Innovators Network-VHA Innovation Ecosystem (Awardee- Billie Slater) The Veteran Amputee: A Prosthetic Sock Management Tool for Fit and Comfort - (Spark Level) 2018-2018

Grand Prize Winner of the 3-in-5 Competition, Design of an Ergonomic Wheelchair Drive System for Improved Shoulder Biomechanics, Design of Medical Devices Conference, Minneapolis, Minnesota, Presented by Gary Goldish, MD, 2016.

Honorary Membership – Andrew H. Hansen, PhD, American Academy of Orthotists and Prosthetists, Presented at the 41st Academy Annual Meeting and Scientific Symposium, New Orleans, Louisiana, February 20, 2015.

Research Award – Andrew Hansen, PhD, American Academy of Orthotists and Prosthetists, 2012.

GRANTS, AWARDS, and CONTRACTS

Pediatric Mobile Manual Standing Wheelchair for Children with Disabilities (PI: Hansen)
University of Minnesota Office of Discovery and Translation
The Pediatric Device Innovation Consortium
July 1, 2021 – June 30, 2022

Socket Fit Sensing and Management System (PI: McDonald)
Department of Defense RESTORE
October 1, 2020 – September 30, 2024

A Prosthetic Foot Test-Drive Strategy for Improving Stability and Falls-Related Outcomes in Veterans with Leg Amputations (PI: Morgenroth)
Department of Defense CDMRP
October 1, 2020 – September 30, 2024

Fall-Related Health Outcomes in Lower Limb Prosthesis Users: A Pragmatic Clinical Trial to Assess Effectiveness of Microprocessor-Controlled Prosthetic Knees (PI: Hafner)
Department of Defense CDMRP
October 1, 2020 – September 30, 2024

Developing Assessments and Interventions for Phantom Limb Pain in Veterans with Amputations (PI: Rich)
Veterans Administration Rehabilitation Research and Development – CDA-1
October 1, 2020 – September 30, 2022

Hybrid Electrical-Mechanical pump for Vacuum Suspension of Prosthetic Sockets (PI: Major)
Veterans Administration Rehabilitation Research and Development
April 1, 2020 – March 31, 2023

Refinement of the Comprehensive Mobile Assessment of Pressure (CMAP) System for Prevention of Pressure Injuries (PI: Olney)
Veterans Administration Rehabilitation Research and Development
April 1, 2020 – March 31, 2024

Comparative Effectiveness of Socket Casting Methods: Improving Form and Fit (PI: Fatone)
Department of Defense – Congressionally Directed Medical Research Programs
September 30, 2019 – September 29, 2022

Improving Commercial Readiness of the Multi-Purpose Arm Cycle Ergometer (M-PACE) (PIs: Olney and Goldish)
Veterans Administration Technology Transfer Program
April 1, 2019 – September 30, 2020

Improving Shoulder Health for Persons with SCI through an Ergonomic Wheelchair (PI: Looft)
Maslowski Charitable Trust
March 1, 2019 – March 1, 2021

Comparative Effect of Commercially Available Custom Dynamic Orthoses (PI: Wilken)
Department of Defense – Congressionally Directed Medical Research Programs

October 1, 2018 – September 30, 2022

Development of Personalized Mobility Interventions using Smart Sensor Resources for Lower-Limb Prostheses Users (PI: Jayaraman)

Department of Defense – Congressionally Directed Medical Research Programs
October 1, 2018 – September 30, 2022

The Bimodal Ankle for Mobility and Stability of Prosthesis Users (PIs: Wernke and Koehler-McNicholas)

National Institute on Disability Independent Living and Rehabilitation Research – SBIR
September 30, 2018 – September 29, 2021

Sensor System for Self-Management of Prosthetic Socket Fit (PI: Hansen)

Department of Defense – Congressionally Directed Medical Research Programs
August 15, 2018 – August 14, 2021

Biomimetic Slope Adaptive Foot-Ankle Prosthesis (PIs: Iversen and Hansen)

Department of Defense – STTR Phase II
July 27, 2018 – July 26, 2021

Improving Footwear Options for Women and Men Veterans with Amputations (PI: Hansen)

Veterans Administration Rehabilitation Research and Development
July 1, 2018 – September 30, 2022

Effect of Constraint-Induced Gaming Therapy in Acute Care (PI: Hansen)

Veterans Administration Rehabilitation Research and Development
July 1, 2018 – June 30, 2021

Mounted Display Virtual Reality in the Treatment of Upper Extremity Function in Acute TBI Rehabilitation: A comparison study to conventional OT treatment alone. (PI: Hansen)

Minnesota Office of Higher Education SCI and TBI Grant Program
July 1, 2018 – June 30, 2021

Moisture Management Liner and Active Cooling System for Improving Residual Limb Skin Care Expansion (PI: Myers)

Department of Defense – Congressionally Directed Medical Research Programs
April 1, 2018 – March 31, 2021

New IV Clamp to Prevent Medication Errors (PI: Goldish)

Veterans Administration Innovation Spark Funding
April 1, 2018 – September 30, 2018

Camera System Development for Pressure Injury Screening in Veterans with SCI (PI: Olney)

Veterans Administration Rehabilitation Research and Development
January 1, 2018 – June 30, 2021

Development of a Foot-Ankle Prosthesis to Improve Physical Therapy Outcomes (PI: Koehler-McNicholas)

Veterans Administration Rehabilitation Research and Development
December 1, 2017 – May 31, 2021

The Bimodal Ankle: Development and Engineering Validation of a Hydraulic Actuator (PI: Colvin)
National Institute on Disability Independent Living and Rehabilitation SBIR
September 30, 2017 – March 31, 2018

Women's-Specific Footwear with Prosthetic Feet (PI: Russell Esposito)
Department of Defense – Congressionally Directed Medical Research Programs
September 29, 2017 – September 28, 2021

Biomimetic Slope Adaptive Foot-Ankle Prosthesis (PI: Sears)
Department of Defense – STTR Phase I
July 10, 2017 – January 9, 2018

Upper Body Dynamic Positioning System for Persons with SCI (PI: Goldish)
Minnesota Office of Higher Education
July 1, 2017 – June 30, 2019

Medical 3D Printing, System and Process for 3D Printing Prosthetic Components (PI: Hand)
Defense Logistics Agency
June 10, 2017 – June 9, 2019

Sensor System for Self-Management of Prosthetic Socket Fit (PI: Ferguson)
Veterans Administration Rehabilitation Research and Development
June 1, 2017 – December 31, 2019

Development of an Arm Cycle Ergometer for Supine Use (PI: Goldish)
University of Minnesota Office of Discovery and Translation
Clinical and Translational Science Institute
October 3, 2016 – June 30, 2018

A Prosthetic Foot Emulator to Optimize Prescription of Prosthetic Feet in Veterans and Service Members
with Leg Amputations (PI: Morgenroth)
Department of Defense – Congressionally Directed Medical Research Programs
September 1, 2016 – August 31, 2021

Active Cooling Socket for Improving Residual Limb Skin Comfort and Skin Care (PI: Myers)
Department of Defense – Congressionally Directed Medical Research Programs
September 1, 2016 – August 31, 2020

Muscle Powered Exoskeleton for Standing and Walking by People with Spinal Cord Injury (PI: Durfee)
Minnesota Office of Higher Education
August 3, 2016 – June 30, 2018

Mobile Manual Standing Wheelchair (PIs: Goldish and Hansen)
Veterans Administration Rehabilitation Research and Development
October 1, 2015 – September 30, 2019

Understanding Participation in Veterans with Amputations (PI: Erbes)
Veterans Administration Rehabilitation Research and Development
November 1, 2015 – October 31, 2017

Dynamic Corrective Force Device: A Balance Measure for Amputees (PI: Johansson)

Department of Defense – Congressionally Directed Medical Research Programs
September 2015 – September 2017

Development of a Personal Use Seating Pressure Measurement System (PI: Morrow)
Department of Defense – Congressionally Directed Medical Research Programs
September 2015 – September 2018

Microclimate Evaluation of Custom Seating Systems during Wheelchair Activities (PIs: Ferguson and Olney)
Tamarack Habilitations Incorporated
July 1, 2015 – January 31, 2016

Characterization of Prosthetic Feet for Weighted Walking in Service Members with Lower-Limb Amputations (PI: Schnall)
BADER Consortium, University of Delaware
April 1, 2015 – September 30, 2017

Development of Adaptive Prosthetic Ankle-Foot Systems (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
October 1, 2014 – September 30, 2018

Improving Energy Return and Residual-Limb Climate in Prostheses for High-Functioning Amputees (PI: Hansen)
Department of Defense – Congressionally Directed Medical Research Programs
September 30, 2014 – March 29, 2019

Powered Walk/Run Prosthetic Ankle (PI: Holgate)
National Institutes of Health
September 20, 2014 – August 31, 2017

Self-management to improve functioning following limb loss (PIs: Turner and Czerniecki)
Veterans Administration Rehabilitation Research and Development
July 1, 2014 – June 30, 2018

Bimodal Prosthetic Ankle-Foot System for Improved Balance and Mobility (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
April 1, 2014 – March 31, 2017

Further Development of a Manual Wheelchair for Improved Shoulder Biomechanics (PIs: Hansen and Goldish)
Mike Utley Foundation
January 1, 2014 – December 31, 2014

Testing and Refinement of a Hydraulic Adaptable Ankle-Foot Prosthesis (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
April 1, 2013 – March 31, 2016

Development of a Mobile Manual Standing Wheelchair (PIs: Goldish and Hansen)
Paralyzed Veterans of America
January 1, 2013 – December 31, 2014

Development of a Manual Wheelchair for Improved Shoulder Biomechanics (PIs: Hansen and Goldish)
Mike Utley Foundation
January 1, 2013 – December 31, 2013

Rocker Shoes for Natural Immobilization of the Ankle during Single Limb Support (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
October 1, 2012 – September 30, 2014

Functional Testing of a Hydraulic Adaptable Prosthetic Ankle-Foot System (PI: Hansen)
Fraunhofer Institute
October 1, 2012 – December 31, 2012

Pilot Study of the Tamarack WebSeat™ Custom Wheelchair Seating System (PIs: Hansen and Goldish)
Minnesota Veterans Medical Research and Education Foundation
July 30, 2012 – July 29, 2013

Development of a Passive Adaptive Ankle-Foot Prosthesis (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
May 1, 2011 – April 30, 2013

Biomechanical Evaluation of Adaptable Ankle-Foot Prostheses (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
October 1, 2010 – September 30, 2013

Effects of a Flat Prosthetic Foot Rocker Section on Standing and Walking (PI: Hansen)
Veterans Administration Rehabilitation Research and Development
May 1, 2009 – April 30, 2012

PEER-REVIEWED PUBLICATIONS

1. DeCarolis DD, Gravely A, Olney CM, Ishani A. Impact of Antihypertensive Drug Class on Outcomes in the SPRINT. *Hypertension*. Volume 79, Issue 5, May 2022; Pages 1112-1121. <https://doi.org/10.1161/HYPERTENSIONAHA.121.18369>.
2. Russell Esposito E, Hansen AH, Slater BS, Major MJ, Muschler K, Ikeda AJ, Erbes C (2022). Footwear Limitations in Women Prosthesis Users Relate to More than Preference, *Prosthetics Orthotics International*, in press.
3. Rich TL, Voss G, Fairhurst S, Matsumoto M, Brielmaier S, Koester K, Netoff TI, Hansen AH, Ferguson JE (2022). Feasibility testing of a novel prosthetic socket sensor system, *Disability and Rehabilitation*, DOI: 10.1080/09638288.2022.2093997.
4. Erbes CR, Ferguson J, Yang K, Koehler-McNicholas S, Polusny MA, Hafner BJ, Heinemann AW, Hill J, Rich T, Walker N, Weber M, Hansen AH (2022). Amputation-specific and generic correlates of participation among Veterans with lower limb amputation. *PLoS ONE* 17(7): e0270753. <https://doi.org/10.1371/journal.pone.0270753>.
5. Halsne EG, Curran CS, Caputo JM, Hansen AH, Hafner BJ, Morgenroth DC (2022). Emulating the effective ankle stiffness of commercial prosthetic feet using a robotic prosthetic foot emulator. *J Biomech Eng*. [in press]
6. Rich TL, Marth LA, Brielmaier SM, Kiecker JE, Vogsland RJ, Macedo FJ, Ferguson JE, Hansen AH (2022). Strategies for graded motor imagery for clients with phantom limb pain and cognitive impairment. *Prosthet Orthot Int*. Mar 25;. doi: 10.1097/PXR.000000000000125. [Epub ahead of print] PubMed PMID: 35333828.
7. Goldish G, Voss G, Morin S, Slater B, Johnson D, Fairhurst S, Nickel E, Stien C, McCracken P, Hanowski K, Froechtenigt A, Sauerbrey M, Sauerbrey B, Gebrosky B, Pearlman J, Hansen A

- (2022). Design refinement and evaluation of a mobile manual standing wheelchair. *Disabil Rehabil Assist Technol.* Feb 23;:1-8. doi: 10.1080/17483107.2022.2041737. [Epub ahead of print] PubMed PMID: 35196472.
8. Halsne EG, Turner AT, Curran CS, Hansen AH, Hafner BJ, Caputo JM, Morgenroth DC (2022). Effects of shear force reduction during mechanical testing and day-to-day variation on stiffness of commercial prosthetic feet: a technical note. *Prosthet Orthot Int.* Apr 1;46(2):206-211. doi: 10.1097/PXR.000000000000088. PubMed PMID: 35412527.
 9. Farrell T, McCracken P, Lloyd A, Falbo K, Walker N, Hansen A, Sauerbrey M, Johansson J, Rozell B, Lawrence K, Myers R, DiMatteo K, Hunt T, Dupnik M, Koehler-McNicholas S (2022). Development of an Active-Cooling System for Improving Residual-Limb Skin Care in Persons with Lower-Limb Amputation. *Proceedings of the 2022 Design of Medical Devices Conference.* DMD2022-1040. <https://doi.org/10.1115/DMD2022-1040>.
 10. Turner AT, Halsne EG, Caputo JM, Curran CS, Hansen AH, Hafner BJ, Morgenroth DC (2022). Prosthetic forefoot and heel stiffness across consecutive foot stiffness categories and sizes. *PLoS ONE* 17(5): e0268136. <https://doi.org/10.1371/journal.pone.0268136>.
 11. Ruxin TR, Halsne EG, Turner AT, Caputo JM, Curran CS, Hansen AH, Hafner BJ, Morgenroth DC (2022). Comparing Forefoot and Heel Stiffnesses Across Commercial Prosthetic Feet Manufactured for Individuals With Varying Body Weights and Foot Sizes. *Prosthetics & Orthotics International.* April 8, 2022 - Volume - Issue - 10.1097/PXR.000000000000131, doi: 10.1097/PXR.000000000000131.
 12. Kent JA, Carnahan KJ, Stine RL, Hansen AH, Russell Esposito E, Major MJ (2022). Effects of footwear on the gait kinematics of women with unilateral transtibial amputation: an observational case series. *Disability and Rehabilitation*, DOI: 10.1080/09638288.2021.2022782. Published online January 3, 2022. Impact factor: 3.033; PMID: Not yet available; Contribution: Conceptualization, Methodology, Editing. Number of citations: 0
 13. Ratner, ER, Goldish, G, Hansen, A, Bliss, J, Bornstein, AS, Gustavson, AM, Morin, S, & Wacek, A. "Power Assisted Walker: Rising Above Seated Mobility." *Proceedings of the 2022 Design of Medical Devices Conference.* 2022 Design of Medical Devices Conference. Minneapolis, MN, USA. April 11–14, 2022. V001T09A002. ASME. <https://doi.org/10.1115/DMD2022-1023>
 14. Olney CM, Ferguson JE, Voss G, Nickel E, Fairhurst S, Bornstein AS, Kemmer S, Stien C, Scheel K, Brenteson C, Goding A. Supine arm cycling during the post-flap recovery period for persons with spinal cord injuries: The multi-purpose arm cycle ergometer (M-PACE) safety and pilot testing. *The Journal of Spinal Cord Medicine.* 2021 Nov 3;1-8., DOI: 10.1080/10790268.2021.1975082
 15. Zabre-Gonzalez, EV, Riem, L, Voglewede, PA, Silver-Thorn, B, Koehler-McNicholas, SR, Beardsley, SA (2021) Continuous Myoelectric Prediction of Future Ankle Angle and Moment Across Ambulation Conditions and Their Transitions. *Frontiers in Neuroscience*, 15: 986. <https://doi.org/10.3389/fnins.2021.709422>; Impact Factor: 4.87; PMID: 34483828.
 16. Knight AD, Hendershot BD, Sleeman TJ, Dearth CL, Starker F, Schneider U, Koehler-McNicholas SR, Barrons K, Nickel E, Mion S, Ferguson J, Slater BS, Voss GO, Koester K, Hansen AH (2021). Toward improving residual limb climate within prostheses for persons with lower limb loss: a technical note. *Prosthetics Orthotics International*, Dec 17. doi: 10.1097/PXR.000000000000085. [Epub ahead of print]. Impact Factor: 1.895; PMID: N/A; Contribution: Conceptualization, Methodology, Data analysis, Manuscript editing, Manuscript review. Number of citations: 0
 17. Daly, S., J.T. Hanson, V. Mavanji, A. Gravely, S. Lewis, J. Ashe, Looft, John M., R.A. McGovern. Using kinematics to re-define the pull test as a quantitative biomarker of the postural response. doi: <https://doi.org/10.1101/2021.05.24.21257163>
 18. Nickel EA, Cataldo AY, Walker N, Santa Ana CK, Barrons K, Gravely A, Hand B, and Hansen AH (2021). Pilot test of a definitive prosthetic socket made with 3D printing technology. *Journal of Prosthetics and Orthotics*, November 25, 2021, doi: 10.1097/JPO.0000000000000405.
 19. Looft JM, Sjöholm R, Hansen AH, Fairhurst S, Voss G, Dellamano CA, Egginton J, Olney C, Goldish G (2021). User-centered design and development of a trunk control device for persons with spinal cord injury: A pilot study, *The Journal of Spinal Cord Medicine*, DOI:

- 10.1080/10790268.2020.1863897. Published online March 11, 2021.
20. Bernstein, JPK, Rich T, McKnight S, Mehr J, Ferguson J, & Seelye A. On-Road Driving Test Performance in Veterans: Effects of Age, Clinical Diagnosis, and Driving Pre-Screen Cognitive Measures. *J Safety Res*, 2021; 77:40-45. doi:10.1016/j.jsr.2021.01.005.
 21. Major MJ, Hansen AH, Russell Esposito E (2021) Focusing research efforts on the unique needs of women prosthesis users. *Journal of Prosthetics and Orthotics*, DOI: 10.1097/JPO.0000000000000353. Published online January 8, 2021.
 22. Elrod JM, Schnall B, Mauntel TC, Watson NL, Koehler-McNicholas SR, Nickel EA, Hansen AH, Dearth CL, Hendershot BD (2021). Biomechanical characterization of the foot-ground interaction among Service members with unilateral transtibial limb loss performing unconstrained drop-landings: Effects of drop height and added mass. *Journal of Biomechanics*, 2021 Oct 11;127:110701. doi: 10.1016/j.jbiomech.2021.110701. Epub 2021 Aug 20. Impact factor: 2.712; PMID: Not yet available; Contribution: Conceptualization, Methodology, Editing. Number of citations: 0
 23. Rich TL, Hicks BC, Dahl AL, Barrett BJ, Bedore B, Sullivan EK. Preliminary experiences in acute Occupational Therapy for in-patients with Coronavirus-19 (COVID-19): Three Case Studies. *Dis and Rehabilitation: Assistive Technology*, 2020; Dec 23. doi:10.1080/17483107.2020.1852326
 24. Brianna M. Goodwin, Christine M. Olney, John E. Ferguson, Andrew H. Hansen, Byron Eddy, Gary Goldish, Melissa M. Morrow & Tamara L. Vos-Draper (2021) Visualization of user interactions with a pressure mapping mobile application for wheelchair users at risk for pressure injuries, *Assistive Technology*, DOI: 10.1080/10400435.2020.1862938.
 25. Oddsson, L, Bisson, T, Cohen, H, Iloputaife, I, Jacobs, L, Kung, D, Lipsitz, LA, Manor, B, McCracken, P, Rumsey, Y, Wrisley, D, Koehler-McNicholas, S (In Press) Extended Effects of a Wearable Sensory Prosthesis on Gait, Balance Function and Falls After 26 Weeks of Use in Persons with Peripheral Neuropathy and High Fall Risk—The walk2Wellness Trial, *Frontiers in Aging Neuroscience*.
 26. Walker NR. (2020) Affirming LGBTQ+ identities in orthotics and prosthetics education, practice, and research. *Prosthetics and Orthotics International*. Oct;44(5);273-278. doi: 10.1177/0309364620954954.
 27. Nickel E, Voss G, Mueller E, Hansen A (2020) Improving Footwear Options for Persons with Lower Limb Amputations. *Proceedings of the 2020 Design of Medical Devices Conference, DMD2020-9044*, doi:https://doi.org/10.1115/DMD2020-9044.
 28. Koehler-McNicholas S, Voss G, Ficanha E, Loof J, Walker N, Colvin J, Hansen A, Wernke M (2020) A Hydraulic Bimodal Ankle to Improve Mobility and Stability for Prosthesis Users. *Proceedings of the 2020 Design of Medical Devices Conference, DMD2020-9061*, doi:https://doi.org/10.1115/DMD2020-9061.
 29. Slater BCS, Porter SB, DeVries AS, Johnson JR, Clabots CR, Hansen AH, Goldish GD (2020) A Novel Ergonomic Wheelchair Reduces Bacterial Hand Contamination. *Disability and Rehabilitation: Assistive Technology*, 2020 Jul 3; 1-4. doi: 10.1080/17483107.2020.1786735.
 30. Nickel E, Barrons K, Hand B, Cataldo A, Hansen A (2020) Three-dimensional printing in prosthetics: Method for managing rapid limb volume change. *Prosthetics and Orthotics International*, June 25, 2020 - Online publication, doi:10.1177/0309364620934340.
 31. Nickel EA, Barrons KJ, Owen MK, Hand BD, Hansen AH, DesJardins JD (2020) Strength testing of definitive transtibial prosthetic sockets made using 3D-printing technology. *Journal of Prosthetics and Orthotics*, Vol. 32, No. 4, 295-300. doi: 10.1097/JPO.0000000000000294.
 32. Schnall BL, Dearth CL, Elrod JM, Golyski PR, Koehler-McNicholas SR, Ray SF, Hansen AH, Hendershot BD (2020) A More Compliant Prosthetic Foot Better Accommodates Added Load while Walking among Service Members with Transtibial Limb Loss. *Journal of Biomechanics*, Vol. 98, 109395.
 33. Nickel E, Voss G, Morin S, Koehler-McNicholas S, Hendershot BD, Schnall BL, Gravely A, Barrons K, Mion S, Hansen A (2019) Impact Testing of Prosthetic Feet for High-Activity Prosthesis Users: A Pilot Study. *Journal of Prosthetics and Orthotics*, Vol. 31, No. 3. DOI: 10.1097/JPO.0000000000000252.
 34. Olney CM, Vos-Draper T, Egginton J, Ferguson J, Goldish G, Eddy B, Hansen AH, Carroll K,

- Morrow M (2019) Development of a comprehensive mobile assessment of pressure (CMAP) system for pressure injury prevention for veterans with spinal cord injury. *The Journal of Spinal Cord Medicine*, DOI: 10.1080/10790268.2019.1570437.
35. Hein E, Voss G, Hansen A, Goldish G (2019) Design of a Folding-Frame Ergonomic Wheelchair. *Proceedings of the 2019 Design of Medical Devices Conference*, DMD2019-3227. *Impact factor: N/A; PMID: N/A; Contribution: Methodology, Supervision, Editing. Number of citations: 0.*
 36. Nickel E, Hansen A, Voss G, Koehler-McNicholas S (2019). Development of an Ankle-Foot Prosthesis for Physical Therapy. *Proceedings of the 2019 Design of Medical Devices Conference*, DMD2019-3238.
 37. Koehler-McNicholas SR, Savvas Slater BC, Koester K, Nickel EA, Ferguson JE, Hansen AH. (2018) Bimodal ankle-foot prosthesis for enhanced standing stability. *PLoS ONE* 13(9): e0204512. <https://doi.org/10.1371/journal.pone.0204512>.
 38. Koehler-McNicholas SR, Nickel EA, Barrons K, Blaharski KE, Dellamano CA, Ray SF, Schnall BL, Hendershot BD, Hansen AH. (2018) Mechanical and dynamic characterization of prosthetic feet for high activity users during weighted and unweighted walking. *PLoS ONE*, 13(9): e0202884. <https://doi.org/10.1371/journal.pone.0202884>.
 39. Koehler-McNicholas SR, Cataldo A, Koch E, Rud B, Gude L, Brenteson C, Johnson D, Wigness B, Hauck J, Oddsson L, Hansen AH. (2018) Evaluation of a Novel Gait Training Device Using a Pressure Suit to Support Body Weight. *Proceedings of the 2018 Design of Medical Devices Conference*, DMD2018-6845.
 40. Fairhurst SR, McCool LC, Scheel KM, Stien CL, Brenteson CM, Hansen AH, Goldish GD, Voss GO, Ferguson JE. (2018) Development of a Rehabilitation Game for Individuals with Spinal Cord Injury using a User-Centered Design Process. *Proceedings of the 2018 Design of Medical Devices Conference*, DMD2018-6932.
 41. Olney CM, Simone A, Hanowski K, Rector TS, Goldish GD, Hansen AH, Ferguson JE. (2018) Microclimate evaluation of strap-based wheelchair seating systems for persons with spinal cord injury: A pilot study. *Journal of Tissue Viability*, Vol. 27, Number 3, 181-187. doi: 10.1016/j.jtv.2018.06.001.
 42. Owen E, Fatone S, Hansen A. (2018) Effect of Walking in Footwear with Varying Heel Sole Differentials on Shank and Foot Segment Kinematics. *Prosthetics Orthotics International*, Vol. 42, No. 4, 394-401, doi: 10.1177/0309364617728119.
 43. Olney C, Leestma J, Hansen A, Ferguson J, Murphy Kruse M, Goldish G (2017) Skin Self-Screening Camera for Veterans with Spinal Cord Injury. *Proceedings of the 2017 Design of Medical Devices Conference*. DMD2017-3330.
 44. Fairhurst SR, Koehler-McNicholas SR, Slater BCS, Nickel EA, Koester KA, Voss GO, Hansen AH, Ferguson JE (2017) Improving Automatic Control of an Ankle-Foot Prosthesis using Machine Learning Algorithms. *Proceedings of the 2017 Design of Medical Devices Conference*. DMD2017-3464.
 45. Koehler-McNicholas SR, Nickel EA, Medvec J, Barrons K, Mion S, Hansen AH (2017) The influence of a hydraulic prosthetic ankle on residual limb loading during sloped walking. *PLoS ONE*, doi: 10.1371/journal.pone.0173423, Published on March 9, 2017.
 46. Nickel E, Hansen A, Pearlman J, Goldish G. (2016) A Drive System to add Standing Mobility to a Manual Standing Wheelchair. *Assistive Technology*, 16:1-7, doi: 10.1080/10400435.2016.1165757.
 47. El-Khatib M, Ferguson J, Koehler-McNicholas S, Koester K, Hansen A (2016) Establishing the Feasibility of a Sensor-Based Sock Management System. *Journal of Medical Devices*. Vol. 10, No. 3, 030906-030906-2. doi:10.1114/1.4033740.
 48. Fairhurst S, Nickel E, Morin S, Goldish G, Hansen A (2016) Design of an Ergonomic Wheelchair Drive System for Improved Shoulder Biomechanics. *Journal of Medical Devices*. Vol. 10, No. 3, 030952-030952-2. doi:10.1115/1.4033766.
 49. Koehler-McNicholas SR, Nickel E, Schultz CJ, Hansen AH (2016) Rocker Shoes for Natural Immobilization of the Ankle during Single-Limb Support. *Journal of Medical Devices*. Vol. 10, No. 3, 030954-030954-2. doi:10.1115/1.4033767.
 50. Fairhurst SR, Lin X, Nickel EA, Hansen AH, Ferguson JE (2015) Sensor Based Control of a Bimodal

- Ankle–Foot Prosthesis with a Smart Phone Interface. *Journal of Medical Devices*. Vol. 9, No. 3, 030907.
51. Fairhurst SR, Simone AB, Ferguson JE, Hansen AH (2015) Portable Wireless Visuotemporal Cue Device for Gait Therapy. *Journal of Medical Devices*. Vol. 9, No. 3, 030909.
 52. Ferguson JE, Wittig BL, Payette M, Goldish GD, Hansen AH (2014) Pilot study of a strap-based custom wheelchair seating system in persons with spinal cord injury. *Journal of Rehabilitation Research and Development*, Vol. 51, No. 8, 1255-1264.
 53. Nickel E, Sensinger J, Hansen A (2014) Passive Prosthetic Ankle-Foot Mechanism for Automatic Adaptation to Sloped Surfaces. *Journal of Rehabilitation Research and Development*, Vol. 51, No. 5, 803-814.
 54. Koehler SR, Dhaher YY, Hansen AH (2014) Cross-validation of a portable, six-degree-of-freedom load cell for use in lower-limb prosthetics research. *Journal of Biomechanics*, Vol. 47, No. 6, 1542-1547.
 55. Meier M, Tucker K, Hansen A (2014) Development of Inexpensive Prosthetic Feet for High Heel Shoes using a Simple Shoe Insole Model. *Journal of Rehabilitation Research and Development*, Vol. 51, No. 3, 439-450.
 56. Hansen A, Bedore B, Nickel E, Hanowski K, Tangen S, Goldish G. (2014) Elastic Head Support for Persons with Amyotrophic Lateral Sclerosis (ALS). *Journal of Rehabilitation Research and Development*, Vol. 51, No. 2, 297-304.
 57. Hansen A, Nickel E, Medvec J, Brielmaier S, Pike A, Weber M (2014) Effects of a Flat Prosthetic Foot Rocker Section on Balance and Mobility. *Journal of Rehabilitation Research and Development*, Vol. 51, No. 1, 137-148.
 58. Komolafe O, Wood S, Caldwell R, Hansen A., Fatone S. (2013) Methods for Characterization of Mechanical and Electrical Prosthetic Vacuum Pumps. *Journal of Rehabilitation Research and Development*, Vol. 50, No. 8, 1069-1078.
 59. Hansen AH, Nickel E. (2013) Development of a Bi-Modal Ankle-Foot Prosthesis for Walking and Standing/Swaying. *ASME Journal of Medical Devices*, Volume 7, No. 3, 035001.
 60. Nickel E, Hansen A, Goldish G, Fairhurst F, Morin S (2013) Upper Limb Cycle Ergometer for Supine Exercise. *ASME Journal of Medical Devices*, Volume 7, No. 2, 020910.
 61. Meier MR, Hansen AH, Gard SA, McFadyen AK. (2012) Obstacle Course: Users' Maneuverability and Movement Efficiency when using the Otto Bock C-Leg and 3R60, and the CaTech SNS Prosthetic Knee Joints. *Journal of Rehabilitation Research and Development*, Vol. 49, No. 4, 583-596.
 62. Boutwell E, Stine R, Hansen A, Tucker K, Gard S. (2012) Effect of Prosthetic Gel Liner Thickness on Gait and Pressure Distribution within the Transtibial Socket. *Journal of Rehabilitation Research and Development*, Vol. 49, No. 2, 227-240.
 63. Nickel EA, Hansen AH, Gard SA. (2012) Prosthetic Ankle-Foot System that Adapts to Sloped Surfaces. *ASME Journal of Medical Devices*, Vol. 6, No. 1, 011006.
 64. Sinitski EH, Hansen AH, Wilken JM. (2012) Biomechanics of the Ankle-Foot System during Stair Ambulation: Implications for Design of Advanced Ankle-Foot Prostheses. *Journal of Biomechanics*, Vol. 45, 588-594.
 65. Gard SA, Su PF, Lipschutz RD, Hansen AH. (2011) The Effect of Prosthetic Ankle Units on Roll-Over Shape Characteristics During Walking in Persons with Bilateral Transtibial Amputations. *Journal of Rehabilitation Research and Development*, Vol. 48, No. 9, 1037-1048.
 66. Hansen AH, Wang CC. (2011) Effect of Rocker Shoe Radius on Oxygen Consumption Rate in Young Able-bodied Persons. *Journal of Biomechanics*, Vol. 44, 1021-1024.
 67. Dillon M, Fatone S, Hansen AH. (2011) The Effect of Prosthetic Design on the Center of Pressure Excursion in Partial Foot Prostheses. *Journal of Rehabilitation Research and Development*, Vol. 48, No. 2, 161-178.
 68. Klodd E, Hansen AH, Fatone S, Edwards ML. (2010) Effects of Prosthetic Foot Forefoot Flexibility on Gait of Unilateral Transtibial Prosthesis Users. *Journal of Rehabilitation Research and Development*, Vol. 47, No. 9, 899-910.
 69. Hansen AH, Childress DS. (2010) Investigations of Roll-over Shape: Implications for Design,

Alignment, and Evaluation of Ankle-Foot Prostheses and Orthoses. *Disability and Rehabilitation*, Vol. 32, No. 26, 2201-2209.

70. Klodd E, Hansen AH, Fatone S, Edwards ML. (2010) Effects of Prosthetic Foot Forefoot Flexibility on Oxygen Cost and Subjective Preference Rankings of Unilateral Transtibial Prosthesis Users. *Journal of Rehabilitation Research and Development*, Vol. 47, No. 6, 543-552.
71. Wang CC, Hansen AH. (2010) Response of Able-bodied Persons to Changes in Shoe Rocker Radius during Walking: Changes in Ankle Kinematics to Maintain a Consistent Roll-Over Shape. *Journal of Biomechanics*, Vol. 43, 2288-2293.
72. Hansen AH, Wang CC. (2010) Effective Rocker Shapes Used by Able-Bodied Persons for Walking and Fore-aft Swaying: Implications for Design of Ankle-Foot Prostheses. *Gait and Posture*, Vol. 32, 181-184.
73. Hansen AH, Meier MR. (2010) Roll-over Shapes of the Ankle-Foot and Knee-Ankle-Foot Systems of Able-Bodied Children. *Clinical Biomechanics*, Vol. 25, 248-255.
74. Hansen AH, Miff SC, Childress DS, Gard SA, Meier MR. (2010) Net External Energy of the Biologic and Prosthetic Ankle during Gait Initiation. *Gait and Posture*, Vol. 31, 13-17.

BOOK CHAPTERS

1. Starker F, Nickel E, Hansen A (2019) Methods to gather key performance indicators for prosthetic feet. In: *Modelling and Simulation in Sport and Exercise*. Edited by Arnold Baca and Jurgen Perl, Routledge Research in Sport and Exercise Science.
2. Hansen A, Starker F (2016) Prosthetic Foot Principles and Their Influence on Gait. In: *Handbook of Human Motion*. Edited by B. Müller, S.I. Wolf, Springer International Publishing AG. doi:10.1007/978-3-319-30808-1_74-1.
3. Hewitt A, Esler A, Stonach S, Zemanek L, Adler E, Arndt J, Cassidy J, Peyton R. & Rich T. (2016). Other Health Professions. In I.L. Rubin et. al. (Eds) *Health Care for People with Intellectual Disabilities Across the Lifespan*. Springer International Publishing, Switzerland. ISBN 978-3-319-18096-0.

ISSUED PATENTS

1. Ferguson J, Voss GO, Fairhurst SR, Hansen A. Devices, Systems, and Methods for Socket Fit Management. United States Patent 11,395,748. Issued on July 26, 2022.
2. Hansen AH, Nickel EA, Slater BCS, Fairhurst SR, Leestma J. Breathable Residual-Limb Socket System. United States Patent 11,324,612. Issued on May 10, 2022.
3. Multi-Speed Ergonomic Wheelchair And Devices And Methods Therefor, PCT 7/684,990, March 2, 2022
4. Hansen AH, Nickel EA. Ankle-Foot Prosthesis for Automatic Adaptation to Sloped Walking Surfaces. United States Patent 11,129,734. Issued on September 28, 2021.
5. Hansen AH, Koehler SR, Schultz CJ, Nickel EA. Rocker shoes, rocker shoe development kit and method. United States Patent 10,779,612. Issued on September 22, 2020.
6. Goldish G, Hansen A, Nickel E, Ferguson J, Fairhurst S. Exercise machine. United States Patent 10,744,362. Issued on August 18, 2020.
7. Hansen AH, Goldish GD, Nickel E. Collapsible manual wheelchair system for improved propulsion and transfers. United States Patent 10,695,239. Issued on June 30, 2020.
8. Hansen AH, Goldish GD. Manual wheelchair system for improved propulsion and transfers. United States Patent 10,588,795. Issued on March 17, 2020.
9. Hansen AH, Nickel EA. Ankle-foot prosthesis for automatic adaptation to sloped walking surfaces. United States Patent 10,376,388. Issued on August 13, 2019.
10. Hansen AH, Koehler SR, Schultz CJ, Nickel EA. Rocker shoes, rocker shoe development kit and method. United States Patent 10,292,452. Issued on May 21, 2019.

11. Hansen AH, Nickel EA. Ankle-foot prosthesis for automatic adaptation to sloped walking surfaces. United States Patent 10,105,243. Issued on October 23, 2018.
12. Nickel EA, Hansen AH, Breyette AS, Chen B, Huber K, Klabon R, LaSee TC, Voss WG, Morin SM. Foldable parallel bar apparatus. United States Patent 10,058,723. Issued on August 28, 2018.
13. Goldish G, Hansen A, Nickel E, Ferguson J. Exercise machine and method for use in a supine position. United States Patent 10,018,298. Issued on July 10, 2018.
14. Hansen AH, Goldish GD, Nickel E. Collapsible manual wheelchair system for improved propulsion and transfers. United States Patent 9,980,863. Issued on May 29, 2018.
15. Hansen AH, Goldish GD, Nickel E. Collapsible manual wheelchair system for improved propulsion and transfers. United States Patent 9,795,522. Issued on October 24, 2017.
16. Nickel EA. Urinary catheter assembly and method. United States Patent 9,789,284. Issued on October 17, 2017.
17. Goldish GD, Hansen A, Nickel E, Ferguson JE. System for screening skin condition for tissue damage. United States Patent 9,788,792. Issued on October 17, 2017.
18. Caldwell RJ, Hansen AH, Wood SM, Chen W, Radcliffe RA, Yngve KA, Kuhar BE, Nelson AJ, Nickel E. Vacuum Pump Systems for Prosthetic Limbs and Methods of Using the Same. United States Patent 9,757,255. Issued on September 12, 2017.
19. Hansen AH, Nickel EA. Ankle-Foot Prosthesis for Automatic Adaptation to Sloped Walking Surfaces. United States Patent 9,549,827. Issued on January 24, 2017.
20. Hansen AH, Goldish GD. Manual wheelchair system for improved propulsion and transfers. United States Patent 9,445,958. Issued on September 20, 2016.
21. Goldish, G., Hansen, A., Nickel, E. System for Screening the Skin Condition of the Plantar Surface of the Feet. United States Patent 9,301,688. Issued on April 5, 2016.
22. Starker, F., Schneider, U., Hansen, A., Childress, D., Pauli, J., Pauli, C. Artificial Ankle, Artificial Foot and Artificial Leg. United States Patent 9,204,979. Issued on December 8, 2015.
23. Goldish, G., Hansen, A., Nickel, E. Mobile Manual Standing Wheelchair. United States Patent 9,101,520. Issued on August 11, 2015.
24. Caldwell, R., Hansen, A., Wood, S., Chen, W., Radcliffe, R., Yngve, K., Kuhar, B., Nelson, A.J., Nickel, E. Vacuum Pump Systems for Prosthetic Limbs and Methods of Using the Same. United States Patent 9,066,822. Issued on June 30, 2015.
25. Goldish, G., Hansen, A. Mobile Manual Standing Wheelchair. United States Patent 9,044,369. Issued on June 2, 2015.
26. Hansen, A., Goldish, G. Manual Wheelchair System for Improved Propulsion and Transfers. United States Patent 8,905,421. Issued on December 9, 2014.
27. Hansen, A., Childress, D. Bi-modal Ankle-Foot Device. United States Patent 8,764,850. Issued on July 1, 2014.
28. Hansen, A., Nickel, E. Further Improvements to Ankle-Foot Prosthesis and Orthosis Capable of Automatic Adaptation to Sloped Walking Surfaces. United States Patent 8,696,764. Issued on April 15, 2014.
29. Hansen, A., Gard, S., Childress, D., Ruhe, B., Williams, R. Equilibrium-Point Prosthetic and Orthotic Ankle-Foot Devices. United States Patent 8,597,369. Issued on December 3, 2013.
30. Hansen, A., Sensinger, J. Passive Ankle-foot Prosthesis and Orthosis Capable of Automatic Adaptation to Sloped Walking Surfaces and Method of Use. United States Patent 8,480,760. Issued on July 9, 2013.

INVITED INTERNATIONAL PRESENTATIONS

1. Invited Speaker – Andrew Hansen, PhD, Australian Orthotic Prosthetic Association Webinar, Paediatric Prosthetics: Navigating Development Milestones and Prescription, April 19, 2017.
2. Invited Speaker – Andrew Hansen, PhD, Standing and Stance Phase Instability in Lower Limb Prosthetics. Within the symposium – Challenges in Lower-Limb Prosthetics. OTWorld 2016 World

- Congress, Stuttgart, Germany, May 3, 2016.
3. Invited Speaker – Andrew Hansen, PhD, Novel Passive Mechanical Approaches in Prosthetic Ankle-Foot Systems. Within the symposium – Meet the Experts – Advancements in Prosthetic Feet. OTWorld 2016 World Congress, Stuttgart, Germany, May 4, 2016.
 4. Invited Speaker – Andrew Hansen, PhD, International Society of Prosthetics and Orthotics World Congress, Effective Rocker Shapes for Walking and Standing – Implications in P&O, Within the symposium titled Orthotics Lower Limb – From Stable Standing to “Rock’n’Roll” Walking, Hyderabad, India, February 5, 2013.
 5. Invited Speaker – Andrew Hansen, PhD, International Society of Prosthetics and Orthotics World Congress, Effects of Rocker Shoe Radius on Ankle Movement, Roll-over Shape, and Oxygen Consumption Rate, Within the symposium – Pedorthics – Footwear – An Update of Research in Footwear, Hyderabad, India, February 5, 2013.
 6. Invited Keynote Speaker – Andrew Hansen, PhD, Orthotic Education & Training Trust Lecture, Roll-over Shape as a Tool in Prosthetics and Orthotics, International Society of Prosthetics and Orthotics United Kingdom Members Society 40th Anniversary Meeting, Sheffield, United Kingdom, September 28, 2012.
 7. Invited Speaker and Session Chair – Andrew Hansen, PhD, Passive Terrain Adaption – A Chicago Minneapolis Solution. Within the session titled Enabling Technologies for Improved Walking, Orthopädie + Reha-Technik 2012, Leipzig, Germany, May 15, 2012.

INVITED PRESENTATIONS

1. Invited Expert Panelist – Eric Nickel, MS, 2021 American Academy of Orthotists & Prosthetists Annual Meeting and Scientific Symposium, 3D Printing for Lower Limb Orthotics, May 5th, 2021.
2. Invited Speaker – Andrew Hansen, PhD, 16th Annual VA Breakout at the American Academy of Orthotists & Prosthetists National Meeting, Conducting Research in a VA P&O Clinic: Lessons Learned at the Minneapolis VA Regional Amputation Center, May 3, 2021.
3. Invited Speaker – Andrew Hansen, PhD, Amputation Research Interest Group, Puget Sound VA Health Care System, Development and Commercialization of Medical Devices for Veterans - Minneapolis Adaptive Design & Engineering (MADE) Program, November 6, 2020.
4. Invited Speaker – Rich TL, Mehr J, Ferguson J, Seelye A. “Exploring QI Methodology for Program Improvement”. VA National Evidenced Based Practice Webinar. April 15, 2020.
5. Invited Speaker – Billie Savvas Slater, MAEd, Northern Plains Chapter Meeting of the American Academy of Orthotists and Prosthetists, Vadnais Heights, Minnesota, September 13, 2019
6. Invited Speaker – Andrew Hansen, PhD, 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, Modular Prosthetic Feet to Improve Footwear Options for Women with Lower-Limb Amputations, Within the session – Prosthetic Needs of the Female Patient, Chicago, Illinois, March 4-7, 2020.
7. Invited Panelist – Nicole Walker, MS, CPO, 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, 3D Printing Point-Counterpoint, Chicago, Illinois, March 4-7, 2020.
8. Invited Speaker – Andrew Hansen, PhD, 4th Annual Orthotic and Prosthetic Innovative Technologies Conference, Prosthetic Ankle-Feet System for Improvement of Footwear Options for Persons with Lower-Limb Amputations, Ann Arbor, Michigan, May 17, 2019.
9. Invited Speaker – Rich TL, Bracken HJ, St. Jacques A. “Harnessing Neuroplastic Change through Rehabilitation”. Twin Cities Speech Language Pathology Group, November 4, 2019.
10. Invited Speaker – Rich TL, Marth L. “Good, Better, Best Practice: Leveraging OT student and capstone projects”. Minnesota Occupational Therapy Association’s Annual Conference. October 26, 2019.
11. Invited Speaker – Rich TL, Marth L, Silva M, Voydetich D. “AIIM”ing for best practice: Practical tools and models to facilitate evidenced based OT”. VA OT National Call. October 16, 2019.
12. Invited Speaker – Andrew Hansen, PhD, 65th Annual Meeting of the American College of Sports

- Medicine, Symposium: Optimizing Function and Performance after Lower Limb Amputation, Minneapolis, Minnesota, June 1, 2018.
13. Invited Speaker – Andrew Hansen, PhD, 44th Annual Meeting of the American Academy of Orthotists and Prosthetists, Prosthetic Foot Principles and Their Influence on Level Walking, New Orleans, Louisiana, February 17, 2018.
 14. Invited Speaker – Andrew Hansen, PhD, American Orthotic Prosthetic Association World Congress, Rocker Shoes for Reduction of Ankle Motion – Implications for Pain and Stability, Las Vegas, Nevada, September 9, 2017.
 15. Invited Speaker – Andrew Hansen, PhD, American Orthotic Prosthetic Association World Congress, Improving Socket Climate: A New Approach, Las Vegas, Nevada, September 7, 2017.
 16. Invited Keynote Speaker – Andrew Hansen, PhD, 11th Annual Global Educational Forum, Engineering, Education, and Technology in Human Development and Sport. University of Georgia, Athens, Georgia, March 28, 2017.
 17. Invited Speaker – Andrew Hansen, PhD, 39th Annual Meeting of the American Society of Biomechanics, Ankle-foot Prostheses for Improved Balance and Stability during Standing and Sloped Walking, within the symposium titled Wearable active and passive leg prostheses; Can we augment performance in people with an amputation? Columbus, Ohio, August 5-8, 2015.
 18. Invited Keynote Speaker – Andrew Hansen, PhD, 2nd International Workshop on Virtual and Augmented Assistive Technology, IEEE Virtual Reality 2014, Minneapolis, Minnesota, March 30, 2014.
 19. Invited Speaker – Andrew Hansen, PhD, Grand Rounds – Walter Reed National Military Medical Center, Bethesda, Maryland, November 21, 2013.
 20. Invited Speaker – Andrew Hansen, PhD, 2013 Orthotics and Prosthetics World Congress, American Orthotic Prosthetic Association, Orlando, Florida, September 18-21, 2013.
 21. Invited Speaker – Andrew Hansen, PhD, Division of Rehabilitation Science, Department of Rehabilitation Medicine, University of Minnesota, Development and Commercialization of Medical Devices for Veterans: Minneapolis Adaptive Design & Engineering (MADE) Program, Minneapolis, Minnesota, May 10, 2021
 22. Invited Speaker – Andrew Hansen, PhD, Northern Plains Chapter Meeting of the American Academy of Orthotists and Prosthetists, Vadnais Heights, Minnesota, September 12, 2019.
 23. Invited Speaker – Andrew Hansen, PhD, Northern Plains Chapter Meeting of the American Academy of Orthotists and Prosthetists, Vadnais Heights, Minnesota, October 4, 2018.
 24. Invited Panelist – Andrew Hansen, PhD, Graduate Women in Biomedical Engineering Career Panel, University of Minnesota, April 4, 2018.
 25. Invited Speaker – Andrew Hansen, PhD, Minnesota Spinal Cord and Traumatic Brain Injury Research Symposium, Development of SCI Technologies at the Minneapolis Adaptive Design & Engineering Program, January 31, 2018.
 26. Invited Speaker – Andrew Hansen, PhD, Clinician-Researcher Collaboration. Minneapolis VA Health Care System Monthly Research Conference, January 9, 2018.
 27. Invited Speaker – Andrew Hansen, PhD, The Northern Plains Chapter of the American Academy of Orthotists and Prosthetists Annual Fall Seminar, Current Prosthetics Research at the Minneapolis VA, Vadnais Heights, Minnesota, September 11, 2015.
 28. Invited Speaker – Andrew Hansen, PhD, Rehabilitation Seminar Series, The Rehabilitation Science Program, University of Minnesota, Minneapolis, Minnesota, November 21, 2011.
 29. Invited Speaker – Christine Olney, PhD, 2011. Audrey Nelson Lecture - Repositioning: What Nurses believe about the Standard of Care and the effects of the interdisciplinary team. Presented at the ASCIP National Conference, Sept 5, 2011.
 30. Invited Speaker – Andrew Hansen, PhD, Northern Plains Chapter Meeting of the American Academy of Orthotists and Prosthetists, Vadnais Heights, Minnesota, September 9, 2011.
 31. Invited Speaker – Andrew Hansen, PhD, Sister Kenny Rehabilitation Institute, Minneapolis, Minnesota, Biologic Ankle-Foot Biomechanics as a Guide for Design of Prosthetic Ankle-Foot Devices, June 6, 2011.
 32. Invited Speaker – Andrew Hansen, PhD, Region 4 Amputee System of Care Conference, Research:

Development of New Prosthetic Feet, Bloomington, Minnesota, April 13-15, 2010.

CONFERENCE PRESENTATIONS

1. Myers, RT, Falbo, K, Lloyd, A, Walker, N, Hansen, A, Johansson, J, Farrell, T, Rozell, B, Lawrence, K, DiMatteo, K, Dupnik, M, Jewhurst, K, Koehler-McNicholas, SR (2022) Pilot Clinical Verification of Active Cooling System for Improved Residual Limb Health (Podium Presentation) Military Health System Research Symposium, September 12-15, Kissimmee, FL, USA.
2. McCracken, PJ, Falbo, K, Lloyd, A, Walker, N, Sauerbrey, M, Hansen, A, Farrell, T, Johansson, J, Rozell, B, Lawrence, K, DiMatteo, K, Myers, R, Koehler-McNicholas, SR (2022) An Active Cooling System for Improving Residual-Limb Skin Care: Results of Human Subject Testing (Podium Presentation) 48th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, March 2-5, Atlanta, GA, USA.
3. Farrell, T, McCracken, P, Lloyd, A, Falbo, K, Walker, N, Hansen, A, Sauerbrey, M, Johansson, J, Rozell, B, Lawrence, K, Myers, R, DiMatteo, K, Hunt, T, Dupnik, M, Koehler-McNicholas, S (2022) Development of an Active-Cooling System for Improving Residual-Limb Skin Care in Persons with Lower-Limb Amputation (Podium Presentation) Design of Medical Devices Conference, April 11-14, Minneapolis, MN, USA.
4. McCracken, P, Oddsson, LIE, Danzl, L, Jacobs, L, Lloyd, AM, Rumsey, Y, Koehler-McNicholas, SR (2022) Fall Risk Management in Veterans with Peripheral Neuropathy—A New Wearable Device, (Podium Presentation), American Physical Therapy Association Combined Sections Meeting, February 2-5, San Antonio, TX, USA.
5. McCracken, PJ, Falbo, K, Lloyd, A, Nickel, E, Voss, G, Hansen, A, Koehler-McNicholas, SR (2022) Biomechanical Testing of a Novel Ankle-Foot Prosthesis to Improve Physical Therapy Outcomes (Podium Presentation), American Physical Therapy Association Combined Sections Meeting, February 2-5, San Antonio, TX, USA.
6. Morgenroth, D.C., Halsne, E.G., Turner, A.T., Ruxin, T.R., Hansen, A. H., Walker, N.R., Behrens, K.M., Lloyd, A.M., Childers, L.W., Brousseau, L. M., Caputo J. M., Curran, C.S., Hafner, B.J. A Multi-site randomized, cross-over study for prosthetic foot prescription. Abstract submitted to the American Academy of Orthotics and Prosthetics Annual Meeting, March, 2022.
7. Morgenroth, D.C., Halsne, E.G., Turner, A.T., Hansen, A. H., Walker, N.R., Caputo J. M., Curran, C.S., Hafner, B.J., Ruxin, T.R. A Multi-site randomized, cross-over study of a “test-drive” strategy for prosthetic foot prescription. Submitted to the Association of Academic Physiatrists Annual Meeting, February, 2022.
8. Walker, N.C., Hansen, A.H., Halsne, E.G., Turner, A.T., Ruxin, T.R., Behrens, K.M., Lloyd, A.M., Childers, L.W., Brousseau, L. M., Caputo, J.M., Hafner, B.J., Morgenroth, D.C. Prosthetic foot preference associations with performance-based and patient-reported outcomes in persons with transtibial amputation. Abstract submitted to the American Academy of Orthotics and Prosthetics Annual Meeting, March, 2022.
9. Ruxin, T.R., Halsne, E.G., Turner, A.T., Hansen, A. H., Walker, N.R., Behrens, K.M., Lloyd, A.M., Childers, L.W., Brousseau, L. M., Caputo J. M., Hafner, B.J., Morgenroth, D.C. An experiential foot preference survey for assessing real-time user input when comparing prosthetic feet. Abstract submitted to the American Academy of Orthotics and Prosthetics Annual Meeting, March, 2022.
10. Wacek, AL & Vos-Draper T. Individualized Pressure Injury Prevention: Meaningful Feedback About Day-long Pressure Distribution for Wheelchair Users and Providers. Academy of Neurologic Physical Therapy Annual Conference. Minneapolis, MN 10/14/2022. Presentation Session.
11. McCracken, PJ, Falbo, K, Lloyd, A, Walker, N, Sauerbrey, M, Hansen, A, Farrell, T, Johansson, J, Rozell, B, Lawrence, K, DiMatteo, K, Myers, R, Koehler-McNicholas, SR (2021) Development of Moisture Management Liner and Active Cooling System for Improving Residual Limb Skin Care

- (Virtual Presentation), American Orthotic and Prosthetic Association National Assembly, September 16-18, Boston, MA, USA.
12. Olney, CM., Stein, C., Scheel, K., & Goding. (2021). From Clinical Idea to Licensed Product –the M-PACE Story. SCI/D Midwest Regional Hub & Spoke Conference, June 16, presented virtually from Minneapolis, MN.
 13. Olney, CM., Stein, C., Scheel, K., & Goding. (2021). From Clinical Idea to Licensed Product – the M-PACE Story. Presented for Minneapolis VA Extended Care & Rehabilitation and Spinal Cord Injury and Disorders Grand Rounds, Feb.18, Minneapolis, MN.
 14. Bornstein, AS. (2021). The Influence of Human Factors and Ergonomics on Data-Driven Design Criteria for a Handheld Skin Screening Camera System. Human Factors and Ergonomics Society Health Care Symposium.
 15. Halsne, E. G., Turner, A. T., Hansen, A. H., Walker, N. R., Childers, W. L., Brousseau, L. M., Caputo, J. M., Curran, C. S., Hafner, B. J., Ruxin, T. R., Lloyd, A. M., Morgenroth, D. C. Predicting prosthetic foot preference, mobility, and balance using a robotic prosthetic foot emulator. Military Health System Research Symposium, Kissimmee, FL, August 2021.
 16. Basten A, Walker N, Looft J. Is the Clinician Being Left Behind in the Age of Enlightenment for Exoskeleton Technology? Joint Meeting of the Human Movement Variability and the Great Plains Biomechanics Conferences. May 2021; virtual platform due to pandemic.
 17. NR Walker. Affirming LGBTQ+ Identities in Human Participants Research. Presented at the Annual National Organization of Research Development Professionals (NORDP) Research Development Conference. May 2021; virtual platform due to pandemic.
 18. Morgenroth DC, Halsne EG, Turner AT, Walker NR, Hansen AH, Caputo JM, Curran CS, Hafner BJ. (2021) A Randomized, Cross-over Predictive Validity Study of a Novel Test-Drive Strategy for Prosthetic Foot Prescription. International Society of Prosthetists and Orthotists World Congress; accepted for oral presentation at virtual conference (due to pandemic), November.
 19. Turner A, Halsne E, Hansen A, Walker N, Behrens K, Childers WL, Brousseau LM, Caputo J, Curran C, Hafner B, Morgenroth D. (2020) Use of a robotic prosthetic foot emulator to predict prosthetic foot preference. 2020 Military Health System Research Symposium. Kissimmee, FL. August 24-27.
 20. Halsne EG, Turner AT, Curran C, Caputo J, Hansen AH, Hafner BJ, Morgenroth DC. (2020) Measured forefoot stiffness across prosthetic foot stiffness categories. American Society of Biomechanics Annual Conference. Virtual conference. August 4-7.
 21. Behrens KM, Walker NR, Hansen AH, Brosseau L, Childers WL, Caputo J, Curran C, Hafner B, Halsne E, Turner A, Morgenroth D. (2020) Determining the relationship between prosthetic foot preference and self-reported and performance-based outcome measures in Veterans and Service Members with transtibial amputations. American Orthotic and Prosthetic Association (AOPA) National Assembly. Virtual assembly. Sept 9-12.
 22. Olney, C.& Goldish, G. (2020). Improving Skin Screening Capabilities for Veterans with Spinal Cord Injury and Disorders. Presented virtually to the ASCIP National Conference, September 13, 2020.
 23. Brousseau L, Childers WL, Hansen A, Walker N, Behrens K, Caputo J, Curran C, Hafner B, Turner A, Halsne E, Morgenroth D. “Long-Term Predictability of Prosthetic Foot Preference in Veterans and Service Members with Lower Limb Amputations Following In-Laboratory and Community Testing.” George E. Omer Jr Research Symposium. June 2020; San Antonio, Texas. Winner of the Milton S. Thompson MD Award for Most Outstanding Research in the Field of Neuromusculoskeletal Rehabilitation.
 24. Walker NR, Nickel EA, Santa Ana CK, Cataldo AY, Laine Dyreson MP, Gravely AA, Hand BD, Hansen AH (2020) Comparison of 3D Printed and Traditionally Fabricated Prosthetic Sockets for Users with Transtibial Amputations. 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, Chicago, Illinois, March 4-7.
 25. Laine Dyreson M, Walker N, Fatone S, Caldwell R, Hand B, Hansen A, Nickel E (2020) Preliminary Investigation of 3D Printed Flexible Prosthetic Sockets. 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, Chicago, Illinois,

- March 4-7.
26. Libertore AG, Nickel EA, Lloyd A, Voss G, Hansen AH, Koehler-McNicholas SR (2020) An Adjustable Range-of-Motion Prosthetic Ankle-Foot System. 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, Chicago, Illinois, March 4-7.
 27. Slater B, Koester, K. (2020) Development of the Prosthetic Sock Management Tool, 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, Chicago, Illinois, March 4-7.
 28. Halsne E, Turner A, Hansen A, Caputo J, Curran C, Morgenroth D. (2019) Comparison of linear stiffness across types of prosthetic feet. 2019 American Orthotic and Prosthetic Association National Assembly, San Diego, CA; Sep 25-28.
 29. Turner A, Halsne E, Hansen A, Caputo J, Curran C, Morgenroth D. (2019) Measured heel stiffness across prosthetic foot stiffness categories. 2019 American Orthotic and Prosthetic Association National Assembly, San Diego, CA; Sep 25-28.
 30. Slater BS, Koester KA. (2019) Development of the Prosthetic Sock Management Tool. 2019 American Orthotic and Prosthetic Association National Assembly, San Diego, CA; Sep 25-28.
 31. Goldish G, Voss G, Morin S, Slater B, Johnson D, Fairhurst S, Nickel E, Stien C, McCracken P, Hanowski K, Sauerbrey M, Sauerbrey B, Hansen A (2019) Refinement and Initial Evaluation of a Mobility-in-Standing Manual Wheelchair. Paralyzed Veterans of America Summit and Expo, Orlando, Florida, August 15-17.
 32. Goldish, G. and Olney, C. (2019). A Trunk Control Device Prototype to Improve Functional Workspace and Offloading for Persons with Spinal Cord Injury (SCI). Presented at the Design of Medical Devices Conference, Minneapolis, MN on April 16, 2019.
 33. Slater BS, Koester KA. The Veteran Amputee: A Prosthetic Sock Management Tool for Fit and Comfort. VHA Innovators Network Demo Day- National Press Club. 2018 August; Washington DC, United States of America.
 34. Olney C, Fairhurst S, Voss G, Egginton J, Looft J, Fay B, Hansen A, Goldish G. (2019). Trunk Control System for Persons with Spinal Cord Injury or Disorder. Paralyzed Veterans of America Summit and Expo, Orlando, FL, August 15-17.
 35. Nickel EA, Barrons KJ, Owen MK, Hand BD, Hansen AH, and DesJardins JD. (2019) Strength testing of definitive 3D-printed transtibial prosthetic sockets. Annual Meeting and Scientific Symposium of the American Academy of Prosthetists & Orthotists. Orlando, Florida. March 6-9, 2019.
 36. Olney C, Vos-Draper T, Ferguson J, Eddy B, Hansen A, Goldish G, Egginton J, Morrow M. (2018). Mobile Pressure Mapping Application Development for Wheelchair Users with Spinal Cord Injuries: User Centered Design. Paralyzed Veterans of America Summit and Expo, Dallas, TX, August 29.
 37. Goldish, G., Olney, C., Voss, G. (2018). Development and Testing of a Supine Arm Exercise System for Persons with Spinal Cord Injuries. Presented at the 2018 Design of Medical Devices Conference, April 9-12, 2018. Minneapolis, MN.
 38. Erbes, C. R., Ferguson, J. E., Koehler-McNicholas, S. R., Polusny, M. A., Yang, K., & Hansen, A.
 39. H. (2018). Evaluating participation in 235 veterans with amputation. Paper presented at the American Academy of Orthotists and Prosthetists Annual Meeting, New Orleans, Louisiana, February 17.
 40. Nickel EA, Morin S, Koehler-McNicholas S, Hendershot B, Schnall B, Hansen AH (2017) Impact Test for Prosthetic Feet. American Orthotic Prosthetic Association World Congress, September 6-9, Las Vegas, Nevada.
 41. Golyski PR, Schnall BL, Hansen AH, Koehler-McNicholas SR, Dearth CL, Hendershot BD (2017) Biomechanical Outcomes of Prosthetic Foot Stiffness during Weighted Walking. Annual Meeting of the American Society of Biomechanics, August 8-11, Boulder, Colorado.
 42. Koehler-McNicholas SR, Nickel EA, Barrons K, Blaharski KE, Schnall BL, Hendershot BD, Hansen AH (2017) Characterization of Prosthetic Feet for Weighted Walking. Annual Meeting of the American Society of Biomechanics, August 8-11, Boulder, Colorado.
 43. Fatone S, Owen E, Hansen A (2017) The Effect of Walking in Footwear with Varying Heel Sole

- Differentials on Shank and Foot Segment Kinematics. 16th World Congress of International Society of Prosthetics and Orthotics, May 8-11, Cape Town, South Africa.
44. Koehler-McNicholas SR, Slater BCS, Nickel EA, Koester KA, Hansen AH (2017) A Double-Blind Study of a Bimodal Ankle-Foot Prosthesis for Improved Balance and Mobility. 43rd Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 1-4, Chicago, Illinois.
 45. Barrons KJ, Hansen AH, Postema K, Koehler-McNicholas SR (2017) Biomechanical Effects of Adding a Flat Region to Constant Radius Rocker Bottom Shoes. 43rd Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 1-4, Chicago, Illinois. Morrow M, Grahn P, Vos-Draper T, Gill M, Hansen A, Zhao K (2016) Advanced Technologies in SCI and Amputee Rehabilitation: What's on the Horizon? American Congress of Rehabilitation Medicine 93rd Annual Conference, November 2-4, Chicago, Illinois.
 46. El-Khatib M, Ferguson J, Koehler-McNicholas S, Koester K, Hansen A (2016) Establishing the Feasibility of a Sensor-Based Sock Management System. Design of Medical Devices Conference, April 11-14, Minneapolis, Minnesota.
 47. Hansen A, Nickel E, Fairhurst S, Lin X, Koehler S, Ferguson J (2014) Microprocessor-Controlled Bimodal Ankle-Foot System for Enhanced Stability and Mobility. American Orthotics Prosthetics Association's National Assembly, September 4-7, Las Vegas, Nevada.
 48. Nickel E, Sensinger J, Hansen A (2014) Prosthetic Ankle-Foot System with Step-Specific Adaptation. 40th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, February 26-March 1, Chicago, Illinois.
 49. Hansen A, Bedore B, Nickel E, Hanowski K, Tangen S, Goldish G. (2014) Elastic Head Support for Persons with Dropped Head Syndrome – Case Series in Veterans with ALS. 40th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, February 26- March 1, Chicago, Illinois.
 50. Koehler SR, Nickel EA, Barrons KJ, Medvec JA, Mion SG, Hansen AH (2014) Evaluation of the Echelon Ankle for Sloped Walking. 40th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, February 26-March 1, Chicago, Illinois.
 51. Hansen A, Bedore B, Nickel E, Hanowski K, Tangen S, Goldish G. (2013) The Elastic Head Support – A Case Series Study. Minnesota Physical Therapy Association Fall Conference. November 15 and 16, Duluth, MN.
 52. Hansen A, Nickel E, Goldish G, Bedore B, Hanowski K, Tangen S (2013) A Collaborative Team Approach to the Development of a New Rehabilitation Assistive Device. Minneapolis VA Extended Care & Rehabilitation and Spinal Cord Injury and Disorders Grand Rounds, October 17, Minneapolis, MN.
 53. Hansen A, Nickel E, Morin S, Sensinger J (2013) Prosthetic Ankle-Foot System that Adapts to Ramps on Every Step. Accepted for 14th World Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
 54. Hansen A, Dawson J, Lahr G, Smith N, Sass M, Castle D, Morin S, Nickel E (2013) Locking Single- Axis Prosthetic Ankle for Stability During Standing. Accepted for 14th World Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
 55. Berman D, Agrawal V, Gailey R, Hansen A (2013) The revised Shape&Roll Prosthetic Foot for use in low-income countries - Implementation in Haiti. Accepted for 14th World Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
 56. Fatone S, Wood S, Komolafe O, Caldwell R, Chen W, Sun C, Hansen A (2013) Socket/Liner Interface Volume and Vacuum Pressure Decay in Persons with Transfemoral Amputations. Accepted for 14th World Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
 57. Komolafe OA, Caldwell R, Tucker K, Sun C, Chen W, Hansen AH, Fatone S (2013) Stress Analysis of Different Rigid Frame Designs within a Flexible Transfemoral Prosthetic Socket. Accepted for 14th World Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
 58. Hansen A, Brielmaier S, Medvec J, Pike A, Nickel E, Merchak P, Weber M (2012) Prosthetic Foot

- with Adjustable Stability and its Effects on Balance and Mobility. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
59. Hansen A, Nickel E, Morin S, Sensinger J (2012) Update on an Ankle-Foot Prosthesis that Self-Aligns to Sloped Surfaces. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
 60. Hansen A, Dawson J, Lahr G, Smith N, Sass M, Castle D, Morin S, Nickel E (2012) A Bimodal Ankle-Foot Prosthesis for Standing and Walking. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
 61. Wood S, Caldwell R, Chen W, Sun C, Hansen A, Fatone S (2012) Socket/Liner Interface Volume and Vacuum Pressure Decay in Persons with Transfemoral Amputations. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
 62. Wood S, Caldwell R, Chen W, Sun C, Hansen A, Komolafe O, Fatone S (2012) Characterization of Mechanical and Electrical Vacuum Pumps for Use in Vacuum-Assisted Suspension. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
 63. Komolafe O, Caldwell R, Tucker K, Sun C, Chen W, Hansen A, Fatone S (2012) Stress Analysis of Different Rigid Frame Designs within a Flexible Transfemoral Prosthetic Socket. 38th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 21-24, Atlanta. Georgia.
 64. Harrow JJ, Lind J, Gutmann J, Mutolo S, Olney C, Powell-Cope GM. Practice Variation in Post-Operative Care of Pressure Ulcers in SCI. Presented at: Academy of Spinal Cord Injury Professionals Annual Meeting; 2011 Sep 6; Las Vegas, NV.
 65. Gard SA, Su PF, Lipschutz RD, Hansen AH (2011) The Effect of Prosthetic Ankle Units on Roll-Over Shape Characteristics During Walking in Persons with Bilateral Transtibial Amputations. 37th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 16-19, Orlando, Florida.
 66. Hansen AH, Wang CC (2011) Rockers for Standing, Swaying, and Walking: Implications for Prosthetic Ankle Design. 37th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, March 16-19, Orlando, Florida.
 67. Stine RL, Hansen AH, Tucker KA, Boutwell EV, Edwards ML, Gard SA (2010) A Study of the Effects of Gel Liner Thickness on In-Socket Residual Limb Pressures in Trans-Tibial Prosthesis Users. 12th Biennial ESM2010 Conference on Dynamic Load Distribution in Biomechanics, August 14-17, Providence, Rhode Island.
 68. Hansen AH, Klodd E, Meier MR, Fatone S, Edwards ML, Sessoms P, Childress, DS (2010) Use of experimental prosthetic feet to improve understanding of prosthetic foot function for lower limb prosthesis users. 13th World Congress of the International Society for Prosthetics and Orthotics, May 10-15, Leipzig, Germany.
 69. Hansen AH, Wang CC (2010) Ankles Adapt to Different Shoe Rockers Resulting in Consistent Ankle-foot Roll-over Shapes. Center for Clinical Movement Science Research Day, April 16, Minneapolis, Minnesota.
 70. Hansen A, Klodd E, Meier M, Fatone S, Edwards M, Sessoms P, Childress D (2010) Use of Experimental Prosthetic Feet to Study the Effects of Prosthetic Foot Features on Gait of Prosthesis Users. 36th Annual Meeting and Scientific Symposium of the American Academy of Orthotists and Prosthetists, February 24–27, Chicago, Illinois.

CONFERENCE POSTERS

1. Juan Cave II, CPO, MSPO, Amber Wacek, DPT, John M. Looft, PhD. Rapid Gait: Re-Aligning Traditional Prosthetic Alignment with MOCAP, 2022 VISN 23 Research Symposium, Minneapolis, MN, United States.

2. Juan Cave II CPO, MSPO & Katherine Muschler, BA & John Looft, PHD & Andrew Hansen, PHD & Andrea Cutti, PHD & Stefania Fatone, PHD. Comparing Socket Casting Techniques on Comfort and Time: Implications for New Prosthetists. 2022 Minneapolis VA Health Care System Research Day, Minneapolis, MN United States
3. Rich TL, Falbo JK, Phelan H, Krebs EE, Finn JA, Gravely AA, Matsumoto ME, Olney CM, Kiecker J, Hansen AH. “Examining multiple perspectives to inform the path forward in treatment of phantom limb pain”. VISN 23 Research Symposium, August 10, 2022.
4. John Looft, PhD, Juan Cave II, MSPO, CPO, LPO, and Amber Wacek, DPT, NCS. Motion Analysis: Capturing and Promoting Personalized Veteran Care. VISN 23 Grand Rounds, Minneapolis, MN Unites States
5. Rich TL, Falbo JK, Phelan H, Krebs EE, Finn JA, Gravely AA, Matsumoto ME, Olney CM, Kiecker J, Hansen AH. “Examining multiple perspectives to inform the path forward in treatment of phantom limb pain”. VA Research Day, May 12, 2022.
6. Kierra Falbo, Brogan Comstock, Juan Cave II, Amber Wacek, Matt Suerbrey, John Looft, Andrew Hansen, Brad Hendershot, and Jason Wilken. AFOCE: Comparative Effect of Commercially Available Custom Dynamic Orthoses. 2022 Minneapolis VA Health Care System Research Day, Minneapolis, MN United States.
7. Wacek, A, Cave, JE II, Sauerbrey, M, Looft JM. (2022, May 12). Episodic Rehabilitation in Chronic Lower Limb Loss: Revisiting Rehabilitation Potential [Poster Abstract]. 2022 Minneapolis VA Health Care System Research Day, Minneapolis, MN United States.
8. Wacek, A, Olney, C. (2022, August 10). Collaborative Team Leads Pressure Injury Research and More at the Minneapolis VA Sprinal Cord Injury Center and Beyond. [Poster Abstract] 2022 VISN 23 Research Symposium, Minneapolis, MN, United States.
9. Bornstein, A.S., Wacek, A., Truty, T., Kemmer, S., Fairhurst, S., Brown, R., Anderson, M., Hicks, B., Stein, C., Eddy, B., Goldish, G., Gravely, A., Barrett, B., Hansen, A.H., Morrow, M., Vos-Draper, T., Olney, C.M. (2022, May 12). AW-Shift! Visualizing Pressure Distribution for Wheelchair Users and Their Clinicians Anywhere, Anytime [Poster Abstract]. 2022 Minneapolis VA Health Care System VA Research Day, Minneapolis, MN, United States.
10. Mavanji V, Comstock BC, Sauerbrey MD, McCracken P, Froeichtenigt A, Wacek AL, Hansen AH, Goldish G & Looft JM. (2022, May 12). Veteran Feedback and Testing of a Lightweight Ergonomic Wheelchair [Poster Abstract]. 2022 Minneapolis VA Health Care System VA Research Day, Minneapolis, MN, United States.
11. Falbo KJ, Comstock BC, Cave JE, Wacek AL, Sauerbrey MD, Looft JM, Hansen, AH, Hendershot BD, Wilken JM(2022 May 12).AFOCE: Comparative Effect of Commercially Available Custom Dynamic Orthoses [Poster Abstract]. 2022 Minneapolis VA Health Care System VA Research Day, Minneapolis, MN, United States.
12. Oddsson, L, Bisson, T, Cohen, H, Jacobs, L, Kung, D, Lipsitz, L, McCracken, P, Rumsey, Y, Wrisley, D, Koehler-McNicholas, S (2021) Walkasins—A Wearable Device That Can Manage Fall Risk in Persons with Diabetic Peripheral Neuropathy (Poster Presentation), Diabetic Foot Conference, September 29-October1, Los Angeles, CA, USA.
13. McCracken, PJ, Falbo, K, Lloyd, A, Walker, N, Sauerbrey, M, Koehler-McNicholas, SR (2021) Development of Moisture Management Liner and Active Cooling System for Improving Residual Limb Skin Care (Virtual Poster Presentation), Research Week, Minneapolis VA Health Care System, May 8-10, Minneapolis, MN, USA.
14. Vos Draper T, Bornstein AS, Fairhurst S, Kemmer S, Eddy B, Goldish G, Gravely A, Hansen AH, Barrett B, Morrow M, Olney CM. (2021). Data Driven Development of a Clinical Tool for Assessing Weight Shift Performance in a High Risk Population of Wheelchair Users. National Pressure Injury Advisory Panel NPIAP 2021 Virtual Annual Conference.
15. Rich TL, Gravely A, Matsumoto M, Kiecker J, Hansen A. “Measuring the utility of patient-reported outcome measures to assess the functional impact of phantom limb pain”, OT Summit of Scholars, June 23-25, 2021.
16. Rich T, Phelan H, Matsumoto M, Gravely A, Hansen A, Goldish G, Voss G, Fairhurst S, Egginton J, Looft J, Olney C. “Engaging Veteran stakeholders in early-stage research: The key to developing

- novel self-management approaches”, VA Research Week, June 9-10, 2021.
17. Bornstein AS, Vos Draper T, Fairhurst S, Kemmer S, Eddy B, Goldish G, Gravely A, Hansen AH, Barrett B, Morrow M, Olney CM. (2021). User Experience Design of Personal Use Pressure Monitoring System for Veteran Wheelchair Users. National Pressure Injury Advisory Panel NPIAP 2021 Virtual Annual Conference.
 18. Halsne, E. G., Curran, C. S., Caputo, J. M., Hansen, A. H., Hafner, B. J., Morgenroth, D. C. Programming a robotic prosthetic foot emulator to mimic commercial prosthetic forefoot stiffness properties to optimize prosthetic foot prescription: methods and validation. poster at Military Health System Research Symposium, Kissimmee, FL, August 2021.
 19. Liberatore, AG, Nickel, EA, Lloyd, A, Voss, G, Hansen, AH, Koehler-McNicholas, SR (2020) An Adjustable Range-of-Motion Prosthetic Ankle-Foot System (Poster Presentation and Podium Presentation), 46th Annual Meeting and Scientific Symposium of the American Academy of Orthotists & Prosthetists, March 4-7, Chicago, IL, USA
 20. Halsne, E. G., Turner, A. T., Curran, C. S., Hansen, A. H., Hafner, B. J., Caputo, J. M., Morgenroth, D. C. (2021) Comparison between a robotic prosthetic foot emulator and corresponding commercial prosthetic forefoot angular stiffness. International Society for Prosthetics and Orthotics 18th World Congress; accepted for poster presentation at virtual conference, November.
 21. Brousseau L, Childers WL, Hansen AH, Walker NR, Behrens KM, Caputo JM, Curran CS, Hafner BJ, Turner AT, Halsne EG, Morgenroth DC. (2020) Predicting prosthetic foot preference among Service Members and Veterans with unilateral transtibial amputations. 2020 Military Health System Research Symposium. Kissimmee, FL. August 24-27.
 22. Cooper KJ, Childers WL, Behrens K, Brousseau L, Caputo J, Curran C, Hafner B, Halsne E, Hansen A, Turner A, Walker N, Morgenroth D. “The effect of different prosthetic feet on performance-based balance outcome measures in Service Members and Veterans with unilateral transtibial amputations.” 2020 Military Health System Research Symposium. Kissimmee, FL. August 24-27.
 23. Nickel, E, Morin, S, Koehler-McNicholas, S, Hendershot, B, Schnall, B, Hansen, A (2019) Impact Testing Prosthetic Feet (Poster Presentation), Research Day, Minneapolis VA Health Care System, May 1, Minneapolis, MN, USA.
 24. McCracken, P, Santa Ana, C, Danzl, L, Olney, C, Oddsson, L, Koehler-McNicholas, S (2019) walk2Wellness Clinical Trial (Poster Presentation), Research Day, Minneapolis VA Health Care System, May 1, Minneapolis, MN, USA.
 25. Rich TL, Voss GO, Fairhurst SR, Koester KA, Hansen AH, Ferguson JE (2019) Initial Testing of a New Socket-Fit Sensor System. American Orthotic and Prosthetic Association National Assembly, San Diego, California, September 25-28.
 26. Koehler-McNicholas SR, Nickel EA, Voss GO, Hansen AH (2019) Biomechanical Evaluation of an Ankle-Foot Prosthesis for Physical Therapy. American Orthotic and Prosthetic Association National Assembly, San Diego, California, September 25-28.
 27. Slater BS, Porter SB, DeVries AS, Johnson JR, Clabots CR, Hansen AH, Goldish GD. (2019) Reduced bacterial hand contamination with an ergonomic wheelchair. Paralyzed Veterans of America Summit and Expo, Orlando, Florida, August 16.
 28. Morrow M, Olney CM, Egginton J, Ferguson J, Goldish G, Eddy B, Hansen AH, Carroll K, Vos-Draper T (2019) Utilizing a Mixed Methods Approach in the Development and Assessment of Mobile Technology for Seated Pressure Injury Prevention. American Spinal Injury Association Annual Scientific Meeting, Waikiki, Hawaii, April 2-5. This poster won First Place in the Poster Presentation Competition.
 29. Vos-Draper T, Olney CM, Egginton J, Ferguson J, Goldish G, Eddy B, Hansen AH, Carroll K, Morrow M (2019) Usability of a Mobile Pressure Mapping System in Daily Life to Increase Prevention Behaviors. National Pressure Ulcer Advisory Panel Annual Conference. St. Louis, Missouri, March 1-2.
 30. Koch, E, Brenteson, C, Cataldo, A, Gude, L, Rud, B, Johnson, D, Hauck, J, Wigness, B, Oddsson, L, Hansen, A, Koehler-McNicholas, S (2018) Evaluation of a Novel Gait Training System to Support Body Weight During Physical Therapy, Annual Conference of the American Congress of Rehabilitation Medicine, September 30-October 3, Dallas, Texas.

31. Hein, E, Nickel, E, Hansen, A, Koehler-McNicholas, S (2018) Testing of Rubber Bumpers for Improvement of the Single Axis Foot, Annual Meeting of the American Society of Biomechanics, August 8-11, Rochester, Minnesota.
32. Dellamano, CA, Ray, S, Schnall, BL, Hendershot, BD, Koehler-McNicholas, SR, Hansen, AH (2018) Energy Return in Prosthetic Feet for High Activity Users During Weighted and Unweighted Walking, Annual Meeting of the American Society of Biomechanics, August 8-11, Rochester, Minnesota.
33. Fairhurst S, McCool L, Scheel K, Stien C, Brenteson C, Hansen A, Goldish G, Ferguson J (2018) Development of a Rehabilitation Game for Individuals with Spinal Cord Injury using a User-centered Design Process. ASME Design of Medical Devices Conference, Minneapolis, Minnesota, April 11.
34. Koehler-McNicholas S, Cataldo A, Koch E, Rud B, Gude L, Brenteson C, Johnson D, Wigness B, Hauck J, Oddsson L, Hansen A (2018) Evaluation of a Novel Gait Training Device using a Pressure Suit to Support Body Weight. ASME Design of Medical Devices Conference, Minneapolis, Minnesota, April 11.
35. Hansen AH, Koehler-McNicholas S, Barrons K, Nickel E, Starker F, Mion S, Ferguson J, Savvas Slater B, Voss G, Ramasamy E, Koester K, Dearth CD, Hendershot BD, Pruziner A, Anderson P, Hassinger L, Schneider U. (2017) Development of a Passive Breathable Lower-Limb Prosthetic Socket System. Presented at the Federal Advanced Amputation Skills Training (FAAST), Bethesda, MD, USA and the Military Health System Research Symposium (MHSRS), August 28, Kissimmee, FL, USA.
36. Nickel E, Morin S, Koehler-McNicholas S, Hendershot B, Schnall B, Hansen A (2017) Impact Testing of High-Activity Prosthetic Feet. Military Health System Research Symposium (MHSRS), August 28, Kissimmee, FL, USA.
37. Olney C, Leestma J, Hansen A, Ferguson J, Murphy Kruse M, & Goldish G (2017) Pressure Injury Prevention: Self-Screening Camera Design and Development. Academy of Spinal Cord Injury Professionals Educational Conference & Expo, September 3-6, Denver, Colorado.
38. Fairhurst S, Nickel E, Morin S, Goldish G, Hansen A (2016) Design of an Ergonomic Wheelchair Drive System for Improved Shoulder Biomechanics. ASME Design of Medical Devices Conference, April 13, Minneapolis, Minnesota.
39. Koehler-McNicholas SR, Nickel, E, Schultz CJ, Hansen AH (2016) Rocker Shoes for Natural Immobilization of the Ankle during Single-Limb Support. ASME Design of Medical Devices Conference, April 13, Minneapolis, Minnesota.
40. Nickel EA, Hansen AH, Pearlman JP, Goldish GD (2015) A Drive System to add Standing Mobility to a Manual Standing Wheelchair. Rehabilitation Engineering and Assistive Technology Society of North America Annual Conference, June 10-14, Denver, Colorado.
41. Fairhurst S, Lin X, Nickel E, Hansen AH, Ferguson JE (2015) Sensor Based Control of a Bimodal Ankle-Foot Prosthesis with a Smartphone Interface. ASME Design of Medical Devices Conference, April 15, Minneapolis, Minnesota.
42. Fairhurst SR, Simone AB, Ferguson JE, Hansen AH (2015) Portable Wireless Visuotemporal Cue Device for Gait Therapy. ASME Design of Medical Devices Conference, April 15, Minneapolis, Minnesota.
43. Lutfy PM, Hansen AH, Nickel EA, Ferguson JE, Goldish GD (2014) Pilot Testing of a Supine Arm Cycle Ergometer in Persons with Spinal Cord Injuries. Annual Assembly of the American Academy of Physical Medicine and Rehabilitation, November 13-16, San Diego, California.
44. Lindenberg D, Hansen A, Nickel E, Goldish G (2014) Development and pilot testing of a manual wheelchair with independent positioning of the pushrims and drive wheels. Rehabilitation Engineering and Assistive Technology Society of North America (RESNA), June 11-15, Indianapolis, Indiana.
45. Nickel E, Hansen A, Goldish G, Fairhurst S, Morin S (2013) Upper Limb Cycle Ergometer for Supine Exercise. ASME Design of Medical Devices Conference, April 10, Minneapolis, Minnesota.
46. Fatone S, Wood S, Komolafe O, Caldwell R, Chen W, Sun C, Hansen A (2013) Characterization of Mechanical and Electrical Vacuum Pumps for Use in Vacuum-Assisted Suspension. 14th World

- Congress of the International Society of Prosthetics and Orthotics, February 4-7, Hyderabad, India.
47. Nickel EA, Hansen AH, Gard SA (2011) Prosthetic Ankle-Foot System that Adapts to Sloped Surfaces. ASME Design of Medical Devices Conference, April 12-14, Minneapolis, Minnesota.
 48. Olney, CM, Powell-Cope, G, Wilson, A, Maeve, MK Merriweather, B, Olney, R (2011). Repositioning Veterans with Spinal Cord Injury: What do Nurses Believe about the Standard of Care? Poster presentation at the Southern Nursing Research Society, Annual Conference, February 16-19, Jacksonville, FL.
 49. Olney, CM, Powell-Cope, G, Wilson, A, Maeve, MK Merriweather, B, Olney, R (2011). Repositioning Veterans with Spinal Cord Injury: What do Nurses Believe about the Standard of Care? Poster presentation at the National Pressure Ulcer Advisory Panel Conference, February 25-26, Las Vegas, NV.
 50. Hansen AH, Wang CC (2010) Effects of rocker shoe radii on ankle kinematics and ankle-foot roll-over shapes. 13th World Congress of the International Society for Prosthetics and Orthotics, May 10-15, Leipzig, Germany.
 51. Hansen AH, Wang CC (2010) Effective rocker shapes created by able-bodied ankle-foot systems for fore-aft swaying and walking: Implications for improved ankle-foot prostheses. 13th World Congress of the International Society for Prosthetics and Orthotics, May 10-15, Leipzig, Germany.

PROFESSIONAL SERVICE

1. Olney, CM. Member, Minneapolis VA Research R & D Committee, 2021-present.
2. Nickel EA, Hansen AH. American Orthotics and Prosthetics Association Socket Guidance Workgroup. Member, 2021 – present.
3. Slater, BCS ORD COVID19 Expanded Access Program, National Coordinator Group Member, 2020
4. Walker, NR. American Academy of Orthotists and Prosthetists Diversity and Inclusion Advisory Panel. Member, 2021 – Present.
5. Olney, CM. Mentor, Office of Academic Affiliation, VA Quality Scholars Program. Joined June 2021
6. Olney, CM. Committee Member, Minneapolis VA Research Strategic Planning Committee, Minneapolis VA, Minneapolis, MN 2021
7. Olney CM. Committee Chair Veterans Affairs Research Career Development Award Program, August 2021
8. Olney, CM Chair, Minneapolis VA Spinal Cord Injury Research Committee, 2020.
9. Nickel EA. International Organization for Standardization (ISO) Technical Committee 168 – Prosthetics and Orthotics (Workgroup 3 – Testing). Member of US delegation, 2019 – present.
10. Nickel EA. Milwaukee School of Engineering Biomedical Engineering Program Industry Advisory Committee. Member, 2011 – present.
11. Olney, CM. Advisor, Minneapolis VA Nursing Evidence Based Practice and Research Council. Joined May 2016.
12. Hansen AH. Session Organizer, Design of Medical Devices Conference, University of Minnesota. 2011 – present.
13. Hansen AH. Rehabilitation Track Co-Chair, Design of Medical Devices Conference, University of Minnesota, 2010 – present.
14. Hansen AH. National Professional Standards Board for Research Biomedical Engineers, Appointed by the Department of Veterans Affairs Under Secretary for Health, 2017 – 2020.
15. Hansen AH. National Institutes of Health, Musculoskeletal Rehabilitation Sciences Study Section Member, 2016 – 2020.
16. Hansen AH. Research Committee Chairperson, Orthotics & Prosthetics Education and Research Foundation, 2013 – 2016.
17. Hansen AH, Ferguson J, and Looft JM. Investigator Board Members, Minnesota Veterans Medical Research and Education Foundation & Center for Veterans Research and Education, 2013 – present.
18. Olney, CM. Faculty for the SCI-PUMT National VHA Training Conference. Minneapolis, MN, May 4 & 5, 2011.

In addition to these professional service activities, numerous MADE investigators and personnel assist with grant reviews for several federal agencies and with article reviews for a wide variety of topics.