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Orthotic, Prosthetic & Pedorthic Clinical Services
Rehabilitation and Prosthetic Service (10P4R)
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Education

- 2012 **University of South Florida**; Morsani College of Medicine. Tampa, FL
Doctor of Philosophy (Ph.D.) in Medical Sciences, Clinical and Translational Research Concentration.
University of South Florida, College of Medicine. Major Professors: Eric S. Bennett PhD (Chair), Bruce G. Lindsey PhD (Co-chair), Rajiv V. Dubey PhD, Gail A. Latlief DO, William S. Quillen PT PhD, Shirley Groer, PhD. Dissertation: Comparative Outcomes Assessment of the C-Leg and X2 Knee Prostheses. A Pilot Study.
- 2009 **University of South Florida**; College of Medicine. Tampa, FL.
Master of Science in Medical Science (M.S.M.S.) concentration in Clinical and Translational Research. NIH K30 sponsored program. Major Professors: Ken Zuckerman MD (COM), Phillip Marty PhD (COPH). Thesis Mentor: Rajiv V. Dubey, PhD. Thesis: Biomechanics of Sitting and Standing in Transfemoral Amputees using different Knee Prostheses.
- 2005 **National Commission on Orthotic & Prosthetic Education (NCOPE)** accredited 1 year residency in Prosthetics at Westcoast Brace & Limb of Tampa, FL.
Resident Research Project Title: Effects and outcomes of gait training using a “hands-free” harness and cable fall-protection system with knee disarticulation and transfemoral amputee subjects. *A pilot study.*
Residency Director: Jason T. Kahle, C.P.O.
- 2004 **Northwestern University**; Feinberg School of Medicine. Chicago, IL.
Board Certification in Prosthetics (C.P.) Licensed Prosthetist, FL License #PRO107.
- 2003 **University of St. Augustine**; Institute of Physical Therapy. St. Augustine, FL.
Doctor of Physical Therapy (D.P.T.) Manual Therapy Track.
Capstone Project Title: Evidence Based Physical Therapy Interventions for the Lower Extremity Amputee: A Literature Review. Capstone Reviewer: Jane Day P.T., Ph.D. University of Florida. Gainesville, FL.
- 2003 **University of South Florida**; College of Medicine. Tampa, FL.
Master of Science in Physical Therapy (M.S.P.T.) Licensed Physical Therapist, FL License #PT21122.
- 2000 **Ironworkers Local Union #397**. Tampa, FL.
Ironworkers Apprenticeship Training Program
Graduated ‘outstanding apprentice’ c/o 2000 to attain Journeyman Ironworker status.
Certifications: 1.) 5G structural steel welding. 2.) MIG Welding. 3.) Oxyacetylene cutting/welding. 4.) Ropes Rappelling. 5.) OSHA Subpart R. 6.) Scaffold Erecting.
- 1997 **University of South Florida**; College of Education. Tampa, FL.
Bachelor of Science in Education (B.S.)
- 1994 **University of South Florida**. Tampa, FL.
Associate in Arts (Pre-Physical Therapy Major) (A.A.)

Professional Experience

- 2019- **Professor.** University of South Florida, Morsani College of Medicine, School of Physical Therapy & Rehabilitation Sciences, Tampa, FL.
- 2019- **Professor.** Joint appointed as Professor with the University of South Florida, Morsani College of Medicine, Department of Neurology, Tampa, FL.
- 2018-Present **National Program Director of Orthotic, Prosthetics & Pedorthic Services.** U.S. Department of Veterans Affairs (Central Office) Washington, D.C.
- 2017-2018 **National Program Director of Prosthetics and Orthotics Services (Interim).** U.S. Department of Veterans Affairs (Central Office) Washington, D.C.
- 2015-2018 **Deputy Chief.** Research & Surveillance Division. VA/DOD Extremity Trauma & Amputation Center of Excellence (EACE). U.S. Department of Veterans Affairs. Washington, D.C.
- 2014-2018 **Associate Professor with Tenure** (determined June 2014; effective Aug 2014). University of South Florida, Morsani College of Medicine, School of Physical Therapy & Rehabilitation Sciences, Tampa, FL. Joint appointment (0.2 FTE) with VA effective Feb 2015.
- 2012-2015 **Co-Director.** Center for Neuromusculoskeletal Research. Human Functional Performance Laboratory. University of South Florida, Morsani College of Medicine, School of Physical Therapy & Rehabilitation Sciences, Tampa, FL.
- 2008-2014 **Assistant Professor.** University of South Florida, Morsani College of Medicine, School of Physical Therapy & Rehabilitation Sciences, Tampa, FL.
- 2008-2012 **Research Scientist/ Physical Therapist** James A. Haley Veterans' Hospital VISN8 Patient Safety Research Center of Inquiry, Tampa, FL.
- 2005-2008 **Visiting Assistant Professor** and **Project Manager** for "Demonstration Project on Prosthetics and Orthotics". University of South Florida, College of Medicine, School of Physical Therapy & Rehabilitation Sciences, Tampa, FL.
- 2004-2005 **Resident Prosthetist,** Westcoast Brace & Limb, Tampa, FL.
- 2004-2005 **Physical Therapist,** Loyd Healthcare Staffing, Tampa, FL.
- 2004-Present **Distance Instructor for Prosthetics,** University of St. Augustine, Institute of Physical Therapy, St. Augustine, FL.
- 2003-2004 **Physical Therapist,** Kessler Rehabilitation, Brandon, FL.
- 1997- 2001 **Journeyman Ironworker,** Ironworkers Local Union #397, Tampa, FL.

Military

- 2025 Supervisor Development Course (1-250-C53 (DL)). Army Training Information System. Virtual/Online. 40hr course.
- 2024 Company Command and First Sergeant Course (CCFSC). Fort Knox, KY. DEC2024.

- 2024 Command and General Staff College (CGSC. Intermediate Level Education-ILE) Completed phase III (of III phases) NOV2024. Ft Dix, NJ.
- 2024 Command and General Staff College (CGSC. Intermediate Level Education-ILE) Completed phase II (of III phases) Sep2024. Virtual/Hybrid. Enrolled in phase III Nov2024.
- 2024 Additional Skill Identifier (ASI). O8H- Clinical Investigation and Research Regulatory Oversight. Issued 3JUL2024.
- 2024 Army Reserve Component Achievement Medal (ARCAM; 3rd award. Svc Yrs 7-9). U.S. Department of the Army.
- 2024 Commanding Officer (CO). 319th Minimal Care Detachment. Pinellas Park, FL. 1LT Deanne Woodard (XO), SSG Jason Castle DET SGT, SSG Jacqueline Godwin Training NCO.
- 2024 ARMEDCOM Physical Security Training Course. Apr 2024.
- 2023 Army Achievement Medal (AAM). US Department of the Army.
- 2023 Command and General Staff College (CGSC. Intermediate Level Education-ILE) Completed phase I (of III phases) Aug2023. Fort Dix, NJ. Enrolled in phase II Feb2024.
- 2022 **Major** (O4) U.S. Army Reserves. Promoted 4DEC2022.
- 2022 Army Achievement Medal (AAM). US Department of the Army.
- 2021 Junior Officer Leader (JLC). US Army Medical Command. May 2022. Fort Belvoir, VA.
- 2021 Acting Commanding Officer (CO). 319th Minimal Care Detachment. Field Training Exercise. 21-24 Apr 2022. Camp Blanding, FL.
- 2021 Executive Officer (XO). 319th Minimal Care Detachment. Pinellas Park, FL. 1LT Knakita Cruz (CO), SSG Natasha Gedeon DET SGT, SGT Brandy Harrelson Training NCO.
- 2021 Army Reserve Component Achievement Medal (ARCAM; 2nd award. Svc Yrs 4-6). U.S. Department of the Army.
- 2020 Army Combat Fitness Test (ACFT) 2day Training Course for OIC, Rater, Train the Trainer.
- 2020 AMEDD Providers Profiling Course (Virtual). Aug 2020. U.S. Department of the Army.
- 2020 Army Reserve Component Achievement Medal (ARCAM; 1st award. Svc Yrs 1-3). U.S. Department of the Army.
- 2019 AMEDD Captains Career Course (CCC). Graduated Jun 2019. AMEDD Center & School. Fort Sam Houston, TX.
- 2019 Nominated for Army Medical Specialists Corps' "New Horizon Award" for Research and Academic Contributions to the Rehabilitation Profession by LTC Owen T. Hill, PhD, PA-C

- 2018 Officer in Charge(OIC), Army Physical Fitness Test(APFT). 319th Minimal Care Detachment (Pinellas Park, FL).
- 2018 Officer in Charge(OIC), Physical Therapy Section. 319th Minimal Care Detachment (Pinellas Park, FL).
- 2018 Credentialed and Privileged (March). Blanchfield Army Community Hospital (Kentucky).
- 2018 Credentialing Officer in Charge(OIC). 319th Minimal Care Detachment (Pinellas Park, FL).
- 2017 Army Service Ribbon. U.S. Department of the Army.
- 2017 National Defense Service Medal. U.S. Department of the Army.
- 2017 Basic Officer Leadership Course(BOLC). Graduated Oct 2017. Fort Sam Houston, TX.
- 2016 Army Commendation Medal (ARCOM). U.S. Department of the Army.
- 2015 **Captain** (O3) U.S. Army Reserves. **Physical Therapist** (AOC/MOS: 65B). 319th Minimal Care Detachment (Pinellas Park, FL). Commissioned 4Jun2015.

License and Certification

Physical Therapist. FL License # PT21122

Prosthetist. FL License # PRO107. ABC # CP003467 (Board Certification)

Professional and Committee Memberships and Service

- 2019 Accredited Clinical Mentor (ACM). National Commission for Orthotic & Prosthetic Education (NCOPE).
- 2017 Chair & Panelist. State of the Science Conference (#13): “Health Economics of Lower Extremity Prosthetics”. 2-Day Conference hosted by the American Academy of Orthotists & Prosthetists(AAOP). Oct 2017. Austin, TX.
- 2017 Military Health System Research Symposium Session Moderator and Chair: “Prosthetics and Orthotics.” Abstract Peer-Reviewer. Aug 2017. Kissimmee, FL.
- 2017 Poster Session Judge and Moderator. Federal Advanced Amputation Skills Training Conference(FAAST). Uniformed Services University of the Health Sciences. July 2017. Bethesda, MD.
- 2016-2017 Orthotic and Prosthetic Education and Research Foundation(OPERF). Vice-Chair.
- 2016 Chair & Panelist. State of the Science Conference (#12): “Differences in Upper Extremity Prostheses; Myoelectric and Body Powered Systems”. 2-Day Conference hosted by the American Academy of Orthotists & Prosthetists(AAOP). Sept 2016. Orlando, FL.
- 2016 Military Health System Research Symposium Session Moderator: “Mitigating Challenges Posed by War Related Extremity Trauma and Limb Loss.” Aug 2016. Kissimmee, FL.

- 2016 VA/DOD Federal Advanced Amputation Skills Training Conference (FAAST) Session Moderator: “Prosthetic Components” Breakout Session 3. July 2016. Fort MacArthur/L.A. Airforce Base. San Pedro, CA.
- 2016-2017 U.S. Department of Veterans Affairs. DOD/VA Lower Extremity Amputee Clinical Practice Guideline Panelist/Author/Subject Matter Expert.
- 2016 U.S. Department of Veterans Affairs. Rehabilitation Research & Development Service, Rehabilitation Engineering and Prosthetics/Orthotics Subcommittee (RR&D5) ad-hoc Center of Excellence Site Visitor for Limb Loss & Prosthetic Engineering COE.
- 2015- U.S. Department of Veterans Affairs. Advanced Orthotic Clinic Subject Matter Expert Committee. Co-Chair.
- 2015- U.S. Department of Veterans Affairs. Performance Metrics Committee Member.
- 2015- Federal Advanced Amputation Skills Training (FAAST) Conference Planning Committee Member.
- 2015- U.S. Department of Veterans Affairs. Rehabilitation Research & Development Service, Rehabilitation Engineering and Prosthetics/Orthotics Subcommittee (RR&D5) ad-hoc Board Member appointment (2y term).
- 2015- Member. Scientific & Medical Advisory Committee (SciMac). Amputee Coalition. 2y term.
- 2015 Member. Limb Loss Task Force. To plan national amputee registry and model system of care. Amputee Coalition. Boston, MA. Mar 2015.
- 2014- Member. FPTA Research Committee. Chair: Larry J. Mengelkoch, PT, PhD. 2y term.
- 2013-2014 Member. Special Operations Medical Association (SOMA). www.specialoperationsmedicine.org
- 2012 Panelist: State of the Science Conference #11: Microprocessor Prosthetic Knees. American Academy of Orthotists and Prosthetists. Rosemont, IL. Nov 2,3 2012.
- 2012- 2014 Member (2yr appt.) U.S. Army Medical Research and Material Command (USAMRMC), Clinical and Rehabilitative Medicine Research Program (CRM RP), Rehabilitation of Neuromusculoskeletal Injury, Scientific Steering Committee. Command: LTC David Wright. Portfolio Mgr: Brian Baum, PhD
- 2012- Present Member- Florida Chapter of the American Academy of Orthotists and Prosthetists (FCAAOP).
- 2010- 2017 Member- Board of Directors (since July 2010) American Academy of Orthotists and Prosthetists (AAOP). Member Executive Committee (Treasurer 07/2012-13; Vice President 07/2013-14; President-Elect 07/2014-15; President 07/2015-07/2016); Immediate Past-President 07/2016-07/2017).
- 2009- Veterans’ Affairs and Department of Defense Prosthetics and Orthotics State of the Art (SOTA) Conference Planning Committee Member. U.S. Department of Veterans’ Affairs and U.S. Department of Defense. Washington, DC.
- 2007- 2009 Amputee Toolkit Committee Member. James A. Haley Veteran’s Hospital VISN8 Patient Safety Research Center. Committee Chair: Audrey Nelson, RN, PhD, FAAN
- 2005- 2008 Dissertation Committee for Stephanie Carey. University of South Florida. College of Engineering, Mechanical Engineering Department. Dissertation title: “Compensatory Body Motions Influenced

by Transradial Prosthetic Design”. Other committee members: R. Dubey, C. Lusk, M. Maitland. Fall 2005-2008.

2004- Present Fellow Member (since Apr 2007) American Academy of Orthotists and Prosthetists (AAOP).

2006- Present AAOP Committee/Council Positions: Standards & Protocols Committee (Chair 2008-’09). Research Council (Vice-Chair 2012-’13, Chair 2013-14). Secondary Knowledge Committee Chair (2012-’13)

2008-10 University of South Florida. College of Medicine. Committee on Pharmacy, Device & Industry Support Policy.

University of South Florida. School of Physical Therapy & Rehabilitation Sciences (SPTRS).

1. 2014 Faculty Annual Performance Review Committee
2. 2011-’14 Faculty Council Representative (Academic) for SPTRS
3. 2010 Task Force to Improve Faculty-Student Interactions (Chair)
4. 2007, 2013- Annual Promotion & Tenure Document Review Committee
5. 2006-’08, 2012-’14 Student Admissions/Selection Committee.
6. 2006-’10, 2013-’14 Academic Faculty Search Committee. Chair (’08-’10).
7. 2006-’08 College of Medicine Academic Performance Review Sub-Committee

2000- Present American Physical Therapy Association (APTA)

2000- Present Florida Physical Therapy Association (FPTA)

1997- 2005 International Association of Bridge, Structural, Ornamental and Reinforcing Ironworkers

1997- Present University of South Florida Alumni Association

Honors and Awards

2024 Force for Good Award. University of St. Augustine for Health Sciences. Commencement Ceremony. Aug 2024. Jacksonville, FL.

2018 University of South Florida. Morsani College of Medicine. School of Physical Therapy & Rehabilitation Sciences. SPTR&S Alumni Weekend and 20th Anniversary Celebration. Outstanding Alumni Researcher. Oct 2018. Busch Gardens. Tampa, FL.

2016 Edwin and Kathryn Arbogast Poster Presentation Award for: Klenow TD, Kahle JT and **Highsmith MJ**. A Metric to Quantify the “Dead Spot” Phenomenon in Prosthetic Gait. Poster Presentation (C23D). Sept 2016. American Orthotic and Prosthetic Association (AOPA) National Assembly. Boston, MA.

2016 Research Award. American Academy of Orthotists & Prosthetists.

2014 Research Award (nominee). American Academy of Orthotists & Prosthetists.

2013 Research Award (nominee). American Academy of Orthotists & Prosthetists.

2012 Thranhardt Lecture Award. American Orthotic & Prosthetic Association. Boston, MA.

- 2012 Margaret L. Moore Award for Outstanding New Academic Faculty. American Physical Therapy Association.
- 2012 Student Choice Award. From the School of Physical Therapy & Rehabilitation Sciences' Graduating Class of 2012. University of South Florida. Morsani College of Medicine.
- 2012 Famous Alumni Award. University of St. Augustine for Health Sciences. Institute of Physical Therapy. Distance Education and Training Council (DETC).
- 2011 Blatchford Lecturer at the 2011 Annual Scientific Meeting of the International Society of Prosthetists & Orthotists (ISPO). Hammersmith, London.
- 2011 Nominee- USF Office in Research & Innovation, Excellence in Innovation Award.
- 2011 Nominee- Margaret L. Moore Award for Outstanding New Academic Faculty. American Physical Therapy Association.
- 2010 Member- *Academy of Inventors*. University of South Florida, Office of Research and Innovation. For Patent: Maitland ME, **Highsmith MJ**, Lusk CP. Conforming Artificial Finger Mechanism. U.S. Patent # 7,614,673 B2. Issued: 10 Nov 2009.
- 2009 Dean's Academic Performance Award 2008/2009. University of South Florida. College of Medicine.
- 2009 Invited attendee to 7th Annual "Enhancing Rehabilitation Research in the South" (ERRIS) Intensive NIH Grant Preparation Workshop. Sponsored by Grant# 1T15HD050255-03A1 from NIH-NICHD-NCMRR. Charlottesville, VA.
- 2008 Outstanding Interdisciplinary Poster Award: "Comparison of C-Leg microprocessor knee with non-microprocessor knees on walking tests, stair descent, questionnaire, preference, stumbles and falls". Research Day (Feb) 2008. University of South Florida. College of Medicine.
- 2008 Burroughs Wellcome Fund Travel Awardee. \$500 Travel Award to attend: Clinical Translational Science Awards (CTSA) KL2, K12 and K30 Clinical Research Scholars and Association for Clinical Research Training (ACRT). Washington, D.C. 2008 National Annual Meeting.
- 2007 Silver Performance Award for Outstanding Contributions 2006/2007. University of South Florida. College of Medicine.

Research Support

* Graduate student supervised by MJ Highsmith

† Invented or Co-Invented Product or Procedure

‡ Patented or Patent Pending

Funded:

Maitland ME (PI), Carey SL (Co-I), Wernke M (Co-I), **Highsmith MJ (Co-I)**. *The Effectiveness of Frontal Plane Adaptability in a Novel Foot Prosthesis for People with Above-Knee Amputations, Bilateral Amputations, or Limited Mobility*. Congressionally Directed Medical Research Programs (CDMRP) Orthotics and Prosthetics Outcomes Research Program (OPORP), \$2,361,040, 03/15/2023-03/14/2027.

Carey SL (PI), **Highsmith MJ (Co-I)**. *Monitoring Prosthetic and Orthotic Function in the Community*. US Army Medical Research and Materiel Command, Orthotics and Prosthetics Outcomes Research Program (OPORP). Award # W81XWH2120062. Project Period: 09/30/2021-09/30/2023. Total Costs: \$344,538.

Heckman J(PI), **Highsmith MJ(USF PI)**, Highsmith JT(CO-I), Waibel J(CO-I). The LASER Pilot Project: Laser Therapy in Amputee Skin Care to Enhance Rehabilitation. A Preliminary Investigation. US Department of Veterans Affairs. RRD2 Musculoskeletal Health & Function. RFA# RX-22-03. Award # 1I21RX007110-01A1. Small Projects in Rehabilitation Research (SPIRE I21) Proposal. Project Period: 11/15/2023-11/14/2025. Total Costs: \$229,962.

Highsmith MJ (PI), Miro RM (Co-I). *Enhanced Auto-Diagnostic Adaptive Precision Trainer for Myoelectric Prosthetic Users (eADAPT-MP). Design Interactive*. USF Project #: 6140103900. Project Period: 01/28/2019-06/30/2020. Total Project Costs (incl F&A): \$184,172.

Highsmith MJ (PI), Miro RM (Co-I). *Enhanced Auto-Diagnostic Adaptive Precision Trainer for Myoelectric Prosthetic Users (eADAPT-MP). Florida High Tech Corridor matching funds*. Project Period: 01/28/2019-06/30/2020. Total Project Costs: \$81,183.

Miro RM (PI), **Highsmith MJ (Co-PI)**. *Prosthetic, functional, and clinical outcomes among female amputees: A scoping project to include a systematic review and 10-year retrospective record review of female Veterans with limb loss*. Center for Orthotic & Prosthetic Learning. USF Project # TBD. Project Period: 08/01/2020 – 07/31/2021. Total Project Costs: \$14,117.

Highsmith MJ (PI), Miro RM (Co-I). *Appraisal of Spinal Pain and Disability in Veterans with Lower Extremity Amputation or Limb Trauma*. USF Center for Neuromusculoskeletal Rehabilitation. Project Period: 03/01/2019 – 09/30/2020. Total Project Costs: \$75,259.

Farrokhi S (PI). Site PI's: Dearth C., Russell-Esposito E., **Highsmith MJ** and Mayer JM. *Resolving the Burden of Low Back Pain in Military Service. Members and Veterans: A Multi-site Pragmatic Clinical Trial*. NIH-DoD-VA Pain Management Collaboratory - Pragmatic Clinical Trials Demonstration Projects (UG3/UH3). Performance Period: 01/2018-12/2024. \$6M. Application in review. Submitted Spring 2017.

Highsmith MJ (PI), Kahle JT (Co-PI). *Prosthetic Smart Socket Technology to Improve Patient Interaction, Usability, Comfort, Fit and Function*. Department of Defense. Solicitation number: W81XWH-15-JPC-8-CRMRP-NMSIRA. Proposal number: MR150086. USF Project #: 614010 _____. Project period: 08/01/2016-07/31/2019. Total project costs (incl F&A): \$1,465,001.

Highsmith MJ (PI), Hill O (Co-PI), Phillips S (Co-PI), Maikos J (Co-PI), Stevens P (Co-PI), Campbell J (Co-PI). *The IM ABLE Study: A Cross-Sector, Multi-Site Initiative to Advance care for Warriors and Veterans following Neuromusculoskeletal Injury of the Lower Limb*. Department of Defense. Solicitation number: W81XWH-15-OPORP-OORA. Proposal number: OP150089. USF Project #: 614010 _____. Project Period: 10/1/2016-9/30/2019. Total Project Costs (incl F&A): \$1,305,163.

Highsmith MJ (site-PI and lead data collector). *Needs, Preferences and Functional Abilities of Veterans and Service Members with Upper Limb Amputation*. VA Providence Medical Center (prime: Department of Defense). Solicitation number: W81XWH-15-OPORP-OORA. Proposal number: OP150014. USF Project #: 614010 _____. Project period: 10/1/2016-9/30/2019. Total project costs (incl F&A): \$32,666.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *The Effect of Prosthetic Socket Interface Design on Perspiration and Residual Limb Skin Condition for the Transfemoral Amputee*. Department of Defense. Solicitation number: W81XWH-14-DMRDP-CRMRP-NMSIRA. Proposal number: MR140125. USF Project #: 6140103200. Project period: 10/01/2014-09/30/2018. Total project costs (incl F&A): \$940,714.

Highsmith MJ (PI), Miro RM (Co-PI), Kahle JT (Consult), Cress ME (Consult), Mengelkoch LJ (Consult). *Concurrent Validation of the Continuous Scale Physical Functional Performance Test (CS PFP-10) in*

Transfemoral Amputees. Center for Orthotic and Prosthetic Learning. RFP#: 043015. USF Project# 6140103000. \$15,000. Project Period: 07/15/2015-04/01/2016.

Highsmith MJ (PI), Kahle JT (Co-PI), Orriola J (Co-I), Miro RM (Research Coordinator), Sutton B (Co-I), Orriola JJ (Co-I), Lewandowsky AL (Co-I). *Cost Efficacy of Transtibial Interventions*. Center for Orthotic and Prosthetic Learning. RFP#: 04012015. USF Project# 6140102900. \$29,930. Project Period: 07/15/2015-04/01/2016.

Highsmith MJ (PI), Lura DJ (Co-PI), Wernke M (Co-I), Carey SL (Co-I), Miro RM (Co-I), Kahle JT (Co-I). *Functional Comparison of Voluntary Opening versus Voluntary Closing Body-Powered Terminal Devices in Transradial Amputees*. TRS (Boulder, CO). \$24,999. 5% effort. USF Project #61401024. Project period: 06/01/2013-01/29/2015.

Highsmith MJ (PI), Lura DJ (Co-PI), Wernke M (Co-I), Carey SL (Co-I), Miro RM (Co-I), Kahle JT (Co-I). *Functional Comparison of Voluntary Opening versus Voluntary Closing Body-Powered Terminal Devices in Transradial Amputees*. USF Connect- Florida High-Tech Corridor. Industry Seed Grant. \$24,999. 2% effort. Award # FHT 14-03. Project period: 07/01/2013-06/30/2014.

Highsmith MJ (PI), Kahle JT (Co-PI), Orriola J (Co-I), Miro RM (Research Coordinator), Sutton B (Co-I), Groer S (Co-I), Lewandowsky AL (Co-I), Ertl JP (Co-I). *Prosthetic Management Following Amputation. A Systematic Review to Establish Assessment and Treatment Pathways*. American Orthotic and Prosthetic Association (AOPA). RFP#: 111012. USF Project# 6140102200. \$50,000. Project Period: 02/01/2013-04/01/2014.

Dubey RV (PI), Quillen WS (Co-PI), Alqusami R (Co-I), Carey SL (Co-I), Kim SH (Co-I), Reed KB (Co-I), **Highsmith MJ (Co-I)**. *MRI: Acquisition of a CAREN Virtual Reality System for Collaborative Research in Assistive and Rehabilitation Technologies*. National Science Foundation. Equipment Grant. \$450,000. July 2012.

Dubey RV (PI), Carey SL (Co-PI), **Highsmith MJ (Co-I)**. *Development of Simulation Tool for Upper Extremity Prostheses*. Department of Defense (DOD) U.S. Army Medical Research and Material Command. \$700,000. 10% effort. 9/16/10 - 09/15/12. USF Project #2105106300. Award #W81XWH-10-1-0601

Quillen WS (PI), Swisher LL (Co-PI), **Highsmith MJ (Co-I)**, Kim SH (Co-I), Chisolm TH (Co-I), Miro, RM (Coordinator). *Occurrence of Impairments in Balance, Gait, Vestibular & Hearing Functions*. Department of Defense (DOD). 5% effort. Award # W81XWH-11-1-0634. Award amount: \$264,600. Project period: 09/20/2011-09/19/2014.

Highsmith MJ (PI), Kahle JT* (Co-PI). *Biomechanical Superiority of Brimless Versus Ischial Ramus Containment (IRC) Sub-Atmospheric Transfemoral Interfaces*. Southern Bone & Joint Specialists. \$33,992. 3.4% effort. Award # 6140101600.

Highsmith MJ (PI), Kahle JT* (Co-PI). *Biomechanical Superiority of Brimless Versus Ischial Ramus Containment (IRC) Sub-Atmospheric Transfemoral Interfaces*. USF Connect- Florida High-Tech Corridor. Industry Seed Grant. \$33,992. 3.4% effort. Award # FHT 11-28.

Quillen WS (PI), **Highsmith MJ (Co-PI)**, Kim SK (Co-I), Mengelkoch LJ (Co-I). *Metabolic and Biomechanical Measures of Gait Efficiency of Three Multi-Axial, Vertical Shock and Energy Storing-Return Prosthetic Feet During Simple & Complex Mobility Activities*. Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP). \$714,744. 20% effort. Award # W81XWH-112-0170. Project period: 9/15/2011-9/14/2014.

Highsmith MJ (PI), Kahle, JT (Co-PI), Mengelkoch LJ (Co-I), Carey SL(Co-I), Fitzgerald SG(Co-I). *Comparative Outcomes Assessment of the C-Leg and X2 Knee Prosthesis: A Pilot Study*. USF Connect- Florida High-Tech Corridor. Industry Seed Grant. \$105,000. 10% effort. Award # FHT 10-26. Project Period: 1/8/2010-6/30/2014.

Highsmith MJ (PI), Kahle, JT (Co-PI), Mengelkoch LJ (Co-I), Carey SL(Co-I), Fitzgerald SG(Co-I). *Comparative Outcomes Assessment of the C-Leg and X2 Knee Prosthesis: A Pilot Study*. Otto Bock Healthcare. \$210,000. 30% effort. Award # 6140101200. Project Period: 1/8/2010-6/30/2014.

Mengelkoch LJ (PI), **Highsmith MJ (Co-PI)**, Kahle JT (Co-I), Nielsen DH (Consult). *Metabolic Analysis of Energy Storing Prosthetic Feet, During Walking and Running: A Comparison of Endurance Runners with Unilateral Transtibial Amputation, Transfemoral Amputation, and Matched Non-Amputees*. Signature Interdisciplinary Program in Cardiovascular Research- University of South Florida, Intramural Grant. 03/2009. Funded at \$10,000. 10% Effort. Award # 10009-614101.

Highsmith MJ (PI), Hart-Hughes S (Co-PI), Latlief GA (Co-I), Switzer JD (Co-I), Fitzgerald SP (Co-I). *Quantifying and Defining Conventional Physical Therapy Interventions for the Veteran with Amputation. A Retrospective Chart Review*. 2/2009-2/2010. Veterans' Healthcare Administration- James A. Haley VA. Patient Safety Center of Inquiry-REAP (Internal Funding). \$7,000. 20% effort.

Highsmith MJ (PI), Hart-Hughes S (Co-PI), Latlief GA, Switzer JD. *Fall Prevention Education Amputee Tool*. Veterans' Healthcare Administration QUERI. 10/2008-10/2009. In Progress Funding at \$15,000. 5% effort.

Schulz BW(PI), Hart-Hughes S, Latlief GA, **Highsmith MJ (Co-I)**. *Gait & balance deficits of polytrauma in transtibial & transfemoral amputees*. Veterans' Healthcare Administration QUERI. In Progress Funding at \$23,000. 02/2008-10/2009. 5% effort.

Highsmith MJ (PI), Lusk CP (Co-PI), Carey SL *(Co-I), Kahle JT (Co-I), Maitland ME (Co-I). *Kinetic and Kinematic comparison of power assisted versus stance control artificial knees during sit to stand and stand to sit transfers for above knee amputees*. Corporate Travel Grant from Ossur Prosthetics. 07/2006-07/2007. In Progress Funding at \$5,000. 100% effort.

Highsmith MJ (PI), Maitland ME (Co-PI), Carey SL* (Co-I). *Design, Fabrication and Evaluation of a Terminal Device for Kayaking*. Florida Physical Therapy Association (FPTA), Linda Crane Research Grant. 06/2006-06/2007. Funded at \$4,000[†]. 100% Effort.

Quillen WS (PI), Dubey RV (Co-PI), **Highsmith MJ (Project Mgr)**. *Demonstration Project in Prosthetics and Orthotics*. Project#6140100000, Award#H235J050020. United States Department of Education, Rehabilitation Services Administration (USDOE/RSA). 07/05-07/08. Funded at \$992,000. 100% Effort.

Pending

Haladay D (PI), **Highsmith MJ (Co-I)**, Heckman JT (Co-I) et al. The ACHIEVE LBP Trial: Goal Attainment Scaling for Chronic Back Pain in Veterans. 1/1/25-12/31/28. Department of Defense (DoD) Peer Reviewed Medical, Lifestyle and Behavioral Health Interventions Research Award. \$3,883,893 total costs. Submitted June 2024.

Highsmith MJ (PI), Heckman J (CO-I), Phillips S (CO-I), Kern M (CO-I), Courtade A (CO-I), Teran-Wodzinski (USF PI), Hill OT (CO-I). I Can DO IT: Identifying Candidates, Device Optimization and Iterative Training. A Preliminary Investigation. US Department of Veterans Affairs. RRD2 Musculoskeletal Health & Function. RFA# RX-22-03. Small Projects in Rehabilitation Research (SPIRE I21). Proposal. Project Period: 1/1/2025-12/31/2026. Total Costs: \$229,988.

Heckman J(PI), **Highsmith MJ(USF PI)**, Murphy D(CO-I), Darter B(CO-I). The Brace for Impact Study: A multi-site clinical trial of a powered knee ankle-foot orthosis (P-KAFO). US Department of Veterans Affairs. RRD2 Musculoskeletal Health & Function. RFA# RX-22-013. Small Projects in Rehabilitation Research (MERIT I01) Proposal. Project Period: 02/15/2023-02/14/2027. Total Costs: \$1,198,191

Miro RM (PI), **Highsmith MJ (Co-PI)**, Quillen WS (Co-PI). *Learn to Shoot Again program*. National Veterans Sports Programs. Solicitation number: VA-ASG-2017-01. Project period: 10/1/2016-9/30/2017. Total costs (incl F&A): \$365,832.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator), Orriola JJ(Co-I), Lewandowski AL(Co-I), Sutton BS (Co-I). *Cost Efficacy of Transtibial Interventions*. American Orthotic & Prosthetic Association American Orthotic and Prosthetic Association (AOPA). RFP#: 04012015. USF Project# 61401 _____. \$29,930. Project Period: 05/15/2015-02/01/2016.

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Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *Comparison of prosthetic socket interface design type: performance, comfort, fit, and preference in the transtibial amputee*. Department of Defense. Solicitation number: W81XWH-14-PRORP-CTA. Proposal number: OR140107. Project period: 06/01/2015-05/31/2017. Total costs: \$993,027.

Highsmith MJ (PI), Orendurff M (Co-PI), Miro RM (Study Coordinator). The Effects of Prosthetic Feet Componentry, from Different Functional Classification Levels, on Secondary Health Effects in Traumatic Lower Limb Amputees. Department of Defense. Solicitation number: W81XWH-14-PRORP-CTDA. Proposal number: OR140211. Project period: 07/01/2015-12/31/2016. Total costs: \$296,437.

Kim S (PI), **Highsmith MJ (Co-PI)**, Reed K (Co-PI), Miro RM (Research Coordinator). Optimal Gait Training Strategy for Individuals with Transfemoral Amputation. Department of Defense. Solicitation number: W81XWH-14-PRORP-CTA. Proposal number: OR140180. Project period: 09/01/2015-08/31/2018. Total costs: \$760,958.

Carey SL (PI), Dubey RV (Co-PI), **Highsmith MJ (Co-PI)**. *Multi-modal Assessment Tool for Lower Limb Prostheses*, Department of Defense, Congressionally Directed Medical Research Programs, Peer Reviewed Orthopaedic Outcomes Research Award, W81XWH-14-PRORP-ORA, Proposal #: OR140172, \$2,181,497, Project Period: 05/01/2015-4/30/2020.

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Highsmith MJ (Co-PI), Carey SL (Co-PI), Heckman JT (Co-I), Maikos J (Co-I), Hill O (Co-I). *The IM ABLE 2 Study: Understanding Long Term Outcomes to Advance Care for Warriors and Veterans Following a Neuromusculoskeletal Injury of the Lower Limb*. Department of Defense. Congressionally Directed Medical Research Programs (CDMRP) Orthotics and Prosthetics Outcomes Research Program (OPORP), \$399,928, submitted July 2023. Scored 2.4 (Scale 1.0-5.0; commonly funded at 1.5).

Haladay D (PI), **Highsmith MJ (Co-I)**, Heckman JT (Co-I) et al. *Can Goal Attainment Scaling Enhance Treatment Effectiveness and patient Outcomes in Veterans with Chronic Low Back Pain? A Multi-Site Randomized Control Trial (ACHIEVE BACK)*. 7/1/24-6/30/28. Department of Defense. Peer Reviewed Medical, Lifestyle and Behavioral Health Interventions Research Award. \$3,833,674 total costs. Submitted June 2023.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *Effectiveness of the osteomyoplastic bone bridge compared to traditional transection in below knee amputation surgery*. Department of Defense. Solicitation number: W81XWH-14-DMRDP-CRMRP-NMSIRA. Proposal number: MR140123. Project period: 10/01/2014-09/30/2016. Total project costs (incl F&A): \$ 941,969. Submitted February 2014.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *The comparative effectiveness of the sub atmospheric prosthetic socket interface in the in acute amputation*. Department of Defense. Solicitation number: W81XWH-14-DMRDP-CRMRP-NMSIRA. Proposal number: MR140124. Project period: 10/01/2014-09/30/2018. Total project costs (incl F&A): \$934,832. Submitted February 2014.

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Highsmith MJ (PI), Kahle JT (Co-PI), **Miro RM** (Research Coordinator). *Comparison of prosthetic socket interface design type: performance, comfort, fit, and preference in the transtibial amputee*. Department of Defense. Solicitation number: W81XWH-14-DMRDP-CRMRP-NMSIRA. Proposal number: MR140126. Project period: 10/01/2014-09/30/2016. Total project costs (incl F&A): \$ 992,389. Submitted February 2014.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *The Effect of Prosthetic Socket Interface Design on Perspiration and Residual Limb Skin Condition for the Transfemoral Amputee*. OR Number: OR130085. Program: Department of Defense, Congressionally Directed Medical Research Program, Clinical Trial Award. Project Dates: 09/01/2014-08/31/2016. Total Project Costs (incl. F&A): \$931,416. Submitted July 2013.

Kim SK (PI), **Highsmith MJ (Co-PI)**, Kahle JT (Co-PI), Miro RM (Research Coordinator). *Development of an Optimal Gait Training Strategy for People with Transfemoral Amputation*. OR Number: OR130327. Program: Department of Defense, Congressionally Directed Medical Research Program, Clinical Trial Development Award. Project Dates: 09/01/2014-12/31/2015. Total Project Costs (incl F&A): \$289,213. Submitted July 2013.

Highsmith MJ (PI), Kahle JT (Co-PI), Kim S (Co-I), Miro RM (Co-I), Lura DJ (Co-I). *A Comparison of Carbon Fiber Mechanical versus Microprocessor Controlled Foot-Ankle Systems in Measures of Function, Safety, and Preference*. Endolite/Blatchford. Project period: 12/01/2013-01/30/2015.

Kim SH (PI), **Highsmith MJ (Co-PI)**, Reed KB (Co-I). *Development of Gait Training Program for Individuals with Lower Limb Amputation Mechanism.*: NIH Small Research Grant Program (R03). The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). Proposed Project Period: 09/01/2013-08/31/2015. Total costs (incl F&A): \$149,055

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *Functional Performance of Limb Salvage versus Amputation: Physical Ability to Return to the Military Occupational Specialty*. Department of Defense. Solicitation number: W81XWH-12-PRORP-CTA. Proposal number: OR120212. Project Period: 07/01/2013-06/30/2017.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *The Effect of Prosthetic Socket Interface Design on Perspiration and Residual Limb Skin Condition for the Transfemoral Amputee*. Department of Defense.

Solicitation number: W81XWH-12-PRORP-CTA. Proposal number: OR120063. Project period: 07/01/2013-06/30/2015.

Highsmith MJ (PI), Kahle JT (Co-PI), Miro RM (Research Coordinator). *The Comparative Effectiveness of the Subatmospheric Prosthetic Socket Interface in Acute Amputation*. Department of Defense. Solicitation number: W81XWH-12-PRORP-CTA. Proposal number: OR120214. Project period: 07/01/2013-06/30/2017.

Highsmith MJ (PI). Travel Grant to attend the 2nd Annual Symposium on Regenerative Rehabilitation. University of Pittsburgh. Eunice Kennedy Shriver National Institute of Child Health and Development. National Institutes of Health. \$1,000. Applied Oct 2012.

Kim SH (PI), **Highsmith MJ (Co-I)**, Reed KB (Co-I). *Development of Gait Training Program for Individuals with Lower Limb Amputation*. NIH Small Research Grant Program (Parent R03). The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). \$149,000. 12% effort. Applied June 16, 2011.

Kim SH (PI), **Highsmith MJ (Co-PI)**, Reed KB (Co-I), Kahle JT (Co-I). *Gait Adaptation in Transfemoral Amputees Using Split-Belt Treadmill Training*. Orthotic and Prosthetic Education and Research Foundation (OPERF). Small Grant. \$24,998. 5% effort. Re-Submitted Jan 2012. Also submitted to the University of South Florida's Internal Grant Program Jan 2012.

Lura DJ (PI), Dubey RV(Co-I), **Highsmith MJ(Co-I)**, Carey SL(Co-I). Design, Development, and Testing of a Push-Up Device for Transhumeral and Transradial Amputees. Orthotic and Prosthetic Education and Research Foundation (OPERF). Fellowship Grant. \$4,669. 5% effort. Submitted Jan 2012.

Highsmith MJ (PI), Orendurff M (Co-PI). Reducing Osteoarthritic Risks in Wounded Warriors. Department of Defense- Department of Defense Peer Reviewed Orthopaedic Research Program (PRORP). Pre-application (#OR110150). \$750,000. Submitted September 7, 2011.

Highsmith MJ (PI), Mengelkoch LJ (Co-PI), Ambler SB (Co-I), Carrol M (Co-I). *The Effect of an Orthosis Incorporating Functional Electrical Stimulation on Gait and Stability in Chronic Stroke. A Clinical Trial*. Innovative Neurotronics. \$29,653. 8% effort. Submitted March 2011.

Kim SH (PI), **Highsmith MJ (Co-PI)**, Reed KB (Co-I). *Efficacy of Split-Belt Treadmill Training for Gait Symmetry in Transfemoral Amputees*. USF Office of Research & Innovation. Internal Grant Program. New Researcher Grant. \$15,364. 2% effort. Submitted February 15, 2011.

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Mengelkoch LJ (PI), **Highsmith MJ (Co-PI)**, Kahle JT (Co-I), Groer S (Co-I), Nielsen DH (Consult). Metabolic and Motion Analysis of Energy Storing-Return Prosthetic Feet, During Military Ambulatory Tasks: A Comparison of Amputee and Non-Amputees Soldiers. Department of Defense-Defense Medical Research and Development Program (DMRDP). \$1.7M. 9/2009.

Mengelkoch LJ (PI), **Highsmith MJ (Co-PI)**, Kahle JT (Co-I), Groer S (Co-I), Nielsen DH (Consult). Metabolic and Motion Analysis of Energy Storing-Return Prosthetic Feet, During Walking, Running, Forced Marching and

Traversing an Obstacle Course: A Comparison of Soldiers with Unilateral Transtibial or Transfemoral Amputation, and Matched Non-Amputees Department of Defense- Department of Defense Peer Reviewed Orthopaedic Research Program (PRORP). \$1.7M. 8/2009.

Dubey RV (PI), Phillips SL (Co-PI), Carey SL (Co-I), Delaurentis KJ (Co-I), **Highsmith MJ (Co-I)**, Fitzgerald SG (Co-I). *The implementation of an outcomes model for persons using upper limb prostheses*. National Institutes of Health (NIH)- NICHD-NCMRR. 6/2009.

Carey SL (PI), Dubey, RV (Co-PI). **Highsmith MJ (Co-I)**. *Motion analysis of upper limb prosthesis users for optimization of robot based kinematic model to predict compensatory motion*. National Science Foundation (NSF) – RAPD. 3/2009 \$80,000/yr, three years – total \$240,000.

Carey SL (PI), **Highsmith MJ (Co-PI)**. *Development of a marker set and biomechanical model for motion analysis of upper limb prostheses*. National Institutes of Health (NIH) –NIBIB. \$50,000/yr, two years- total \$100,000. 2/2009.

Phillips SL (PI), **Highsmith MJ (Co-I)**, Adams L (Co-I), Hesting K (Co-I). *Professional Continuing Education Course Development: Outcome Measures in Upper Limb Prosthetics*. American Academy of Orthotists and Prosthetists. Fall 2009. \$21,637. 5%.

Stephenson JB, **Highsmith MJ**, Anello S, Kietzman S, Hinckley JJ. *Efficacy of Combined Gait and Aphasia Treatment for Stroke*. Spring 2008. University of South Florida, Interdisciplinary Graduate Student Challenge Grant. \$5,000.

Highsmith MJ (PI), Kahle JT (Co-PI), Carey SC, Csavina K, Mengelkoch LJ, Dubey RV, Quillen WS. *Kinetic, Kinematic and Metabolic Comparison of Nonmicroprocessor Knee Mechanisms with the C-Leg in Household Ambulating Transfemoral Amputees- A Crossover Study*. 2/2008. Otto Bock Healthcare. \$183,853.

Harris MS, **Highsmith MJ**. *Comparative Analysis of the Touch Bionics i-Limb versus the Otto Bock SensorHand SPEED in Common ADL Tasks and by Preference with Polytraumatic Below Elbow Amputees*. 1/2008. Grant Preparation Funds. VISN8 Research Fellowship 2008 Research Competition. James A. Haley Veterans' Hospital. \$2,000.

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Phillips SL, Crane N, Lusk CP, DeLaurentis K, **Highsmith MJ**, Quillen WS, Dubey, RV. *Standardization and Development of Graded Prosthetic Sockets and Flexible Interfaces*. 8/2007. SCRA (www.scra.org). \$200,000.

Philanthropic Research Donations Received

Mayer JM and **Highsmith MJ**. Critical assessment of management of low back pain in individuals with lower extremity amputation. Sponsor: Lincoln College Education and Research Fund Inc. Type: Foundation (non-refereed - unrestricted research gift to USF Foundation). USF Foundation account #: 250292. Total Amount Funded: \$50,000. Project Period: January 2016 - December 2017. Purpose: To critically assess the management of low back pain in individuals with lower extremity amputation in order to develop resources for healthcare providers and patients.

Patents

Maitland ME, **Highsmith MJ**, Lusk CP. Conforming Artificial Finger Mechanism. U.S. Patent # 7,614,673 B2. Issued: 10 Nov 2009.

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Supplements:

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Clinical Practice Guidance and Translational Products

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Invited Lectures, Abstracts, Continuing Education Lectures & Poster Presentations:

Highsmith MJ, Fantini CM, Carroll M, Young P, Nelson K, Solis M, Swygert AJ. How to be Better Business Partners when working with the Veterans Administration Clinical Care and Contracting Team. Virtual Session. W209EF. Sep 2024, AOPA (American Orthotic and Prosthetic Association), National Meeting, Charlotte, NC.

Highsmith MJ. Keynote: The Balance Between Professionalism and Supplier: Quantifying and Scaling What We Do. Apr 2024, 2024 AOPA (American Orthotic and Prosthetic Association) Policy Forum. Washington DC.

Highsmith MJ and Pai A. RPS Insights for OPPCS Keynote. Orthotic, Prosthetic & Pedorthic Clinical Services 19th Annual VA Breakout at the American Academy of Orthotists & Prosthetists 50th Annual National Meeting. March 2024. U.S. Department of Veterans Affairs. Chicago, IL.

Highsmith MJ, Kaluf B and Alimusaj M. Future Reimbursement for Orthotic and Prosthetic Clinical Service and Devices. American Academy of Orthotists & Prosthetists 50th Annual National Meeting. March 2024. Chicago, IL.

Highsmith MJ, Cummings S, Beattie W, Supan T, Michael G, Stevens P, Langdon S, Kaluf B and Thranhardt T. Opening Session and Keynote. AAOP Past Presidents Panel. American Academy of Orthotists & Prosthetists 50th Annual National Meeting. March 2024. Chicago, IL.

Highsmith MJ. Orthotics and Prosthetics: DME Benefit Supplier or Clinical Service Provider. Jan 2024, 2024 AOPA (American Orthotic and Prosthetic Association) O&P Leadership Conference. Paradigm Shift: Looking Inward to Advance O&P. Austin, TX.

Highsmith MJ, Fantini CM, Carroll M, Robinson C, Klenow T. The History and Future of Healthcare Reimbursement in the United States: A Fire-side Chat. Session C1. Sep 2023, AOPA (American Orthotic and Prosthetic Association), National Meeting, Indianapolis, IN.

Highsmith MJ, Fantini CM, Carroll M, Nelson K, Solis M, Swygert AJ. Best Practice with the Veterans Administration Clinical Care and Contracting Team; Serving America's Best! Session B7. Sep 2023, AOPA (American Orthotic and Prosthetic Association), National Meeting, Indianapolis, IN.

Highsmith MJ, Kahle JT, Mancini S, Hill AW. Female Amputee Care Topics. Session C7. Sep 2023, AOPA (American Orthotic and Prosthetic Association), National Meeting, Indianapolis, IN.

Highsmith MJ, Kahle JT, Kannenberg A, Klenow T. Using Outcome Measures to Justify Medical Necessity, Reimbursement and Clinical Accountability in Real Life. Session C11. Sep 2023, AOPA (American Orthotic and Prosthetic Association), National Meeting, Indianapolis, IN.

Highsmith MJ, Morgan A, Love S. FD-13719: Upper Limb Amputation and Prosthetic Care. Two Legs are Better than One: Gait Deviations in Individuals with Lower Extremity Limb Differences. American Physical Therapy Association. Combined Sections Meeting. Feb 2023. San Diego, CA.

Highsmith MJ, Pai A, and Beck L. OPPCS Keynote – Transitioning Leadership. Orthotic, Prosthetic & Pedorthic Clinical Services 18th Annual VA Breakout at the American Academy of Orthotists & Prosthetists Annual National Meeting. March 2023. U.S. Department of Veterans Affairs. Nashville, TN.

Highsmith MJ. Orthotic, Prosthetic & Pedorthic Strategic Planning. How Did We Get Here? 16th Annual VA Breakout at the American Academy of Orthotists & Prosthetists National Meeting. May 2021. U.S. Department of Veterans Affairs. Washington D.C. (virtual).

Highsmith MJ, Fantini CM, Crunkhorn A. 7235: Upper Limb Amputation and Prosthetic Care. Overview of Education, Research and Clinical Issues. American Physical Therapy Association. Combined Sections Meeting. Feb 2021. (virtual).

Highsmith MJ, Courtade A, Miro RM, Kartel M, Carroll M. Research Inside O&P! Orthotic & Prosthetic Education Council of VA (OPEC). Oct 2020, U.S. Department of Veterans Affairs. Washington D.C. (virtual).

Klenow TD, Mayer J, Farrohi S, **Highsmith MJ**. Contemporary Perspectives on Low Back Pain in the Population with Lower Limb Loss. Organized Session. Sep 2019, AOPA (American Orthotic and Prosthetic Association), National Meeting, San Diego, CA.

Highsmith MJ, Solis M, Mion S. Doing Business with the US Department of Veterans Affairs 101. Business Track and AOPA VA Affairs Committee. Sep 2019, AOPA (American Orthotic and Prosthetic Association), National Meeting, San Diego, CA.

Highsmith MJ (Co-Chair & Contributor), Stevens PM, Highsmith JT, Randolph BJ, Smith DG, Muller M, Webster J, Swisher LL. Interface Design Elements and Considerations for the Transfemoral Prosthesis User. State of the Science Conference. University of South Florida. Contribution: *Heat Retention/Perspiration/Dermatologic Concerns in the Transfemoral Amputee*. Aug 2019, Tampa, FL. Sponsored by: **Highsmith MJ (PI)**: The Effect of Prosthetic Socket Interface Design on Perspiration and Residual Limb Skin Condition for the Transfemoral Amputee. Department of Defense. Solicitation number: W81XWH-14-DMRDP-CRMRP-NMSIRA. Proposal number: MR140125. USF Project #: 6140103200. Project period: 10/01/2014-09/30/2018. Total project costs (incl F&A): \$940,714.

Highsmith JT, **Highsmith MJ**. Management of Dermatologic Issues in Prosthesis Users- Part II. Grand Rounds. Feb 2019, US Department of Veterans Affairs. VA EES National Online Training Seminar.

Nofsinger C, Schindler K, Schindler E, Patten K, Ohme K and **Highsmith MJ**. Characteristics of Injury, Etiology, Functional Biomechanics, Practical Training and Coaching Applications Associated with Youth Baseball. Overview and Summary. CE Broker Tracking #20-722886. 2.5 PT CEU's. Sponsored by USF SPTRS. Delivered to Physical Therapists May 30, 2019, Tampa, FL.

Stevens PM, **Highsmith MJ**, Boone D. The Economic Science of Prosthetic Rehabilitation. Organized Session - (OS22). Mar 2019, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kahle JT, **Highsmith MJ**. The Effect of Above-Knee Prosthetic Socket Interface Designs on Skeletal Kinematics, Comfort, Gait, Balance, Mobility and Preference: A Randomized Clinical Trial. Free Paper - (FP51). Mar 2019, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Robinson C, Prusakowski PE, Kaufman KR, Campbell JH, **Highsmith MJ**, Wurdeman SR. Data Science. Special Event - (SE2). Mar 2019, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith JT, **Highsmith MJ**. Management of Dermatologic Issues in Prosthesis Users- Part 2. Grand Rounds. Feb 2019, US Department of Veterans Affairs. VA EES National Online Training Seminar.

Highsmith MJ. Implementing Evidence-Based Delivery in O&P. Jan 2019. American Orthotic & Prosthetic Association. 2019 O&P Leadership Conference. Scottsdale, AZ.

Webster JB, Miller JA, **Highsmith MJ.** Amputation Rehabilitation Clinical Practice Guidelines: Implications for Practice Innovation. Clinical Symposium (109). Oct 2018. American Academy of Physical Medicine and Rehabilitation (AAPM&R). Orlando, FL.

Highsmith MJ(chair/moderator), Klenow TD, Kahle JT, Wernke M. Prosthetic Socket Design Impact on the Amputee User in the Laboratory and Clinic. Symposium (C15). Sept 2018. American Orthotics & Prosthetics Association (AOPA) National Assembly. Vancouver, B.C. Canada.

Klenow TD, **Highsmith MJ.** The Intrepid Dynamic Exoskeletal Orthosis (IDEO): A Systematic Literature Review of Associated Outcomes. Free Paper (C18-D). Sept 2018. American Orthotics & Prosthetics Association (AOPA) National Assembly. Vancouver, B.C. Canada.

Highsmith MJ, Klenow TD, Andrews CR, Lewis KL, Bradley RC, Ward JM, Orriola JJ. Highsmith JT. Interventions to Manage Residual Limb Ulceration Due to Prosthetic Use in Lower Extremity Amputees. A Systematic Literature Review. Poster Presentation (#008) in Poster Session 2. Aug 2018. Military Health System Research Symposium(MHSRS). Kissimmee, FL.

Highsmith JT, **Highsmith MJ,** Weinstein DA. Smartphone Use to Reduce Surgical Errors. Rapid Pearl Session. American College of Mohs Surgery (ACMS). National Meeting, May 2018. Chicago, IL.

Highsmith JT, **Highsmith MJ.** Management of Dermatologic Issues in Prosthesis Users- Part I. Grand Rounds. Feb 2018, US Department of Veterans Affairs. VA EES National Online Training Seminar.

Carey SL, **Highsmith MJ.** Comparison of Voluntary Open and Cloning Terminal Devices Using the Box and Blocks Test. Free Paper - Upper Limb Prosthetics (F10). Feb 2018, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Lura DJ, **Highsmith MJ.** Gait Performance of Three Prosthetic Feet for High Performance Transtibial Amputees. Free Paper - Prosthetics (F43). Feb 2018, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ, Halsne E, Russell-Esposito E. Bioenergetics of Amputee Ambulation: Evidence Report and Point-Counterpoint. Organized Session (OS14). Feb 2018, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ, Klenow T. Outcomes Associated with the Intrepid Dynamic Exoskeletal Orthosis (IDEO): A Systematic Review of the Literature. Free Paper - Orthotics (F28). Feb 2018, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Stevens PM, **Highsmith MJ,** Kannenberg A, Weir R, Davis C. *Myoelectric and Body Power, Control Options for Upper-Limb Prosthetics: A Review of the Academy State of the Science Conference 12.* Organized Session (OS4). Feb 2018, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith JT, **Highsmith MJ.** Review of Dermatologic Issues in the Lower Extremity Amputee. Invited Lecture. Jan 2018, Hanger Education Fair & National Business Meeting. Las Vegas, NV.

Highsmith MJ. AAOP State of the Science Conference #13 Gaps Identified via RAND and Dobson Davanzo Initiatives. Podium Presentation (Research- Where Will It Take Us) in Session 2. Jan 2018. O&P Leadership Conference. American Orthotic & Prosthetic Association (AOPA). Palm Beach, FL.

Highsmith MJ. AAOP State of the Science Conference #13 Overview: Healthcare Economics in LE Prostheses. Podium Presentation (Research- Where Will It Take Us) in Session 2. Jan 2018. O&P Leadership Conference. American Orthotic & Prosthetic Association (AOPA). Palm Beach, FL.

Highsmith MJ, Andrews C, Millman C, Fuller A, Lewis K, Bradley R, Orriola J. Gait Training Interventions for Lower Extremity Amputees. A Systematic Review of the Literature. Poster Presentation (#351) in Poster Session 1. Aug 2017. Military Health System Research Symposium(MHSRS). Kissimmee, FL.

Highsmith MJ, Kahle JT, Miro RM, Carey SL, Wernke M, Lura DJ, Quillen WS. Differences in Stepping and Functional Level While Using the Genium and C-Leg Microprocessor Knee Systems. Poster Presentation (#352) in Poster Session 1. Aug 2017. Military Health System Research Symposium(MHSRS). Kissimmee, FL.

Highsmith MJ, Latlief GA, Kartel M, Ramrattan A. Dynamic Response AFO: Prescription, Rehabilitation and Management. Symposium. July 2017. Federal Advanced Amputation Skills Training Conference(FAAST). Uniformed Services University of the Health Sciences. Bethesda, MD.

Highsmith MJ, Webster J. VA/DOD Lower Limb Clinical Practice Guideline Update. General Session 3 July 2017. Federal Advanced Amputation Skills Training Conference(FAAST). Uniformed Services University of the Health Sciences. Bethesda, MD.

Highsmith MJ, Hill OT. Clinical Interventions for Veterans and Service Members Following Amputation. Knowledge Translation; Crossing the Chasm from Science to Practice. Symposium. July 2017. Federal Advanced Amputation Skills Training Conference(FAAST). Uniformed Services University of the Health Sciences. Bethesda, MD.

Kim HS, Kahle JT, Reed K, **Highsmith MJ**. *Gait Symmetry in Transfemoral Amputees*. Free Paper – Lower Limb Prosthetics (F9). Mar 2017, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Carroll M, **Highsmith MJ**. *Challenging Orthotic Case Studies*. Organized Session (OS9). Mar 2017, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Kahle JT, **Highsmith MJ**, Schepper H, Kaufman K and Orendurff MS. *A Systematic Review to Determine Post-Amputation Functional Performance Level and Develop a Prosthetic Candidacy Treatment Algorithm*. Free Paper – Lower Limb Prosthetics (F33). Mar 2017, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Highsmith MJ, Kahle JT, Bradley RC, Lewis KL, Millman C, Klenow TD, Fuller A, Andrews CR and Orriola JJ. *Gait Training Interventions for Lower Extremity Amputees: A Systematic Literature Review*. Free Paper – Lower Limb Prosthetics (F34). Mar 2017, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Highsmith MJ and Nelson LM. Improving Access to Dynamic Orthoses. Physical Medicine & Rehabilitation Services. Grand Rounds. U.S. Department of Veterans Affairs. Nov 2016.

Highsmith MJ. Survey of Current Prosthetic Research and Practice Topics. Platform Presentation. Sept 2016. Florida Physical Therapy Association (FPTA) 2016 Annual Conference & Assembly of Representatives. Orlando, FL.

Highsmith MJ and Kahle JT. Concurrent Validity of Lower Limb Domains of the Continuous Scale-Physical Functional Performance -10 (CS-PFP-10) Assessment in Transfemoral Amputees. Free Paper (C20A). Sept 2016. American Orthotic and Prosthetic Association (AOPA) National Assembly. Boston, MA.

Gondo G, **Highsmith MJ**, Ignaszewski D, Kahle JT, Kaufman KR and Orendurff MS. The Role of the Prosthetist in Promoting Evidence, Documentation and Patient Self-Advocacy to Ensure Access to Prosthetic Devices. Symposium (C21). Sept 2016. American Orthotic and Prosthetic Association (AOPA) National Assembly. Boston, MA.

Ramakrishnan T, Kahle JT, **Highsmith MJ**, Klenow TD and Reed KB. Combined Gait Asymmetry Metric based on Biomechanics: Comparison of IRC, Brimless & Able-Body. Poster Presentation (C23C). Sept 2016. American Orthotic and Prosthetic Association (AOPA) National Assembly. Boston, MA.

Klenow TD, Kahle JT and **Highsmith MJ**. A Metric to Quantify the “Dead Spot” Phenomenon in Prosthetic Gait. Poster Presentation (C23D). Sept 2016. American Orthotic and Prosthetic Association (AOPA) National Assembly. Boston, MA.

Highsmith MJ, Kahle JT, Lura DJ, Carey SL, Wernke MM, Miro RM and Quillen WS. Performance Differences in Prosthetic Feet in High Functioning Transtibial Amputees. Free Paper in “Orthotics and Prosthetics” Session. Aug 2016. Military Health System Research Symposium(MHSRS). Kissimmee, FL.

Highsmith MJ, Nelson LM, Carbone NT, Klenow TD, Kahle JT, Hill OT, Maikos JT, Kartel MS and Randolph BJ. Outcomes Associated with the Intrepid Dynamic Exoskeletal Orthosis (IDEO). Poster Presentation (#3195) in Poster Session 3. Aug 2016. Military Health System Research Symposium(MHSRS). Kissimmee, FL.

Highsmith MJ. Lower Extremity Prosthetic Restoration: Matching Technology & Potential. Platform Presentation General Session 6. July 2016. Federal Advanced Amputation Skills Training Conference(FAAST). San Pedro, CA (Fort MacArthur/L.A. Air Force Base).

Highsmith MJ, Gaunaud I, Biggs W and Heckman J. Evidence Based Practice for Prosthetic Interventions Following Transtibial Amputation. Platform Presentation General Session 6. July 2016. Federal Advanced Amputation Skills Training Conference(FAAST). San Pedro, CA (Fort MacArthur/L.A. Air Force Base).

McDowell M, Sepulveda E, and **Highsmith MJ**. Modus Trex Implementation. Platform Presentation Breakout Session 4. July 2016. Federal Advanced Amputation Skills Training Conference(FAAST). San Pedro, CA (Fort MacArthur/L.A. Air Force Base).

Randolph BJ, Curnkhorn A, Webster J, Miller J, **Highsmith MJ**, Nelson LM and Butkus J. Bringing It All Together and Implementation Strategies. Platform Presentation General Session 11. July 2016. Federal Advanced Amputation Skills Training Conference(FAAST). San Pedro, CA (Fort MacArthur/L.A. Air Force Base).

Highsmith MJ, Hafner BJ, Laakso L, Prusakowski P. Evidence Based Practice. Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.

Moe D, Pousett B, Hafner BJ, Negri C, **Highsmith MJ**. Clinical Data Collection. Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.

Highsmith MJ. Systematic Review and Meta-Analysis of 5 Areas of Transtibial Prosthetics. Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.

Raschke S, **Highsmith MJ**, Moe D, Pousett B, Kogler G, Ratto M, Schneider U. Pre-Conference Closing Panel Discussion. Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.

Schneider U, Hafner BJ, **Highsmith MJ**, Kogler G, Raschke S, Moe D and Pousett B. Future of Evidence Based Decision Making in O&P: Strategies, Needs and Technologies Panel. Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.

Highsmith MJ, Kahle JT, Miro RM, Carey SL, Wernke M, Lura DJ. Knee moment symmetry during 5° hill walking with Genium and C-Leg knees. Free Paper (#5892, Abstract #1859). May 2016. OT World. Leipzig, Germany.

Highsmith MJ, Kahle JT, Miro RM, Carey SL, Wernke M, Lura DJ. Differences in stepping and functional level while using the Genium and C-Leg microprocessor knees. Poster Presentation (#5935, Abstract #5935). May 2016. OT World. Leipzig, Germany.

Highsmith MJ. Differences in Voluntary Closing and Voluntary Opening Terminal Devices in Transradial Amputees Measured with the Continuous Scale Physical Functional Performance-10 Assessment. Free Paper (F5). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ and Highsmith JT. Dermatology in O&P. Organized Session (OS3). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Kahle JT, Wernke M, Pedtke A and Alley R. Modern Transfemoral Socket Alternatives and Technologies. The Science Behind TFAs. Organized Session (OS6). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Randolph BJ, Nelson LM and Hill OT. Federal Sector Prosthetics and Orthotics Initiatives. Organized Session (OS9). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kahle JT and **Highsmith MJ**. The Effectiveness of the Ertl Osteomyoplastic Bone Bridge Transtibial Amputation Procedure: A Systematic Review. Free Paper (F32). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ. Concurrent Validity of Lower-Limb Domains of the Continuous Scale Physical functional Performance-10 Assessment in Transfemoral Amputees. Free Paper (F65). Mar 2016, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Boone DA, **Highsmith MJ**, Howell J. *Impact of Research and Education on Clinical Practice*. Session 3. Jan 2016. American Orthotic and Prosthetic Association (AOPA). O&P Leadership Conference. Palm Beach, FL.

Robb DJ, Hill OT, Stanhope S, Pasquina P, Campbell J, **Highsmith MJ**, Clark D. *WARfighters Receiving Innovative Orthopedic Rehabilitation Symposium*. Symposium Presentation (4.0hr). 2016 Association of Military Surgeons of the United States (AMSUS). Annual Meeting. San Antonio, TX.

Gondo G, Gailey RS, **Highsmith MJ**. *Limb Loss Model System of Care: Proven Means to Improve Care of the Population We Serve!* Free Paper (C18E). Oct 2015. American Orthotic and Prosthetic Association (AOPA) National Assembly. San Antonio, TX.

Highsmith MJ, Kahle JT, Carey SL, Lura JT, Miro RM. *Is There a Difference Between Voluntary Opening or Voluntary Closing Terminal Devices in Lift Capacity and Manipulation?* Free Paper (C15B). Oct 2015. American Orthotic and Prosthetic Association (AOPA) National Assembly. San Antonio, TX.

Kahle JT, **Highsmith MJ**, Ertl JP. *The Effect of the Ertl Osteomyoplastic Bone Bridge Transtibial Amputation Procedure: A Systematic Review*. Free Paper (C8C). Oct 2015. American Orthotic and Prosthetic Association (AOPA) National Assembly. San Antonio, TX.

Kahle JT, Klenow T, **Highsmith MJ**. *A Multi-media Outcome Resource for the Orthotic and Prosthetic Clinician*. Free Paper (C5D). Oct 2015. American Orthotic and Prosthetic Association (AOPA) National Assembly. San Antonio, TX.

Highsmith MJ. *Quality Evidence. How to Grade Research for Methodologic Quality and Bias*. Florida Physical Therapy Association (FPTA). 2015 FPTA Annual Conference & Assembly of Representatives. Orlando, FL.

Orendurff MS(Chair/Moderator), Cutti A, **Highsmith MJ**. *Three Dimensional Computerized Gait Analysis: Understanding the Methods used in Research Publications on Prosthetic and Orthotic Outcomes*. Symposium Session 12. ISPO (International Society for Prosthetists and Orthotists). World Congress. 2015. Lyon, France.

Orendurff MS(Chair/Moderator), **Highsmith MJ**, Gard S, Bugnariu N, Raschke S. *Evidence-Based Practice for Prosthetic Foot Prescription*. Symposium Session 67(#FR). ISPO (International Society for Prosthetists and Orthotists). World Congress. 2015. Lyon, France.

Hahn A(Chair/Moderator), Mileusnic M, Kannenberg A, **Highsmith MJ**. *Scientific Evidence in P&O- Challenges and Possible Solutions*. Exhibitor Workshop. ISPO (International Society for Prosthetists and Orthotists). World Congress. 2015. Lyon, France.

Highsmith MJ, Kahle JT. *Functional Effects of the Genium Knee in Transfemoral Amputees Measured with the Continuous Scale Physical Functional Performance-10(CS-PFP-10) Assessment*. Free Paper Session 86(#FR). ISPO (International Society for Prosthetists and Orthotists). World Congress. 2015. Lyon, France.

Cutti A(Chair/Moderator), Kannenberg A, **Highsmith MJ**. *Over 20 Years of Microprocessor-Controlled Knees – What's the State of the Science?* Symposium Session 27 (#FR). ISPO (International Society for Prosthetists and Orthotists). World Congress. 2015. Lyon, France.

McDowell M, **Highsmith MJ**, Sepulveda E. *Immediate Post-operative Amputee Management..* May 2015, FFAST (Federal Advanced Amputee Skills Training Conference), National Training Conference, San Antonio, Tx.

Highsmith MJ. *Comprehensive Review of Prosthetic Componentry*. May 2015, FFAST (Federal Advanced Amputee Skills Training Conference), National Training Conference, San Antonio, Tx.

Highsmith MJ. *Prosthetic Management of the Medically Complex Patient*. Certificate Program (MC4). Feb 2015, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ, Kahle JT and Miro RM. *Effects of the Genium Knee in Transfemoral Amputees using Continuous Scale Physical Functional Performance – 10 Assessment (CSPFP10)*. Free Paper (F57). Feb 2015, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ, Kahle JT and Miro RM. *Performance Differences in Energy-Storing and Shock-Absorbing Prosthetic Feet in High-Functioning Transtibial Amputees: A Randomized Control Trial*. Free Paper (F56). Feb 2015, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Cummings SD, **Highsmith MJ** and Melton DH. *Peri-operative Care for the Lower-Limb Amputee*. Organized Session (OS13). Feb 2015, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ and Miro RM. *Predictors of Success on the Prosthetics Certification Exam*. Free Paper (F37). Feb 2015, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, New Orleans, LA.

Highsmith MJ, Miro RM, Carey SL, Lura DJ, Wernke M, Quillen WS and Kahle JT. *Differences in Energy Storing and Shock Adapting Prosthetic Feet in High Performing Transtibial Amputees. A Randomized Control Trial*. Free Paper (C10A). Sept 2014. American Orthotic and Prosthetic Association (AOPA) National Assembly. Las Vegas, NV.

Orendurff MS and **Highsmith MJ**. *Evaluating Evidence to Improve Clinical Care in Prosthetics and Orthotics*. Symposium (C16). Sept 2014. American Orthotic and Prosthetic Association (AOPA) National Assembly. Las Vegas, NV.

Kahle JT and **Highsmith MJ**. *The Effects of Vacuum-Assisted Suspension on Residual Limb Physiology, Wound Healing, and Function: A systematic Review*. Free Paper (C21E). Sept 2014. American Orthotic and Prosthetic Association (AOPA) National Assembly. Las Vegas, NV.

Highsmith MJ, Kahle JT, Miro RM and Mengelkoch LJ. *Bioenergetic Differences in Walking and Running with or without an Articulating Prosthetic Knee in High Performing Transfemoral Amputees*. Free Paper (C19E). Sept 2014. American Orthotic and Prosthetic Association (AOPA) National Assembly. Las Vegas, NV.

Stark G, **Highsmith MJ** and Uustal H. *Geriatric Mobility: Keeping the Aging O&P Patient Moving*. Organized Session (OS13). Feb 2014, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Highsmith MJ and Kahle JT. *Cosmetic Covering in Lower Limb Amputees*. Free Paper-Lower Limb Prosthetics (F3). Feb 2014, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Highsmith MJ, Kahle JT, Lura DJ and Sutton B. *Symposium: Microprocessor Knee Clinical Trial(C2B)*. Symposium (C2). Joint Meeting: World Congress of the International Society for Orthotics and Prosthetics (ISPO) and the National, Annual Meeting of the American Orthotic and Prosthetic Association (AOPA). September 2013. Orlando, FL.

Highsmith MJ and Kahle JT. Prosthetic Management Following Transtibial Amputation: A Systematic Review to Establish Assessment and Treatment Pathways (C2A). Symposium (C2). Joint Meeting: World Congress of the International Society for Orthotics and Prosthetics (ISPO) and the National, Annual Meeting of the American Orthotic and Prosthetic Association (AOPA). September 2013. Orlando, FL.

Highsmith MJ and Kahle JT. *Microprocessor Knee Symposium: Literature Update*. July 2013. 2013 Scientific Symposium of the Florida Association of Orthotists & Prosthetists (FAOP) and the FL Chapter of the American Academy of Orthotists & Prosthetists (FCAAOP). Platform Presentation. Orlando, FL.

Kahle JT and **Highsmith MJ**. Current Topics in Research. CE Broker Tracking #20-401303 (Publishing # 10-1421294). 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists Jul 11, 2013, Tampa, FL.

Highsmith MJ and Kahle JT. Clinical Outcome Measures for Physical Therapists. CE Broker Tracking #20-397383 (publishing #10-1410930). 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists Apr 16, 2013, Lakeland, FL.

Highsmith MJ. Movement Science and Post-Operative Orthopaedic Protocols. CE Broker Tracking #____. 3.0 PT CEU's. FPTA. West Central District Mtg. Delivered to Physical Therapists Apr 20, 2011. Nova Southeastern University. Tampa, FL

Highsmith MJ. *Overview: Post-Operative Physical Therapy for the Patient with Lower Limb Amputation*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians, Surgeons and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. Apr 2013.

Weber E, Stevens PM, **Highsmith MJ**, Grabowski A, Frasure B, Gruben K. *Current State of Externally Powered Lower Limb Prostheses: Evidence and Emerging Technologies*. Organized Session (OS5). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kim SK, Kahle JT and **Highsmith MJ**. *Can Unilateral Transfemoral Amputees Adopt a Symmetric Gait Pattern?* Free Paper-Lower Limb Prosthetics (F25). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Kahle JT, and Mengelkoch LJ. *Bioenergetic, Exertion and Cardiovascular Outcomes for Prosthetic Patients*. Clinical Techniques Course (CT1). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kahle JT, Mengelkoch LJ, Miro RM and **Highsmith MJ**. *Does the C-Leg Improve Ramp Descent Quality and Can the HAI Reliably Measure the Change?* Free Paper-Lower Limb Prosthetics (F28). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Carroll M, Carroll K, Toelle C, and **Highsmith MJ**. *Describing the Gait Cycle of Bilateral Transfemoral Amputees- A Preliminary Analysis*. Free Paper-Lower Limb Prosthetics (F24). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kim SK, Kahle JT and **Highsmith MJ**. *Can Unilateral Transfemoral Amputees Adopt a Symmetric Gait Pattern?* Free Paper-Lower Limb Prosthetics (F25). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Mengelkoch LJ, Kahle JT and **Highsmith MJ**. *Do Prosthetic Running Feet Give Transtibial Amputee Runners an Unfair Advantage Compared to Non-Amputee Runners?* Free Paper-Lower Limb Prosthetics (F20). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Lura DJ, Miro RM, Kahle JT, Carey SL, Wernke M and **Highsmith MJ**, Kahle JT. *Correlations between Anthropometrics and Joint Moments in Sitting and Standing of Transfemoral Amputees*. Poster Presentation (P11). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Kahle JT, Groer S, Shepard NT, and Kaufman KR. *The Effect of the C-Leg on Sensory Dependency During Posturography*. Poster Presentation (P3). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Miro RM, Lewandowski AL, Kahle JT, Mengelkoch LJ, and **Highsmith MJ**. *Bibliometric Analysis of Articles Published in JPO from 2009 to 2011*. Poster Presentation (P4). Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Miro RM, Lura DJ, Mengelkoch LJ, Kahle JT, Quillen WS, Dubey RV. Efficacy of Genium versus C-Leg on Functional Level, Standing and Walking Exertion and Heart Beats. Prosthetics Free Paper. International Society for Orthotics and Prosthetics (ISPO) World Congress. Feb 2013. Hyderabad, India.

Highsmith MJ, Miro RM, Lura DJ, Mengelkoch LJ, Kahle JT, Quillen WS, Dubey RV. An Interim Analysis of the Effect of the Genium Knee on Balance and Stability. Prosthetics Free Paper. International Society for Orthotics and Prosthetics (ISPO) World Congress. Feb 2013. Hyderabad, India.

Highsmith MJ, Whisenant C and Ackley T. Upper Limb Prosthetics- A Review of the Literature. (Module 3). Invited Lecture. American Academy of Orthotists and Prosthetists (AAOP) One Day Seminar Series on Contemporary Management of the Upper Limb Prosthetic Patient. Delivered to Prosthetists and Orthotists Oct 2012. Rosemont, IL.

Highsmith MJ and Carlson M. Contemporary Principles of Dermatology in the Prosthetic & Orthotic Client: A Practitioner's Perspective. (Module 3). Invited Lecture. American Academy of Orthotists and Prosthetists (AAOP) One Day Seminar Series on Dermatology and Wound Care for Prosthetists and Orthotists. Delivered to Prosthetists and Orthotists Oct 2012. Rosemont, IL. Repeated as Certificate Program (DW4): Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ. Skin Tissue Mechanics. (Module 2). Invited Lecture. American Academy of Orthotists and Prosthetists (AAOP) One Day Seminar Series on Dermatology and Wound Care for Prosthetists and Orthotists. Delivered to Prosthetists and Orthotists Oct 2012. Rosemont, IL. Repeated as Certificate Program (DW3): Feb 2013, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ. *Overview: Post-Operative Physical Therapy for the Patient with Lower Limb Amputation*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. Oct 2012.

Highsmith MJ. *Normal Human Locomotion*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. Oct 2012.

Kahle JT and **Highsmith MJ**. Transfemoral Interfaces with Vacuum Assisted Suspension. Comparison of Gait, Balance, Biomechanics and Subjective Measures: Brimless versus Ischial Containment. Thranhardt Lecture. Sept 2012, AOPA (American Orthotic and Prosthetic Association), National Meeting, Boston, MA.

Highsmith MJ, Kahle JT, Sutton BS and Kaufman KR. Microprocessor Knee Symposium: A Literature Update from Three Perspectives, Safety, Energy Efficiency & Health Economy. Sept 2012, AOPA (American Orthotic and Prosthetic Association), National Meeting, Boston, MA.

Messana C, Uustal H and **Highsmith MJ**. Dermatology for Orthotists and Prosthetists. Sept 2012, AOPA (American Orthotic and Prosthetic Association), National Meeting, Boston, MA.

Highsmith MJ and Kahle JT. Current Topics in Prosthetic Research. CE Broker Tracking # 20-362816. 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists Aug 7, 2012, Lakeland, FL.

Highsmith MJ and Kahle JT. Determining Functional Level for the Lower Extremity Amputee. CE Broker Tracking # 20-360463. 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists Jul 12, 2012, Lakeland, FL.

Highsmith MJ and Picken R. *Transtibial Prosthetic Systems, Biomechanics and Recommendations*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. April 2012.

Michael JW and **Highsmith MJ**. *Transtibial Prosthetic Systems, Biomechanics and Recommendations*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. April 2012.

Highsmith MJ. *Normal Human Locomotion*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. April 2012.

Highsmith MJ. *Overview: Post-Operative Physical Therapy for the Patient with Lower Limb Amputation*. Orthotics-Prosthetics 725B: Lower and Upper Limb Orthotics and Prosthetics for Physicians and Therapists (4-day Course). Northwestern University Prosthetic-Orthotic Center. Feinberg School of Medicine. Chicago, IL. April 2012.

Kahle JT, **Highsmith MJ**. *Sub-Atmospheric Transfemoral Interfaces-Comparing Ischial Containment to Brimless*. Free Paper-Lower Limb Prosthetics (F67). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Carroll MK, Toelle CA, Kim SH, Ambler SB, **Highsmith MJ**. *Walkaide Efficacy on Gait & Multi-directional Stepping in a Child with Cerebral Palsy*. Free Paper-Lower Limb Orthotics (F4). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Hartsell HB, Ambler SB, Murdoch KB, **Highsmith MJ**. The Effectiveness of Unloader Bracing to Assist Healing Following Tibial Baseplate Loosening After Unicompartmental Arthroplasty: A Functional Outcomes Analysis. Orthopaedic Section Abstracts: Poster Presentations. Annual Conference of the American Physical Therapy Association 2012.

Cummings S, **Highsmith MJ**, Kahle JT, Carson R, Stevens PM, Carroll K, Gailey RS. *Interdisciplinary Management of Patients with Complex Lower Limb Amputations*. AAOP/APTA Joint Session. Organized Session (OS2). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA. Repeated at APTA 2012 (June), Tampa, FL.

Carey SL, Lura DJ, Dubey RV, Kahle JT, **Highsmith MJ**. *Kinematics of Transfemoral Amputees During the Sit to Stand Movement*. Free Paper-Lower Limb Prosthetics (F10). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Highsmith JT, **Highsmith MJ**, Carroll K. *Skin Issues in O&P*. Organized Session (OS6). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Highsmith MJ, Kahle JT, Bongiorno D, Sutton B, Groer S, Kaufman K. *Efficacy of the C-Leg in Safety, Bioenergetics & Healthcare Cost*. Free Paper-Lower Limb Prosthetics (F18). Mar 2012, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Highsmith MJ and Kahle JT. Lower Extremity Prosthetic Experience. CE Broker Tracking # 20-333836. 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists Nov 15, 2011, Lakeland, FL.

Highsmith MJ. Kanas J and Kahle JT. Hands-On Outcome Measures for Amputees using the Portable Gaitrite System. New Jersey Chapter of the American Academy of Orthotists and Prosthetists. Nov 2011. Atlantic City, NJ.

Highsmith MJ. Outcome Measures for the Assessment of Amputee Gait. New Jersey Chapter of the American Academy of Orthotists and Prosthetists. Nov 2011. Atlantic City, NJ.

Highsmith MJ, Bodkin D, Noe S and Kahle JT. Rehabilitation of the Person with Multiple Limb Amputation: A Review of the Literature. (Module 3). Invited Lecture. American Academy of Orthotists and Prosthetists (AAOP) One Day Seminar Series on Prosthetic Management of Multiple Limb Deficiency. Delivered to Prosthetists and Orthotists Oct 2011. Chicago, IL.

Highsmith MJ, Kahle JT, Bongiorno DR, Sutton BS, Groer S and Kaufman KR. *Safety, Bioenergetic and Healthcare Cost Efficacy of the C-Leg Microprocessor Prosthetic Knee: A Review of the Literature.* Blatchford Lecture. Oct 2011, ISPO (International Society for Prosthetists and Orthotists- UK National Member Society), Annual Scientific Meeting, London, England.

Highsmith MJ and Kahle JT. *Current Concepts in Evaluating and Improving Amputee Gait- Part 2.* 3.0 PT CEU's. CE Broker Tracking # 20-330019. FPTA Course # CP110817432/3. Delivered to Physical Therapists 1) Tampa, FL @ West Central District Meeting of the FPTA Aug 2011 and 2) Lakeland, FL Sept 2011.

Highsmith MJ and Nelson LM. *Advanced Amputee Gait Training.* National Presentation with Accompanying Laboratory Session. Amputation System of Care (ASoC) Conference, titled 'Best Practices in Amputation Care: Implementation, Integration and Collaboration Across the System'. U.S. Department of Veterans' Affairs. July 2011. Indianapolis, IN.

Kahle JT and **Highsmith MJ.** Current Topics in Prosthetic Research. CE Broker Tracking # 20-316765. 2.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics and USF SPTRS. Delivered to Physical Therapists May 2011, Lakeland, FL.

Highsmith MJ. Kinesiologic Principles- *An Overview with Selected Examples by Region & Function.* Basic Science Lecture for USF Orthopaedic Core Lecture Series. Delivered to USF Orthopaedic Surgical Residents March 11, 2011. Carol & Frank Morsani Center for Advanced Healthcare. Tampa, FL

Highsmith MJ, Kahle JT and Stevens PM. *Gait Outcomes for Prosthetic Patients.* Clinical Techniques Course. Mar 2011, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Carey SL, **Highsmith MJ,** Dubey RV, Lura DJ, Wernke M. *Golf Hand Prosthesis Performance.* Free Paper/Platform Presentation. Mar 2011, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Lura DJ, Wernke M, Saad J, **Highsmith MJ** and Carey SL. *Standing Stability in Transfemoral Amputees.* Free Paper/Platform Presentation. Mar 2011, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Kahle JT and **Highsmith MJ.** Biomechanical Superiority of Brimless versus Ischial Ramus Containment (IRC) Sub-Atmospheric Transfemoral Interfaces. Free Paper/Platform Presentation. Mar 2011, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ, Kahle JT, Lura DJ, Carey SL, Csavina KR, Dubey RV, Quillen WS. Sitting and Standing in Transfemoral Amputees. Free Paper/Platform Presentation. Mar 2011, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.

Highsmith MJ. Review of the Evidence for High Activity Users (Module 8). Invited Lecture. American Academy of Orthotists and Prosthetists (AAOP) One Day Seminar Series on Prosthetic & Orthotic Management of the High Activity User. Delivered to Prosthetists and Orthotists Oct 2010. Chicago, IL. Repeated program twice at: 1)Hanger Education Fair. Reno, NV in Feb 2011 and 2) AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL in Mar 2011 Orlando, FL.

Highsmith MJ. Current Concepts in Evaluating and Improving Amputee Gait. Part 1. CE Broker Tracking # 20-287798. 3.0 PT CEU's. Sponsored by Integrity Prosthetics and Orthotics, Select Physical Therapy and USF SPTRS. Delivered to Physical Therapists Oct 2010, Lakeland, FL.

Mengelkoch LJ, **Highsmith MJ**, DeLaurentis K, Carey SL, Morris ML. Comparison of the metabolic demands of three mobility devices during a standardized dance activity. Abstract. Annual Conference for the Annual Meeting of the International Association of Dance, Medicine & Science (IADMS). Oct 2010. Birmingham, England.

Morris ML, DeLaurentis K, **Highsmith MJ**, Carey SL, Mengelkoch LJ. Evaluation of an assistive mobility device for dance training and performance. Abstract. Annual Conference for the Annual Meeting of the International Association of Dance, Medicine & Science (IADMS). Oct 2010. Birmingham, England.

Hart-Hughes S, **Highsmith MJ**. An Evidence-Based Guide to Quantifying Fall Risk in Persons with Lower Extremity Amputation(s). Southeastern Regional Amputation Conference. Department of Veterans' Affairs (VISN 8) Employee Education System. Sept 2010. Tampa, FL.

Highsmith MJ, Hart-Hughes S. Outcome Measures for Assessment of Gait & Balance. Clinical Laboratory Skills Session-Internal National VA Practitioner Education. VA Amputation Skills Conference. Department of Veterans' Affairs Employee Education System. June 2010. Tampa, FL.

Highsmith MJ, Kahle JT, Fox JL, Shaw KL, Quillen WS, Mengelkoch LJ. Transfemoral Rock Climbing. Podium Presentation. Louisiana Academy of Orthotists and Prosthetists. May 2010. Lafayette, LA.

Highsmith MJ, Schulz BW, Hart-Hughes S, Latlief GA, Phillips SL. Temporospatial Gait Parameters. Podium Presentation. Louisiana Academy of Orthotists and Prosthetists. May 2010. Lafayette, LA.

Highsmith MJ, Kahle JT, Fox JL, Shaw KL, Quillen WS, Mengelkoch LJ. Comparing the Energy Required to Climb an Indoor Rock Wall Utilizing five Different Prosthetic Configurations. Free Paper/Platform Presentation. Feb 2010, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.

Schulz BW, Hart-Hughes S, Latlief GA, Phillips SL, **Highsmith MJ**. Asymmetries in Spatiotemporal Gait Parameters of Transtibial and Transfemoral Amputees. Poster Presentation. 3rd International Congress of Gait and Mental Function (GAIT2010). Washington, D.C., Feb 2010.

Highsmith MJ. Gaitrite System and Other Methods to Develop Outcome Measures for Amputee Clinics. Amputation System of Care: Teams, Treatment and Technology Conference. U.S. Department of Veterans' Affairs. June 2009. Seattle, WA.

Highsmith MJ. How to use Gait Analysis Clinically. Amputation System of Care: Teams, Treatment and Technology Conference. U.S. Department of Veterans' Affairs. June 2009. Seattle, WA.

Highsmith MJ. C-Leg Benefits and Recent Research. FPTA course #CP90013929. 2.0 PT CEU's. Funded by Westcoast Brace & Limb. Delivered to Physical Therapists May 2009, Tampa, FL.

Highsmith MJ. Fall Risk Associated with Lower Limb Amputees. 10th Annual Conference: "Transforming Fall Management Prevention Practices. Platform Presentation. May 2009, University of South Florida and James A. Haley Veterans' Hospital VISN 8 Patient Safety Center of Inquiry. Clearwater, FL.

Highsmith MJ. Quality of Life & Other Outcomes. Symposium: Microprocessor Prosthetic Knees: The Changing Face of Research. Platform Presentation. March 2009, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Highsmith MJ. Decreased Ambulatory Heart Rate in a Geriatric Client Following Accommodation with the C-Leg and Physical Therapy Intervention. Free Paper/Platform Presentation. March 2009, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Atlanta, GA.

Highsmith MJ, Mengelkoch LJ, Kahle JT, Fox JL, Shaw KL, Quillen WS. Metabolic Demands of Rock Climbing in Unilateral Transfemoral Amputees. Poster Presentation. University of South Florida, USF Health Research Day. Feb 2009. Tampa, FL.

Highsmith MJ. Physical Therapy Intervention Suggestions for the Client with Hip Disarticulation. Hanger Education Fair. Reno, NV. Feb 2009.

Highsmith MJ. Two invited lectures: 1) Normal Transtibial Gait. and 2) Abnormal Transtibial Gait. Delivered as part of the Fellowship Certificate Program of the American Academy of Orthotists and Prosthetists. Hanger Education Fair. Reno, NV. Feb 2009.

Highsmith MJ, Kahle JT, Lura DJ*, Carey SL*, Dubey RV, Quillen WS. Kinetic Evaluation of Powered versus Non-Powered Prosthetic Knee Mechanisms. Abstract and Poster Presentation. Clinical Translational Science Awards (CTSA) KL2, K12 and K30 Clinical Research Scholars and Association for Clinical Research Training (ACRT). Washington, D.C. 2008 National Annual Meeting.

Carey SL*, **Highsmith MJ,** Dubey R. Motion Analysis of Transradial Prosthesis while Lifting a Box for Development of a Biomechanical Model. Abstract. American Society of Mechanical Engineers (ASME) Summer Bioengineering Conference. Marco Island, FL. June 2008.

Highsmith MJ, Kahle JT. Comparison of C-Leg microprocessor knee with non-microprocessor knees on walking tests, stair descent, questionnaire, preference, stumbles and falls. Poster Presentation. University of South Florida, USF Health Research Day. Feb 2008. Tampa, FL.

Highsmith MJ. Kinematic Evaluation of Terminal Devices for Kayaking with Upper Extremity Amputation. Free Paper/Platform Presentation February 2008, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.[†]

Mahler S*, Evans R*, **Highsmith MJ,** Lusk CP, Maitland ME, Dubey RV. Tensile and on-water testing of passive-function, cylindrical grasp terminal device for kayaking: The USF Kayak Hand. Poster Presentation February 2008, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Orlando, FL.[†]

Highsmith MJ. Basic Gait Training with the Transfemoral Amputee. FPTA course #CP71011387. 1 PT CEU. Funded by Westcoast Brace & Limb. Delivered to Physical Therapists Oct 2007, Tampa, FL.

Highsmith MJ. Kinematic Analysis of Functional and Recreational Activities with the Upper Extremity Amputee. Podium Presentation. Louisiana Academy of Orthotists and Prosthetists. July 2007. Shreveport, LA.

Kahle JT, **Highsmith MJ.** The Prosthetic Experience. FPTA course #CE70210834. 3 PT CEU's. Funded by Westcoast Brace & Limb. Delivered to Physical Therapists Feb 2007, Tampa, FL.

Carey SL*, **Highsmith MJ,** Dubey R. Compensatory Motion During a Bilateral Lifting Task for Transradial Prosthetic Design. Abstract. American Society of Mechanical Engineers (ASME) Summer Bioengineering Conference. Keystone, CO. June 2007.

Maitland ME, **Highsmith MJ,** Carey SL*, Koelsch K, Lusk C. A Simple Artificial Hand for Cylindrical Grip: The USF Kayak Hand. Abstract. WCPT (World Confederation for Physical Therapy), 15th International Conference "World Physical Therapy 2007". Vancouver, Canada.. June 2007.[†]

Maitland ME, Lusk CP, **Highsmith MJ,** Carey SL*. A non-anatomical grasp mechanism for artificial hands. Abstract. 12th World Congress of the International Society for Prosthetics and Orthotics. Vancouver, Canada, July 29 –August 3, 2007.^{†, ‡}

Carey SL*, Dubey R, **Highsmith MJ,** Maitland ME. Effects of Mass on Upper Limb Joint Angles for Prosthetic Design: A Pilot Study. Poster Presentation October 2006, BMES (Biomedical Engineering Society), Annual Meeting, Northwestern University, Chicago, IL.

Highsmith MJ. Effects of Ambulation in a Fall Protection Harness System with Transfemoral and Knee Disarticulation Subjects. *A Pilot Study.* Poster Presentation March 2006, AAOP (American Academy of Orthotists and Prosthetists), National Meeting, Chicago, IL.[†]

Highsmith MJ. C-Leg Comparison. Podium Research Presentation. Louisiana Academy of Orthotists and Prosthetists. June 2006. Kenner, LA.

Highsmith MJ, Kahle JT. Lower Extremity Prosthetics: Basic & Intermediate Overview. FPTA course # CE5109249. 2.5 PT CEU's. Funded by Westcoast Brace & Limb. Delivered to Physical Therapists Nov 2005, Tampa, FL.

Kahle JT, **Highsmith MJ**. Comparative Analysis of Microprocessor and Mechanically Controlled Prosthetic Knee Joints: Patient Performance and Outcomes. FPTA course # CE5048931. 2.5 PT CEU's. Funded by Westcoast Brace & Limb. Delivered to Physical Therapists Aug 2005, Tampa, FL.

Textbook Authorship

Highsmith MJ and Highsmith JT. Skin Pathologies Associated with Amputation. Volume 2: Management Issues. Section 4. Ch 52. p653-671. In: Atlas of Amputations and Limb Deficiencies. Surgical, Prosthetic and Rehabilitation Principles. 5th ed. Volume 2. Editors: Krajchich JJ, Pinzur MS, Potter BK and Stevens PM. American Academy of Orthopaedic Surgeons. Rosemont, IL. ©2023.

Highsmith MJ and Highsmith JT. Skin Problems in the Amputee. Volume 2: Lower Limb Management Issues. Section 4. Ch 56. p677-696. In: Atlas of Amputations and Limb Deficiencies. Surgical, Prosthetic and Rehabilitation Principles. 4th ed. Volume 2. Editors: Krajchich JJ, Pinzur MS, Potter BK and Stevens PM. American Academy of Orthopaedic Surgeons. Rosemont, IL. ©2016.

Congressional Roundtables, Inquiries, Tracking Reports

Office of Strategic Integration (OSI)/ Veterans Engineering Resource Center (VERC) 10A5. Legislative Implementation Team. Strategic Policy Council Update and Tracking Report on VHACO Program Office Data Update for the Omnibus Act Legislation. Schulz B, Glass A, Solis M, Webster J, **Highsmith MJ**, Randolph BJ, Lanzendorfer M. 29AUG2018.

HVAC Congressional Roundtable Discussion on VA Orthotics & Prosthetics. (25JUL2018. Washington DC). (Reps: Dunn, Brownley, Radewagen, Takano, Kuster). Chaired VA team and led follow up response. VA Attendees: Heckman J, Jones K, Kalett E, Barnett I.

Clarification of Policy "VHA Handbook 1173.9, Footwear and Foot Orthoses". Views #00086031. 24AUG2018. Congresswoman Brooks.

CTR 18-97	Orthotist and Prosthetist Workforce.	Lead Author	Apr2018
CTR 18-136	Specialized and Modular Prosthetics	Lead Author	May2018
CTR 18-54	Prosthetic Digital Health Technology.	Contributor	Jan2018

VA Policy and Initiative Contributions

Highsmith MJ, Fantini C, Bott J, McDowell ML. VHA Orthotics, Prosthetics and Pedorthics Clinical Services (OPPCS) National OP Residency Program White Paper. Presenting the case for strategic growth aligned with VHA Healthcare and the Office of Academic Affiliations (OAA) Educational Missions. (Submitted October 2020).

Highsmith MJ, McDowell ML, Ibacache R, Bott J, Fantini C. Coding, Market Analyses and Contract Guidance for Prosthetic Limb and/or Custom Orthotic Device Procurement. VHA Directive 1045. Department of Veterans Affairs. Veterans Health Administration. Published 12 May 2020.

Orthotic, Prosthetic and Pedorthic Clinical Services Program Office. Directed creation of charters for two councils: 1) Coding Guidance Council [CGC] and 2) Market Analysis & Research Council [MARC] which were both approved by the VA Office of General Council, the Chief of Rehabilitation & Prosthetics Services and the Chief for VA Operations (10N). CGC is comprised of O&P clinicians and serves to provide coding guidance on O&P technology for VA. MARC is comprised of O&P clinicians, physicians, engineers, contracting and procurement specialists to provide pricing guidance for O&P technologies and other products such as Independent Government Cost Estimates (IGCE). Chartered and staffed between Jan and Mar 2020.

Highsmith MJ, McDowell ML, Ibacache R. Accreditation of VA Orthotic, Prosthetic, and Pedorthic Facilities and Personnel Credentialing. VHA Directive 1936 (formerly 2006-065). Department of Veterans Affairs. Veterans Health Administration. Published 16 Sept 2019.

Highsmith MJ and Fantini C. Clinical Orthotics & Prosthetics Services within the Prosthetics and Sensory Aids Service at the Edward Hines Jr. VA Medical Center. Summary of Site Visit, 2/12/19 – 2/14/19, and Resulting Recommendations.

Orthotic and Prosthetic Office Hours to Advance VA O&P Facility Accreditation and Remote Order Entry System (ROES) Implementation. Call sequence from June 14 – July 24, 2018: Conducted calls each Tuesday and Thursday for a total of 12 calls. Overall attendance 439 averaging approximately 36 per call with a maximum of 58 on each of the first two calls. Directed creation of a VACO Accreditation spotlight report and increased use of the ROES.

Orthotic and Prosthetic Office Hours to Initiate Same Day Service (SDS) for O&P Care at VA. Call sequence from Nov 7– Dec 21, 2017: Conducted calls twice per week for a total of 6 calls. Directed creation of a VA network wide self-certification process leading to 100% implementation of SDS JAN2018.

Other Creative Educational Deliverables

Website

University of South Florida, School of Physical Therapy & Rehabilitation Sciences, “Demonstration Project on Prosthetics and Orthotics” Website. Site co-developed with Quillen WS, Ippolito C, Pringle S, Regonini M. Website hosts free educational modules and patient pamphlets on orthotic and prosthetic topics (Highsmith MJ module contributions listed below) in addition to text and other web resources. URL is: oandp.health.usf.edu

Educational Modules

Dermatology II. Prosthetic & Anatomic Considerations influencing dermatopathology in the client with amputation *Module II of II*. Highsmith JT, Highsmith MJ, Shenefelt PD.

Dermatology I. Prosthetic & Anatomic Considerations influencing dermatopathology in the client with amputation *Module I of II*. Highsmith MJ, Highsmith JT, Kahle JT.

Prosthetic Socks. Highsmith MJ.

Prosthetic Feet. Highsmith MJ.

Prosthetic Knees. Classification and Overview. Highsmith MJ, Kahle JT.

Socket Theory: Transtibial 1- Patella Tendon Bearing Socket Theory. Highsmith MJ, Kahle JT.

A Primer on Ace-Wrapping and Other Compressive and Protective Dressings for the Amputated Residual Limb. Highsmith MJ.

Gait: Transtibial Amputee. Highsmith MJ.

Epidemiology and Statistics: Associated with Limb Loss and Deficiency. Highsmith MJ.

Orthotic Overview. Kahle JT. Bauer GS. Highsmith MJ.

Patient Pamphlets

Transtibial Prosthetics. A Patient Care Manual for the New Amputee. Mountain A, Lemonis C, Highsmith MJ, Phillips SP, Sanford S.

Transfemoral Prosthetics. A Patient Care Manual for the New Amputee. Mountain A, Lemonis C, Highsmith MJ, Phillips SP, Sanford S.

Ankle Foot Orthosis Guide. Phillips SP, Sanford S, Highsmith MJ.

Editorial

Peer Review

Grants

2024	VA RR&D Mentored and Career Development Awards (RRD8)- Post-Doctoral Grant Reviewer.
2015-	VA RR&D Rehabilitation Engineering and Prosthetics/Orthotics Portfolio (RRD5)- Spire & Merit Grant Reviewer
2014-	FPTA Research Committee- Abstract & Linda Crane Grant Reviewer
2011	Chief Scientist Office for Population and Health Service Research. Scotland, UK- Grant Reviewer
2011, 2014	Israel Science Foundation- Grant Reviewer
2009-10	Orthotic and Prosthetic Education and Research Foundation (OPERF)- Grant Reviewer

Journals

2018	Journal of Neuroengineering & Rehabilitation- Special Topic Edition
2015-16	Journal of Rehabilitation, Research and Development (JRRD)- Associate Editor
2015-	Journal of Prosthetics and Orthotics (JPO)- Associate Editor
2013-14	Technology & Innovations Journal- Guest Editor
2013-	Physical Therapy- Manuscript Reviewer
2012-	Gait and Posture- Manuscript Reviewer
2011-13	Clinical Biomechanics- Manuscript Reviewer
2011-	Prosthetics and Orthotics International- Manuscript Reviewer
2010-11	Ergonomics- Manuscript Reviewer
2009-12	Journal of Engineering in Medicine (JEIM)- Manuscript Reviewer
2008-2015	Journal of Rehabilitation, Research and Development (JRRD)- Manuscript Reviewer
2008	Topics in Geriatric Rehabilitation- Manuscript Reviewer

Abstract & Poster Review

2017	VA/DoD EACE Federal Advanced Amputation Skills Training Conference
2016, 2017	Military Health Service Research Symposium (MHSRS)

Invited Textbook Reviews

Text book Review for Pearson Education, Inc., Prentice Hall Health, Upper Saddle River, NJ 07458 (9/2005) on the following Title: Shurr DG, Michael JW. Prosthetics and Orthotics. 2nd ed. ©2002. ISBN 0-8385-8133-1.

Text book Review for Elsevier-Global Medicine Group (9/2005) on the following title: Brotzman SB, Wilk KE. Clinical Orthopaedic Rehabilitation. 2nd ed. Mosby. ©2003. ISBN 0-323-01186-1.

Teaching

University of South Florida. Morsani College of Medicine

EIN 4243C	Human Factors. Department of Industrial & Management Systems Engineering. USF College of Engineering. Guest Lecturer. Spring 2014.
GMS 6841	Fundamentals of Translational Research. Primary CI: S. Antonia. Guest Lecturer: MJ Highsmith. Spring 2010-'12.

School of Physical Therapy & Rehabilitation Sciences

PHT 7264	Clinical Problem Solving 1. Primary CI: J. Stephenson. Guest Lecturer: "LE Orthoses for the Neurologically Involved Client"-2hrs. MJ Highsmith. DPT pgm. Fall 2011.
PHT 6178	Movement Science 2. Primary CI: MJ Highsmith (Tissue Biomechanics & Regional Kinesiology). Guest Lecturers: SH Kim & JB Stephenson (Motor Control/Learning) and LJ Mengelkoch (Exercise Physiology). Spring 2010-'13.
PHT 8179	Movement Science 3. Primary CI: MJ Highsmith (Regional, Gait & Functional Biomechanics). Lab Asst: SL Carey. Fall 2008-'13.
PHT 8702	Advanced Prosthetics and Orthotics. Primary CI: MJ Highsmith. Lab Asst: JT Kahle. Fall 2007, Spring 2008, Fall 2010-'15.

PHT 8266	Clinical Problem Solving 3. Primary CI: D Newman. TA for Prosthetic Unit: MJ Highsmith. Fall 2007. Fall 2008, '09.
PHT 7151	Health Promotion and Wellness. Primary CI: K Shaw. Asst CI: MJ Highsmith. (Preparation of DPT as Primary Care providers in Direct Access environment. Screening of at risk populations, individuals and health program development). DPT pgm. Spring 2007-'09.
PHT 6284	Scientific and Professional Foundations of Physical Therapy 1. (Overview of PT interventions: Gait, Transfers and O&P). Primary CI: K. Shaw. Guest Lecturer (Prosthetics Unit) & TA (Modalities): MJ Highsmith. Fall 2006-'08.
PHT 6174	Movement Science I. Primary CI: MJ Highsmith & J. Stephenson. (Introductory Kinesiology, Biomechanics, Neurology, Gait, Exercise Physiology). DPT pgm. Fall 2006, '07-'13.
PHT 6285	Scientific & Professional Foundations of Physical Therapy 2. (Physical Therapy Test & Measurement Techniques). Primary CI: J. Stephenson. Guest Lecturer: MJ Highsmith. DPT pgm. Spring 2006-2008.
PHT 8724	Anatomical Basis of Physical Therapy and Rehabilitation (Elective). CI: O. Arslan. Co-I: D. Cameron. Course Liasons: MJ Highsmith and JC Garrison. Fall 2007.
BMS 6830	Physical Diagnosis. Primary CI: R. Schrot. Lab Asst & Group Preceptor: MJ Highsmith. DPT & MD pgm. Fall 2008-2010
BMS 6100	Gross Human Anatomy. Primary CI: O. Arslan. Course Liason & Guest Lecturer: MJ Highsmith. B2 Block/Fall/Spring 2006-'08.
BMS 6500	Physiology. Primary CI: S Nazian, X Tigno. Case Preceptor: MJ Highsmith. DPT & MD pgm. Spring/Fall 2006-2009.
PHT 6735	Physical Therapy Science IV. Primary CI: J Stephenson. (Interventions for the complex patient). MSPT pgm. Fall 2006.
University of St. Augustine for Health Sciences. Institute of Physical Therapy	
PHT 5702	Prosthetics. Primary CI: MJ Highsmith. Lab Asst: K Carroll. (Online Prosthetics & Amputee Rehabilitation Theory with One Day, Hands-On Laboratory Experience). 2004 – Present. Three semesters per academic year.

Service Activities

June 2013	Amputee Coalition of America. National Conference. 2 Presentations: 1) Highsmith MJ and Kahle JT. Current Topics in Prosthetic & Amputee Research. 2) Highsmith MJ, Kahle JT, Suttles J. Living with Your Level of Limb Loss- Above-Knee Amputation.
Nov 2010-12	Camp No Limits. Kahle JT, Highsmith MJ and Quillen WS. Team building and activity participation day for children living with limb loss including siblings and parents. Approximately 30 campers and 40 parents/siblings attended. Twenty DPT students assisted. November 6, 2010. Sand Key Park, Clearwater, FL. http://hscweb3.hsc.usf.edu/health/now/?p=15506
Aug 2010	Health Maintenance for Individuals Living with Limb Loss. Invited Presentation at the 2010 National Conference of the Amputee Coalition of America. Also assisted in the Amputee Gait Clinic, supervising PT students, assessing and discussing tips to improve gait of clients with amputation. Aug 26, 2010. Irvine, CA.
Mar 2007-12	Health Pre-Professions Organization (HPPO) at Hillsborough Community College (HCC). Advisor, Consultant, Speaker for Physical Therapy, Prosthetics and Orthotics. Founder and Senior Advisor is Professor Elizabeth McCullough, MS.

June 2009	Amputee Coalition of America. National Conference. Myers DD, Highsmith MJ. Building Your Body as an Instrument of Change. A two-part workshop for leading your life from the inside out. Health Maintenance Presentation.
Mar 2009	Amputees Together (support group). Presented strategies to minimize falls and simple home exercises to stay fit.
July 2007	2 nd Annual O&P Extremity Games. University of South Florida representative, kayak event judge and Medical and PT student supervisor. Event hosted by College Park Industries. Held in Orlando, FL. Articles in PT Magazine. Nov 2007 and online at http://hscweb3.hsc.usf.edu/health/now/?p=203 Aug 2007.
June 2007	Amputee Coalition of America. National Conference. Gait analysis physical therapy clinician volunteer. 2 day clinic supervised by Robert S. Gailey, PT, PhD to analyze gait of LE amputees and offer suggestions based on observational analysis. Atlanta, GA.
Jan 2007	Amputees Together (support group). Presented with colleague Maureen Dunleavy-Daly, PT, DPT to amputees about typical timelines of rehabilitative/prosthetic milestones and the benefits of physical therapy in recovery and healing.
July 2006	O&P Extremity Games. University of South Florida representative, Rock Climbing event judge and graduate PT student supervisor. Event hosted by College Park Industries. Held in Orlando, FL. Articles in <i>PT Magazine</i> . Sept 2006; 14(9):60 and <i>The FPTA Update</i> Sept 2006.
Jan 2004- Present	APTA group leader for “Hooked on Evidence” professional research initiative. Topic is PT intervention for patients with LE amputation. Five articles reviewed to date.
July 2002	Pro Bono Project- Organized and delivered general health information and free clinic information to homeless persons of St. Petersburg, FL.
March 2002	PIPSA/AHEC- Eisenhower Middle School- instructor for student tobacco addiction prevention program.

Expert Witness

2013-2014	Case No.:5:12-cv-00146-Oc-99TJC-TBS	Pike v. Trinity Highway Products	Mateer Harbert.
2011	Case No.:3:10-cv-00877-MMH-MCR	Favreau v. Wal-Mart Stores East	Bozeman, Jenkins & Matthews.

Continuing Education, Specialty Training & Professional Meeting Attendance

- ARMEDCOM. Apr 2024 Physical Security Training. US Army. Pinellas Park, FL.
- Apr 2024, 2024 AOPA (American Orthotic and Prosthetic Association) Policy Forum. Washington DC.
- Orthotic, Prosthetic & Pedorthic Clinical Services 19th Annual VA Breakout at the American Academy of Orthotists & Prosthetists 50th Annual National Meeting. March 2024. U.S. Department of Veterans Affairs. Chicago, IL.
- American Academy of Orthotists & Prosthetists 50th Annual National Meeting. March 2024. Chicago, IL.
- Jan 2024, 2024 AOPA (American Orthotic and Prosthetic Association) O&P Leadership Conference. Paradigm Shift: Looking Inward to Advance O&P. Austin, TX.
- Sep 2023, AOPA (American Orthotic and Prosthetic Association), National Meeting, Indianapolis, IN.
- American Physical Therapy Association. Combined Sections Meeting. Feb 2023. San Diego, CA.
- Orthotic, Prosthetic & Pedorthic Clinical Services 18th Annual VA Breakout at the American Academy of Orthotists & Prosthetists Annual National Meeting. March 2023. U.S. Department of Veterans Affairs. Nashville, TN.
- US Army Reserves. Combat Simulation Training Exercise. Initial Planning Workshop for Command Teams for Summer Mission AUG2022 “Global Medic”. Oct 2021. Virtual Conference.

- US Department of Veterans Affairs. NCOD. 8hr Servant Leadership Training for VA Leadership Executives. Mar 2021. Virtual Conference.
- APTA. APTA. Combined Sections Mtg. Feb/Mar 2021. Virtual Meeting.
- AAOP. Scientific Symposium/National Mtg. Included VA O&P Breakout Conference. Mar 2020. Chicago, IL.
- AOPA. 2019 Annual Conference (Virtual Presenter). Sept 2019. San Diego, CA.
- ASOC. South East Regional Amputee Rehabilitation Conference. Aug 2019. Orlando, FL.
- AAOP. Scientific Symposium/National Mtg. Mar 2019. Orlando, FL.
- APTA. Combined Sections Mtg. Feb 2019. Washington DC.
- AOPA. 2019 O&P Leadership Conference. Jan 2019. Scottsdale, AZ.
- AOPA. National Assembly. Sept 2018. Vancouver, B.C. Canada.
- Military Health System Research Symposium(MHSRS). Aug 2018. Kissimmee, FL.
- Hanger Education Fair & National Business Meeting. Jan 2018. Las Vegas, NV.
- AAOP. Scientific Symposium/National Mtg. Feb 2018. New Orleans, LA.
- AOPA. Jan 2018. O&P Leadership Conference. Palm Beach, FL.
- Military Health System Research Symposium(MHSRS). Aug 2017. Kissimmee, FL.
- Federal Advanced Amputation Skills Training Conference(FAAST). July 2017. Bethesda, MD. (Uniformed University of the Health Sciences and Walter Reed National Military Medical Center).
- Florida Physical Therapy Association (FPTA) 2016 Annual Conference & Assembly of Representatives. Sept 2016. Orlando, FL.
- American Orthotic and Prosthetic Association (AOPA) National Assembly. Sept 2016. Boston, MA.
- Military Health System Research Symposium(MHSRS). Aug 2016. Kissimmee, FL.
- Federal Advanced Amputation Skills Training Conference(FAAST). July 2016. San Pedro, CA (Fort MacArthur/L.A. Air Force Base).
- Orthotics Prosthetics Canada (OPC). 2016 National Conference. Banff, Alberta. Canada.
- OT World. International Trade Show and World Congress. May 2016. Leipzig, Germany.
- AAOP. Scientific Symposium/National Mtg. Mar 2016. Orlando, FL.
- AOPA. Jan 2016. O&P Leadership Conference. Palm Beach, FL.
- Association of Military Surgeons of the United States (AMSUS). Annual Meeting. Dec 2015. "The New Normal". "Warrior Symposium". San Antonio, TX.
- Military Health System Research Symposium (MHSRS). Aug 2015. San Antonio, TX.
- AOPA. Oct 2015 National Assembly. San Antonio, TX.
- ISPO. World Congress. 2015. Lyon, France.
- VA/DOD 2015 Federal Advanced Amputation Skills Training Conference. Sponsored by: Extremity Trauma & Amputation Center of Excellence (EACE), the VA Amputation System of Care (ASoC) and the Center for the Intrepid (CFI). May 2015. San Antonio, TX.
- AOPA O&P Policy Forum. Mar 2015. Washington D.C.
- IDEO(Intrepid Dynamic Exoskeletal Orthosis) Training. Veterans' Administration. New, York, NY. Mar(17-19) 2015.
- AAOP. Scientific Symposium/National Mtg. Feb 2015. New Orleans, LA.
- AOPA. Jan 2015. O&P Leadership Conference. Palm Beach, FL.
- AOPA. Sept 2014. National Assembly. Las Vegas, NV
- AAOP. Scientific Symposium/National Mtg. Feb/Mar 2014. Chicago, IL.
- Special Operations Medicine Association (SOMA). Tampa Scientific Assembly. Dec 2013. Tampa, FL.
- US SOCOM TALOS Collaboration Event. USF IDRB Building Galleria. Nov 20-22, 2013. Tampa, FL.
- CAREN (Computer Assisted Rehabilitation Environment; Motek Medical, Amsterdam) Certified Operator and D-Flow software training. USF- Robotics Engineering Laboratory. Nov 2013. Tampa, FL
- American Orthotic & Prosthetic Association (AOPA) National Assembly. Joint Meeting with the International Society of Prosthetists & Orthotists (ISPO) 2013 World Congress. Sept 2013. Orlando, FL.
- FCAAOP and FAOP. Scientific Symposium/Annual Mtg. July 2013. Orlando, FL.
- FPTA. West Central District Mtg. Apr 2013. Nova Southeastern University. Tampa, FL
- AAOP. Scientific Symposium/National Mtg. Mar 2013. Orlando, FL.
- ISPO. World Congress. 2013. Hyderabad, India.
- Physical Functional Performance 10 Assessment Training. Dr. Elaine Cress. Tampa, FL.
- 2nd Annual Symposium on Regenerative Rehabilitation. University of Pittsburgh. Nov, 2012. Pittsburgh, PA.

- AAOP. Contemporary Management of the Upper Limb Prosthetic Patient. Oct 2012. Rosemont, IL.
- AAOP. Dermatology and Wound Care for Prosthetists and Orthotists. Oct 2012. Rosemont, IL.
- AOPA. Sept 2012 National Assembly. Boston, MA
- APTA. PT 2012. Tampa, FL
- US SOCOM Care Coalition. SOF Wounded Warrior, Advocacy and Referral Conference. 2012. Macdill AFB. Tampa, FL.
- AAOP. Scientific Symposium/National Mtg. 2012. Atlanta, GA.
- Alaska Mountaineering School. Arctic Wilderness Survival Training Certification (Coffee Glacier). Denali, AK, USA. 2012.
- New Jersey Chapter of the AAOP Annual Mtg. Nov 2011. Atlantic City, NJ.
- ISPO. United Kingdom National Member Society. Annual Scientific Mtg. 2011. London, England.
- Neurocom: Assessment of Balance & Sensory Integration. USF. 2011. Tampa, FL.
- Amputation System of Care (ASoC) Conference: Best Practices in Amputation Care: Implementation, Integration and Collaboration Across the System. July 2011. U.S. Department of Veterans' Affairs. Indianapolis, IN.
- FPTA. West Central District Mtg. 2011. Tampa, FL
- FPTA. Spring Conference. 2011. Orlando, FL.
- AAOP. Scientific Symposium/National Mtg. 2011. Orlando, FL. (Free Paper Session Moderator).
- Hanger Prosthetics and Orthotics Education Fair. 2011. Reno, NV.
- AAOP. Prosthetic & Orthotic Management of the High Activity User. Oct 2010. Chicago, IL.
- VISN8 VA EES. Southeastern Regional Amputation Conference. Sept 2010. Tampa, FL.
- VA-DOD State of the Art (SOTA) Prosthetics & Orthotics Conference. Jan 2010. Washington DC. (Rehab Work Group Session Recorder)
- AAOP. Scientific Symposium/National Mtg. 2010. Chicago, IL. (Free Paper Session Moderator).
- Life Measurement, Inc- BODPOD course. Body composition assessment course. July 2009. Tampa, FL.
- Amputee Sport and Fitness Clinic. July 2009. Ossur Prosthetics. Tampa, FL.
- Amputation System of Care (ASoC) Conference: Teams, Treatment and Technology Conference. June 2009. U.S. Department of Veterans' Affairs. Seattle, WA.
- Veterans' Affairs and Department of Defense Prosthetics and Orthotics State of the Art (SOTA) Conference Planning Committee. June 2009. U.S. Department of Veterans' Affairs and U.S. Department of Defense. Washington, D.C.
- 10th Annual Conference: "Transforming Fall Management Prevention Practices. Platform Presentation. May 2009, USF and James A. Haley VA Hospital VISN 8 Patient Safety Center of Inquiry. Clearwater, FL.
- AAOP. Scientific Symposium/National Mtg. 2009. Atlanta, GA.
- Hanger Prosthetics and Orthotics Education Fair. 2008. Reno, NV.
- VICON online course. Plug In Gait. Body segment definitions and interpretation of results. USF. Tampa, FL. 2008
- NORAXON course. Telemetric and Stationary Electromyography and Electrogoniometry Assessment. USF. Tampa, FL. 2008
- CTSA/ACRT. Clinical Translational Science Awards KL2, K12 & K30 Clinical Research Scholars & Ass'n for Clinical Research Training. Washington, D.C. 2008 Nat'l Annual Meeting.
- AAOP. Scientific Symposium/National Mtg. 2008. Orlando, FL.
- COSMED K4b2 course. Telemetric Cardiovascular Assessment. USF. Tampa, FL. 2007
- FPTA. Westcentral District Mtg. 2007. Tampa, FL
- LAOP. Louisiana O&P Scientific Symposium. 2007. Shreveport, LA
- APTA. PT 2007. Denver, CO
- Ossur. Proprio Foot Course. 2007. Tampa, FL
- LAOP. Louisiana O&P Scientific Symposium. 2006. New Orleans, LA
- Dr. Barbara Gladson. Introduction to Pharmacology for PT's. 2006. Tampa, FL
- AAOP. Current Trends in Pediatric Orthotics. 2006. Rosemont, IL
- AAOP. Prosthetic Foot and Ankle Mechanisms. 2006. Rosemont, IL
- APTA. PT 2006. Orlando, FL
- Orlando Orthopedic Center. Orthopedic Update. 2005. Orlando, FL
- FPTA. Westcentral District Mtg. 2005. Tampa, FL
- AAOP. Scientific Symposium/National Mtg. 2006. Chicago, IL.
- AAOP. Scientific Symposium/National Mtg. 2005. Orlando, FL.
- Westcoast Brace & Limb. Reciprocating Gait Orthosis. 2005. Tampa, FL

- USF. Clinical Educators Certification Course. 2005. Tampa, FL
- Ossur. Rheo Knee Course. 2004. Tampa, FL
- Westcoast Brace & Limb. Comprehensive Management of Osteoporosis. 2004. Tampa, FL
- HCR Manor Care. Dementia Pocket Coach. 2004. Clearwater, FL
- Orlando Orthopedic Center. Cutting Edge Orthopedics and the Athletic Client. 2004. Orlando, FL
- Univ St Aug. Extremity Eval & Manipulation. 2003. St. Aug, FL
- Univ St Aug. Extremity Integration. 2003. St. Aug, FL
- Univ St Aug. Intro to Spinal Eval & Manip. 2003. St. Aug, FL
- Univ St Aug. Advanced Eval & Manip of Pelvic, Lumbar and Thoracic Spine. 2003. St. Aug, FL
- Univ St Aug. Advanced Eval & Manip of Craniofacial Region, Cervical & Upper Thoracic Spine. 2003. St. Aug, FL
- Univ St Aug. Functional Analysis and Management of the Lumbopelvic-Hip Complex. 2003. St. Aug, FL
- Univ St Aug. Myofascial Manipulation. 2003. St. Aug, FL
- Westcoast Brace & Limb. Advanced Gait Training for Transfemoral Amputees. 2003. Tampa, FL

Web Pages: Biographical Sketches, Affiliations and Laboratories

Pubmed/Medline:

[http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=DetailsSearch&term=Highsmith+MJ%5BAuth%5D&log\\$=activity](http://www.ncbi.nlm.nih.gov/sites/entrez?db=pubmed&cmd=DetailsSearch&term=Highsmith+MJ%5BAuth%5D&log$=activity)

USF Biographical Sketch: http://health.usf.edu/medicine/dpt/bio_j_highsmith.htm

USF K30 Scholars Biographical Sketches: <http://health.usf.edu/research/k30/scholars.htm>

USF Center for Rehabilitation Robotics Technologies (CARRT) <http://carrt.eng.usf.edu/Research/Faculty.html>

USF CARRT Homepage: <http://carrt.eng.usf.edu/Research/Labs.html>

USF Motion Analysis Laboratory: http://oandp.health.usf.edu/motion_lab.html

USF Human Functional Performance Laboratory: http://oandp.health.usf.edu/human_lab.html

USF Prosthetics and Orthotics Demonstration Project Website: <http://oandp.health.usf.edu/index.html>

James A. Haley VA Patient Safety Center of Inquiry:

<http://www1.va.gov/visn8/patientsafetycenter/overview/staff.asp>