

CURRICULUM VITAE

Michael J. Mueller, P.T., Ph.D., F.A.P.T.A.

Date: July, 2019

Citizenship: USA

Address and Telephone Numbers:

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Present Position: Professor, Program in Physical Therapy & Department of Radiology

Education: Vanderbilt University
Nashville, TN
1975 - 1977

Washington University
St. Louis, MO
Bachelor of Science in Physical Therapy, 1979

Washington University, University College
St. Louis, MO
Master of Health Science Degree in Physical Therapy, 1984

Washington University School of Medicine
St. Louis, MO
Ph.D., Interdisciplinary Program in Movement Science, 1992

Professional Experience and Academic Positions:

Staff Physical Therapist & Prosthetic/Orthotic Clinical Coordinator
Sacred Heart Rehabilitation Hospital; Milwaukee, WI; 1979 - 1981

Senior Staff Physical Therapist in Adult Rehabilitation
Irene Walter Johnson Institute of Rehabilitation
Washington University School of Medicine, St. Louis, MO; 1981 - July 1984

Director of Physical Therapy
Irene Walter Johnson Institute of Rehabilitation

Washington University School of Medicine, St. Louis, MO; July 1984 - June 1987

Instructor: 1982 - 1992

Assistant Professor: 1993 - 1998

Associate Professor: 1999 – 2008

Professor: July 2008 – present; Program in Physical Therapy & Department of Radiology; Washington University School of Medicine, St. Louis, MO

Director, Applied Biomechanics Laboratory: 2000 – 2015

Associate Director, Movement Science Program: 2004 - 2012

Division Director, Research: 2003 - 2018

Appointments and Committees:

Program in Physical Therapy, Washington University

Alumni Awards Committee: 1993 - 1996, Member; 1990 - 1993, Chairman

Rose Research Award: 1996 – Present

Research Advisory Committee, Chair, 2003-present

Faculty Search Committee, Chair, 2012

Medical School

K12 Multidisciplinary Clinical Research Career Development Program

Recruiting and Selection Committee: 2005-2012

Multidisciplinary Advisory Committee: 2005-2012

Tenure & Promotion Committee, Program in Occupational Therapy: 2004-2014

Distinguished Investigator Award Selection Committee, 2007

Steering Committee for Movement Science Program; 2004-present

Grant Review Committees:

National Institutes of Health

Geriatrics and Rehabilitative Medicine Study Section 11/1998

Musculoskeletal Rehabilitation Sciences 10/2003, 11/2004

Musculoskeletal Rehabilitation Sciences 11/2005

Musculoskeletal Rehabilitation Sciences 11/2006

T32 and K99 proposals, NICHD, 12/2007

Challenge Grants, Stimulus Package, 6/2009

Musculoskeletal, Oral and Skin, 6/2010

Musculoskeletal Rehabilitation Sciences 6/2012

Fellowship: Physiology & pathophysiology of Musculoskeletal, Oral & Skin systems 11/2014

Loan Repayment Program, NICHD, April 2017; March 2018; March 2019

Foundation for Physical Therapy, Scientific Review Committee 1/1998 - 2000

Chairman, Research Award Review Committee 3/1999 – 2000

Licensure Information/Registration Number: Missouri #01013

Honors & Awards: Jack Walker Award (Most Outstanding Contribution to Clinical Practice), Co-Author American Physical Therapy Association, 1988

Faculty Speaker, Commencement, Program in Physical Therapy,

Washington University School of Medicine, 1989, 1990, 1992, 2000

Foundation for Physical Therapy Doctoral Award, Interdisciplinary Program in Movement Science, (\$11,800), 1991 - 1992

Eugene Michels New Investigator Award
American Physical Therapy Association, 1995

Alumni Award, Program in Physical Therapy
Washington University School of Medicine, 1996

Novel Award, Best Scientific Paper in the Field of Pressure Distribution, 3rd, 5th EMED Scientific Meeting, Pennsylvania State University, 1996

Chattanooga Research Award (Best Clinical Research Article Published in Physical Therapy), American Physical Therapy Association, 2000

Marian Williams Award (For Fundamental and Significant Contributions to the Development of the Profession of Physical Therapy through Research), American Physical Therapy Association, 2001

Roger Mann MD Award (to Jeffrey Johnson MD), First-author on Most Outstanding Clinical Paper Presented at the American Orthopaedic Foot & Ankle Society Meeting, July 2002

Novel Award (to Katrina Maluf), Co-author on Best Scientific Paper in the Field of Pressure Distribution, 1st, VIII EMED Scientific Meeting, Kananaskis, Canada, (\$10,000) August 2002

Catherine Worthingham Fellow of the American Physical Therapy Association, for “Lasting and significant advances in the science, education, and practice of the profession of physical therapy.” March 2004

Roger E. Pecoraro Lectureship, Awarded Sept 2005 from the American Diabetes Association, Foot Council, for “Outstanding Contribution to the Knowledge and Treatment of the Diabetic Foot”. Lecture given at ADA 66th Scientific Sessions, Washington DC, June 2006

Chattanooga Research Award (Best Clinical Research Article Published in *Physical Therapy*), American Physical Therapy Association, 2007

Jules M. Rothstein Golden Pen Award for Scientific Writing, American Physical Therapy Association, 2007

John P. Maley Award for outstanding leadership in research over a sustained period of time, Section on Research, American Physical Therapy Association, 2013

Career Excellence Award in Biomechanics Research, Biomechanics Special Interest Group of the Section on Research, American Physical Therapy Association, 2018

Jack Walker Award, June 2018, American Physical Therapy Association. (Most Outstanding Contribution to Clinical Practice) for, Kluding PM, Bareiss SK, Hastings MK, Marcus R, Sinacore DR, Mueller MJ. Physical Training and Activity in People with Diabetic Peripheral Neuropathy: A Paradigm Shift. *Physical Therapy*, 97:31-43, 2017. PMID: 27445060. DOI: 10.2522/ptj.20160124

Editorial Responsibilities:

PHYSICAL THERAPY Journal
Editorial Board Member, Editor for Updates, 1995 - 2006
Reviewer, 1982 – Present
Guest Editor for Special Issue on Diabetes, November 2008
Contributing Editor, 2015- Present

CLINICAL REHABILITATION

Editorial Board Member, 1995 - 2001
JOURNAL of ORTHOPAEDIC & SPORTS PHYSICAL THERAPY
Reviewer, 1993 - Present
DIABETES CARE Reviewer, 1998 – Present
JOURNAL of REHABILITATION RESEARCH & DEVELOPMENT, 2004-2015
CLINICAL BIOMECHANICS, 2003- Present
ARCHIVES OF PHYSICAL MEDICINE AND REHABILITATION, 2000 - present

Scientific/Professional Organizations/Societies:

American Physical Therapy Association, 1979 - Present
Research Section, 1984 - Present
Orthopaedic Section, 1993 - Present
American Diabetes Association, 1987 – Present
Foot Exam Expert Panel Member – 2008
Foundation for Physical Therapy
Board of Trustees, January 2010-December 2018
Vice President and Chair of Scientific Committee, 2014-2018

Research Support:

Total Contact Casting for the Treatment of Neuropathic Plantar Ulcers,
Foundation for Physical Therapy Research
Principal Investigator, \$14,470, 1987

Doctoral Training in Movement Science
National Center for Medical Rehabilitation Research, NIH (5 T32 HD07434-12)
Preceptor, \$125,828, 1992 - 1996, 1996 - 1999, 1999-2004

Conservative Management of the Diabetic Foot
Missouri Chapter of the American Physical Therapy Association
Co-investigator, \$3,000, 1994

Footwear for Patients with Transmetatarsal Amputation
National Center for Medical Rehabilitation Research, NIH (RO1 HD 31486-01)
Principal Investigator, \$224,000, 1994 – 1996

Achilles Lengthening Procedure for Patients with Diabetes
Diabetes Research Training Center, Washington University School of Medicine,
Co-Investigator, \$24,000, 12/1/1997 - 5/18/1998

In-shoe Multisensory Data Acquisition and Analysis
National Center for Medical Rehabilitation Research, NIH (RO1 HD36576-01)
Principal Investigator, \$231,064, 2/1/1998 - 1/31/2001

Footwear Evaluation: Payless Shoe Source, Inc
Principal Investigator
\$38,500, 2/1/1998 - 1/30/2000
\$35,600, 2/1/2000 - 1/30/2001

Achilles Lengthening Procedure for Patients with Diabetes
National Center for Medical Rehabilitation Research, NIH (RO1 HD36802)
Principal Investigator, \$756,563, 8/19/1998 - 5/31/2003

Visualizing Diabetic Feet to Optimize Orthotic Fitting
National Center for Medical Rehabilitation Research, NIH (RO1 HD36895)
Principal Investigator, \$995,840, 12/1/1998 - 11/30/2002
Principal Investigator, \$1,828,203, 12/26/2002 – 11/30/2006 (NCE 11/30/2008) (2
RO1 HDO36895-04A1)

Optimal Off-Loading Therapy for Healing Diabetic Ulcers
NIH/NIDDK (RO1 DK59224) – PI: Sinacore
Co-Investigator, \$894,000, 4/01/2001-3/31/2005

Multi-Sensory Shoe with Wireless Feedback – PI: Klaesner
NIH/NCMRR (1 R43 HD044426-01)
Co-Investigator, \$100,000, 2003

Clinical Step Counter – PI: Klaesner
NIH/NCMRR (1 R43 DK063768-01)
Co-investigator, \$100,000, 2003-2004
Phase II, \$189,000, 9/01/06-08/30/08

Botulinum Toxin's effects on plantar ulcer recurrence – PI: Hastings
NIH/NICHHD (R21 HD048972)
Co-investigator, \$150,000, 12/01/04 – 11/30/08

National Center for Skeletal Muscle Rehabilitation Research
NIH/NICHHD/NCMRR, 5-R24HD650837 RL Lieber (PI)
Role: Visiting Scholar; \$15,000; 7/30/07-8/31/09
Dr. Mueller received funding for visits to Dr. Lieber's lab to learn better how to
apply MRI methods to neuropathic muscle.

Doctoral Training Program in Movement Science
NIH/NCMRR (T32 HD007434-13)
Principal Investigator, \$140,116 / year, 05/01/2005-04/30/10

Doctoral Training Program in Movement Science
NIH/NCMRR (T32 HD007434-18A1)
Principal Investigator, \$151,408 / year, 05/01/2011-04/30/13

Multicenter Career Development Program for Physical and Occupational Therapy
NIH/NCMRR (K12 HD055931)
Principal Investigator \$4,643,000, \$4,700,000, \$3,861,000; 8/15/07- 8/31/22

Effects of Weight Bearing Exercise on People with Diabetes and Peripheral Neuropathy
NIH/NCMRR (1 R21 HD058938-01)
Principal Investigator \$500,000, 5/12/09-4/30/13
Administrative Supplement Award, NIH/NCMRR (1 R21 HD058938-01A1S1)
Principal Investigator \$150,000, 9/30/09-4/30/13

Characterization of Microcirculatory Function in Diabetic Leg and Foot with MRI
NIH/NIAMS (1R21AR065672 - 01A1)
Co-Investigator (PI Zheng, Jie), \$431,000, 8/1/2014-7/31/16

Diabetic Upper Extremity Pathophysiology, Limited Joint Mobility and Disability
NIDDK (1 R21 DK100793-01)
Principal Investigator (Mueller) \$419,375, 9/1/14-8/31/17,

Muscle, Joint, and Movement Deterioration Contributing to Neuropathic Forefoot
Deformity
NIDDK (RO1DK107809-01)
Co-Investigator (PI Hastings) \$343,125 3/1/2016-2/28/2021

Microcirculatory Function in Diabetic Foot Muscles with MRI
NIDDK (R01 DK105322)
Co-Investigator (PIs Zheng and Hastings) \$568,880 3/1/2016-12/31/2019

Balance Plus Insole Testing – Private Industry Contract,
Principal Investigator (Mueller) \$19,100; 2017-2018

Patents: Multi-plug design shoe insole. Mueller MJ et al, International Publication Number WO
2009/026492 A1; Feb 26, 2009

Clinical Title and Responsibilities: Physical Therapist

Current Graduate School Teaching Responsibilities:

Program in Physical therapy – DPT Program

Kinesiology I (606): Gait and Foot / ankle units
Kinesiology II (616); Gait unit
Professional Issues & Skill Development III (635) Negotiation Lab
Diagnosis and Management of General Medical Conditions (636): Prosthetics Unit
Diagnosis & Management of Musculoskeletal Conditions III (639) Lab assistant
Case Integration III (693) Mentor
Diagnosis & Evidence Analysis in PT Practice III (650) Mentor

Movement Science Program – Graduate School of Arts and Sciences

Independent Study (PT 568, IPMS 5710); Mentor for research projects
Independent Readings (IPMS 5750); Statics, Dynamics, Deformable Bodies
Biomechanics (IPMS 5510)
Advanced Biomechanics, Kinematics (IPMS 5810)
Laboratory Practicum I and II (IPMS 5520-30); Mentor

Tissue Mechanics, Theory (PT 22 620);

Student Advisement:

Master's Degree Committee Chair, Jay Diamond. Reliability of a diabetic foot evaluation. 1989

Master's Degree Committee Chair, Laurie Kroupa. Visual assessment of foot type and relationship of foot type to lower extremity injury. 1991

Doctoral Committee Member, Amy Bastian. Contrasting motor deficits from damage to medial and lateral cerebellar zones. 1995

Primary Advisor; Gretchen Salsich. Interdisciplinary Doctoral Program in Movement Science, Graduation 1998.

Primary Advisor; Katrina Maluf. Interdisciplinary Doctoral Program in Movement Science, Graduation 2002

Primary Advisor; Cara Lewis, Interdisciplinary Doctoral Program in Movement Science, 2000-2002; Advisor 2002-2005

Doctoral Committee Member, Gammon Marie Earhart, 2000; Kathleen M. Zackowski. 2000; Valerie Kelly, 2003; Susanne Morton, 2003; Timothy Meyer 2004; Cara Lewis 2005; Joanne Wagner 2006; Sara Gombatto 2007; Jason Wingert 2007; Ryan Mizner (University of Delaware); Inbal Gurari 2008; Justin Beebe 2008; Madeleine Hackney 2009; Sara Scholtes 2009; Dustin Hardwick 2010; Mike Falvo 2010; Elena Stepanova 2010; Stacey DeJong 2011; Corey Lohnes 2012; David Gutekunst, 2012; Dan Peterson 2013; Deborah Michael Wendland (Ga Tech), 2013; Ericka Merriwether 2014; Rebecca Nolan (University of South Australia) 2014; Kerri Morgan 2015; Chris Sorensen 2015; Rachel Tinius 2015; Sam Nemanich, 2016; Matthew Hale Foreman (Program in Rehabilitation and Participation Science) 2017; Andrej Marich 2017; CT Hwang 2018, Dan Bittel 2018

Primary Advisor; Donovan Lott. Interdisciplinary Doctoral Program in Movement Science, Graduation 5/2007

Primary Advisor; Lori Tuttle graduated May 2011 in Movement Science Program

Primary Advisor; Kshamata Shah in Movement Science Program, graduated May 2014

Primary Advisor; Victor Cheuy in Movement Science Program, 2011-2015

Co-mentor; Hyo-Jung Jeong in Movement Science Program, 2016-

Co-mentor; Stefanie Foster in Movement Science Program, 2016-

Peer Reviewed Publications:

- 1) Mueller MJ. Comparison of Removable Rigid Dressing and Elastic Bandages in Pre-Prosthetic Management of Patients with Below Knee Amputation. *Physical Therapy*. 1982;62:1438-1441.
- 2) Mueller MJ, Delitto A. Selective Criteria for Successful Long Term Prosthetic Use. *Physical Therapy*. 1985;65:1037-1040.
- 3) Garrison JH, Mueller MJ, Shankara BC. Stroke Hemiplegia and Side of Subsequent Lower Extremity Amputation: Which Side is at Risk? *Archives of Physical Medicine and Rehabilitation*. 1986;67:187-189.
- 4) Mueller MJ, Rose SJ. Physical Therapy Director as the Professional Value Setter. *Physical Therapy*.

1987;67:1389-1392.

- 5) Diamond JE, Sinacore DR, Mueller MJ. Molded Double Rocker Plaster Shoe for Healing a Diabetic Neuropathic Plantar Ulcer: A Case Report. *Physical Therapy*. 1987;67:1550-1552.
- 6) Sinacore, DR, Mueller, MJ, Diamond JE, et al. Diabetic Plantar Ulcers Treated by Total Contact Casting. *Physical Therapy*. 1987;67:1543-1549. (Jack Walker Award, 1988).
- 7) Mueller MJ, Diamond JE. Biomechanical treatment approach for diabetic plantar ulcers. *Physical Therapy*. 1988;68:1917-1920.
- 8) Mueller MJ, Diamond JE, Delitto A, Sinacore DR. Insensitivity, Limited Joint Mobility, and Plantar Ulcers in Patients with Diabetes Mellitus. *Physical Therapy*. 1989;69:453-462.
- 9) Mueller MJ, Diamond JE, Sinacore DR, Delitto A, Blair VP, Drury DA, Rose SJ. Total Contact Casting in the Treatment of Diabetic Plantar Ulcers: A Controlled Clinical Trial. *Diabetes Care*. 1989;12:304-388.
- 10) Diamond JE, Mueller MJ, Delitto A, Sinacore DR, Rose SJ. Reliability of a Diabetic Foot Evaluation. *Physical Therapy*. 1989;69:797-802.
- 11) Mueller MJ, Minor SD, Diamond JE, Blair VP. Relationship Between Foot Deformity and Location of Ulcer in Patients with Diabetes Mellitus. *Physical Therapy*. 1990;70:356-362.
- 12) Dahle LK, Mueller MJ, Delitto A, Diamond JE. Visual Assessment of Foot Type and Relationship of Foot Type to Lower Extremity Injury. *Journal of Orthopaedic and Sports Physical Therapy*. 1991;14:70-74.
- 13) Mueller MJ, Norton BJ. Reliability of Equipment to Measure Kinematics of Rearfoot Motion: A Technical Report. *Physical Therapy*. 1992;72:731-737.
- 14) Mueller MJ. Etiology, Evaluation, and Treatment of the Neuropathic Foot. *Critical Reviews in Physical and Rehabilitative Medicine*. 1992;3:289-309.
- 15) Mueller MJ, Host JV, Norton BJ. Navicular Drop as a Composite Measure of Excessive Pronation. *Journal of the American Podiatric Medical Association*. 1993;83:198-202.
- 16) Diamond JE, Mueller MJ, Delitto A. Effect of Total Contact Cast Immobilization of Subtalar and Talocrural Joint Motion in Patients with Diabetes Mellitus. *Physical Therapy*. 1993;73:310-5.
- 17) Mueller MJ, Minor SD, Sahrman SA, Schaaf JA, Strube MJ. Differences in the Gait Characteristics of Patients with Diabetes and Peripheral Neuropathy Compared with Age-Matched Controls. *Physical Therapy*. 1994;74:299-313.
- 18) Cibulka MT, Sinacore DR, Mueller MJ. Shin splints and forefoot contact running. *Journal of Orthopaedic and Sports Physical Therapy*. 1994;20:98-102.

- 19) Mueller MJ, Sinacore DR. Rehabilitation Following Transmetatarsal Amputation: A Clinical Perspective. *Physical Therapy*. 1994;74:1027-1033.
- 20) Mueller MJ, Sinacore DR, Hoogstrate S, Daly L. Hip and Ankle Walking Strategies: Effect on Peak Pressures and Implications for Neuropathic Ulceration. *Archives of Physical Medicine and Rehabilitation*. 1994;75:1196-1200.
- 21) Mueller MJ, Allen BT, Sinacore DR. Incidence of Skin Breakdown and Higher Amputation Following Transmetatarsal Amputation: Implications for Rehabilitation. *Archives Physical Medicine and Rehabilitation*. 1995;76:50-54.
- 22) Mueller MJ. Use of In Shoe Pressure System in Management of Patients with Metatarsalgia or Neuropathic Ulcer. *Journal Orthopedic Sports and Physical Therapy*. 1995;21:328-336.
- 23) Mueller MJ, Minor SD, Schaaf JA, Strube MJ, Sahrman SA. Relationship of Plantar Flexor Peak Torque and Dorsiflexion Range of Motion to Kinetic Variables During Walking. *Physical Therapy*. 1995;75:684-693.
- 24) Mueller MJ. Identifying Patients with Diabetes Mellitus Who are at Risk for Lower Extremity Complications: Use of Semmes-Weinstein Monofilaments. *Physical Therapy*. 1996;76:68-71.
- 25) Mueller MJ, Strube MJ. Generalizability of In-Shoe Peak Pressure Measures Using the F-Scan System. *Clinical Biomechanics*. 1996;11:159-164.
- 26) Salsich GB, Mueller MJ. Relationships Between Measures of Function, Strength, and Walking Speed in Patients with Diabetes and Transmetatarsal Amputation. *Clinical Rehabilitation*. 1997;11:60-67.
- 27) Mueller MJ, Strube MJ, Allen BT. Therapeutic Footwear Can Reduce Plantar Pressures in Patients with Diabetes and Transmetatarsal Amputation. *Diabetes Care*. 1997;20:637-641.
- 28) Mueller MJ. Therapeutic Footwear Helps Protect the Diabetic Foot. *Journal Of The American Podiatric Medical Association*. 1997;87:360-364.
- 29) Mueller MJ, Salsich GB, Strube MJ. Functional Limitations in Patients with Diabetes and Transmetatarsal Amputation. *Physical Therapy*. 1997;77:937-943.
- 30) Mueller MJ, Strube MJ. Therapeutic Footwear: Enhanced Function in People with Diabetes and Transmetatarsal Amputation. *Archives of Physical Medicine and Rehabilitation*. 1997;78:952-956.
- 31) Mueller MJ, Salsich GB, Bastian AJ. Differences in Gait Characteristics of People with Diabetes and Transmetatarsal Amputation Compared to Age-Matched Controls. *Gait & Posture*. 1998;7:200-206.
- 32) Brown HE, Mueller MJ. A Step-to Gait Decreases Pressures on the Forefoot. *Journal Orthopedic Sports and Physical Therapy*. 1998;28:139-145.
- 33) Mueller MJ, Smith KE, Commean PK, Robertson DD, Johnson JE. Use of Spiral X-Ray Computed Tomography and Plantar Pressures for Management of Neuropathic Ulcers in Patients with Diabetes.

- Physical Therapy*. 1999;79:296-307.
- 34) Mueller MJ. Application of Plantar Pressure Assessment in Shoe Design. *Journal Orthopaedic Sports & Physical Therapy*. 1999;29:747-755.
 - 35) Smith KE, Commean PK, Mueller MJ, Robertson DD, Pilgram T, Johnson JE. Assessment of the Diabetic Foot Using Spiral Computed Tomography Imaging and Plantar Pressure Measurements. *Journal of Rehabilitation Research and Development*. 2000;37:31-40.
 - 36) Hastings MK, Mueller MJ, Sinacore DR, Salsich GB, Johnson JE, Engsborg JR. Effects of a Tendo-Achilles Lengthening Procedure on Muscle Function and Gait Characteristics in a Patient with Diabetes Mellitus. *Journal Orthopedic Sports and Physical Therapy*. 2000;30:85-90.
 - 37) Salsich GB, Mueller MJ, Brown MB. Relationships Between Plantar Flexor Muscle Stiffness, Plantar Flexor Muscle Strength, and Dorsiflexion Range of Motion. *Journal Orthopedic Sports & Physical Therapy*. 2000;30:473-483.
 - 38) Kelly VE, Mueller MJ, Sinacore DR. Timing of Peak Plantar Pressure During the Stance Phase of Walking; A Study of Patients with Diabetes and Transmetatarsal Amputation. *Journal of the American Podiatric Medical Association*. 2000;90:18-23.
 - 39) Salsich GB, Mueller MJ, Sahrman SA. Passive Ankle Stiffness in Subjects with Diabetes and Peripheral Neuropathy Compared to Age-Matched Control Subjects. *Physical Therapy*. 2000;80:352-362.
 - 40) Salsich GB, Mueller MJ. Effect of Plantar Flexor Muscle Stiffness on Selected Gait Characteristics. *Gait & Posture*. 2000;11:207-216.
 - 41) Sinacore DR, Mueller MJ. Pedal Ulcers in Older Adults with Diabetes Mellitus. *Topics In Geriatric Rehabilitation*. 2000;16:11-23.
 - 42) Kwon, Oh-Yun, Mueller MJ. Walking patterns used to reduce forefoot plantar pressures in people with diabetic neuropathies. *Physical Therapy*. 2001;81:828-835.
 - 43) Maluf KS, Morley RE, Richter EJ, Klaesner JW, Mueller MJ. Monitoring in-shoe plantar pressures, temperature, and humidity: reliability and validity of measures from a portable device. *Archives of Physical Medicine And Rehabilitation*. 2001;82:1119-27.
 - 44) Smith KE, Commean PK, Pilgram T, Robertson DD, Mueller MJ. Precision and Accuracy of Computed Tomography Foot Measurements. *Archives of Physical Medicine And Rehabilitation*. 2001;82:925-929.
 - 45) Morley RE, Richter EJ, Klaesner JW, Maluf K, Mueller MJ. In-Shoe Multisensory Data Acquisition System. *IEEE Transactions In Biomedical Engineering*. 2001;48:815-820.
 - 46) Klaesner JW, Commean PK, Hastings MK, Zou D, Mueller MJ. Accuracy and Reliability Testing of a Portable Soft Tissue Indentor. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*. 2001;9(2):232-240.

- 47) Robertson DD, Mueller MJ, Smith KE, Commean PK, Pilgram T, Johnson J. Structural Changes in the Forefoot of Individuals with Diabetes and a Prior Plantar Ulcer. *Journal Bone Joint Surgery (Am)*. 2002;84:1395-1404.
- 48) Klaesner JW, Hastings MK, Zou D, Lewis C, Mueller MJ. Plantar tissue stiffness in patients with diabetes mellitus and peripheral neuropathy. *Archives of Physical Medicine and Rehabilitation*. 2002;83:1796-1801.
- 49) Commean PK, Mueller MJ, Smith KE, Hastings M, Klaesner J, Pilgram T, Robertson DD. Reliability and validity for combined imaging and pressure assessment methods for diabetic feet. *Archives of Physical Medicine And Rehabilitation*. 2002;83(4):497-505.
- 50) Mueller MJ, Maluf KS. Tissue Adaptation to Physical Stress: A Proposed “Physical Stress” Theory to Guide Physical Therapy Practice, Education, and Rehabilitation Research. *Physical Therapy*. 2002;82:383-403.
- 51) Mueller MJ, Sinacore DR, Hastings MK, Strube MJ, Johnson JE. Effect of Achilles Tendon Lengthening on Neuropathic Plantar Ulcers: A Randomized Trial. *Journal of Bone and Joint Surgery*. 2003;85-A(8):1436-1445.
- 52) Kwon OY, Minor SD, Maluf KS, Mueller MJ. Comparison of muscle activity during walking in subjects with and without diabetic neuropathy. *Gait & Posture*. 2003;18:105-113.
- 53) Mueller MJ, Hastings M, Commean PK, Smith KE, Pilgram TK, Robertson D, Johnson JE. Forefoot structural predictors of plantar pressures during walking in people with diabetes and peripheral neuropathy. *Journal of Biomechanics*. 2003;36:1009-1017.
- 54) Maluf KS, Mueller MJ. Comparison of physical activity and cumulative plantar tissue stress among subjects with and without Diabetes Mellitus and a history of recurrent plantar ulcers. *Clinical Biomechanics*. 2003;18:567-575. (Won Novel Award, 2002).
- 55) Hastings MK, Commean PK, Smith KE, Pilgram TK, Mueller MJ. Aligning anatomical structure from spiral x-ray computed tomography with plantar pressure data. *Clinical Biomechanics*. 2003;18:877-882.
- 56) Maluf KS, Morley RE, Richter EJ, Klaesner JW, Mueller MJ. Foot pressures during level walking are strongly associated with pressures during other ambulatory activities in subjects with diabetic neuropathy. *Archives of Physical Medicine and Rehabilitation*. 2004;85:253-260.
- 57) Maluf KS, Mueller MJ, Strube MJ, Engsberg JR, Johnson JE. Tendon Achilles lengthening for the treatment of neuropathic ulcers causes a temporary reduction in forefoot pressures associated with changes in plantar flexor power rather than ankle motion during gait. *Journal of Biomechanics*. 2004;37:897-906.
- 58) Mueller MJ, Sinacore DR, Hastings MK, Lott DJ, Strube MJ, Johnson JE. Impact of Achilles tendon lengthening on functional limitations and perceived disability in people with a neuropathic plantar ulcer. *Diabetes Care*. 2004;27:1559-1564.

- 59) Salsich GB, Mueller MJ, Hastings MK, Sinacore DR, Strube MJ, Johnson JE. Effect of Achilles Tendon Lengthening on ankle muscle performance in people with diabetes and a neuropathic plantar ulcer. *Physical Therapy*. 2005;85:34-43.
- 60) Lott DJ, Maluf KS, Sinacore DR, Mueller MJ. Relationship Between Changes in Activity and Plantar Ulcer Recurrence in a Patient With Diabetes Mellitus. *Physical Therapy*. 2005;85:579-588.
- 61) Mercer Bolton NR, Smith KE, Pilgram TK, Mueller MJ, Bae KT. Computed tomography to visualize and quantify the plantar aponeurosis and flexor hallucis longus tendon in the diabetic foot. *Clinical Biomechanics*. 2005;20:540-546.
- 62) Mueller MJ, Zou D, Lott DJ. "Pressure Gradient" as an indicator of plantar skin injury. *Diabetes Care*. 2005;28:2908-2912.
- 63) Mueller MJ, Lott DJ, Hasting MK, Commean P, Smith K, Pilgram T. Efficacy and mechanism of orthotic devices to unload metatarsals heads in people with diabetes and history of plantar ulcer. *Physical Therapy*. 2006;86:833-842. (Won the Chattanooga Research Award)
- 64) Actis, RL, Ventura LB, Smith KE, Commean PK, Lott DJ, Pilgram TK, Mueller MJ. Numerical simulation of the plantar pressure distribution in the diabetic foot during the push-off stance. *Medical & Biological Engineering & Computing*. 2006;44:653-663.
- 65) Hastings M, Mueller MJ, Pilgram TK, Lott DJ, Commean PK, Johnson JE. Effect of metatarsal pad placement on plantar pressure in people with diabetes and peripheral neuropathy. *Foot & Ankle International*. 2007; 28:84-88.
- 66) Zou D, Mueller MJ, Lott, DJ. Effect of peak pressure and pressure gradient on subsurface shear stresses in the neuropathic foot. *J of Biomechanics*. 2007;40:883-890
- 67) Lott DJ, Hastings M, Commean P, Smith S, Mueller MJ. Effect of Footwear and Orthotic Devices on Stress Reduction and Soft Tissue Strain of the Neuropathic Foot. *Clinical Biomechanics*. 2007;22:352-359. PMID: PMC1847616
- 68) Lott DJ, Zou D, Mueller MJ. Pressure Gradient and Subsurface Shear Stress on the Neuropathic Forefoot. *Clinical Biomechanics*. 2008; 23:342-348. PMID: PMC2387244
- 69) Garcia CA, Goebel SL, Hastings MK, Klaesner JW, Mueller MJ. Effect of metatarsal phalangeal joint extension on plantar soft tissue stiffness and thickness. *The Foot*. 2008; 18:61-67. PMID: PMC2607031
- 70) Actis RL, Ventura LB, Lott DJ, Smith KE, Commean PK, Hastings MK, Mueller MJ. Multi-plug insole design to reduce peak plantar pressure on the diabetic foot during walking. *Medical & Biological Engineering & Computing*. 2008; Apr;46(4):363-71. PMID: PMC2650823
- 71) Hilton TN, Tuttle LJ, Bohnert KL, Mueller MJ, Sinacore DR. Excessive adipose tissue infiltrate in skeletal muscle in individuals with obesity, diabetes mellitus and peripheral neuropathy: Association with performance and function. *Physical Therapy*; 2008; 88 1335-1344. PMID: PMC2579904

- 72) Mueller MJ, Zou D, Bohnert KL, Tuttle LJ, Sinacore DR. Plantar Stresses on the Neuropathic Foot during Barefoot Walking. *Physical Therapy*; 2008; 88:1375-1384. PMID: PMC2579907
- 73) LeMaster J, Mueller MJ, Reiber GE, Mehr DR, Madsen RW, Conn VS. Effect of Weight Bearing Activity on Foot Ulcer Incidence in People with Diabetic Peripheral Neuropathy: The Feet First Randomized Controlled Trial. *Physical Therapy*; 2008; 88:1385-1398. PMID: PMC3637853
- 74) Commean PK, Ju T, Liu L, Sinacore DR, Hastings MK, Mueller MJ. Tarsal and metatarsal bone mineral density measurement using volumetric quantitative computed tomography. *Journal of Digital Imaging*. 2009;22:492. PMID: PMC2745489
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- 114b) Podcast - Shoulder Movement Intervention in People With Diabetes: An Interview by PTJ editor Allan Jette With Dr. Michael Mueller. Published: November 7, 2018
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Book Chapters and Invited Publications:

Mueller MJ. Wound Care in the Elderly Patient with Diabetes. In: Protas B (ed). *Twenty-First Century Healing: Geriatric Care*. Professional Health Educators, Inc. St. Petersburg, FL: 1993.

Sinacore DR, Mueller MJ. Total Contact Casting in the Treatment of Neuropathic Ulcers. Ch 13. In: Levin ME, O'Neal LW, Bowker J (eds). *The Diabetic Foot*. 5th ed. C.V. Mosby, St. Louis, MO: 1993.

Mueller MJ. Management of Foot Problems Resulting from Complications of Diabetes or Arthritic Conditions. In: Beattie P (Ed). *Home Study Course for the Foot and Ankle*. Orthopaedic Section, APTA, Inc. La Crosse, WI: 1995.

Diamond JE, Mueller MJ, Sinacore DR. Case Studies of the Foot and Ankle. In: Hunt GC, McPoil TG, (eds). *Physical Therapy of the Foot and Ankle*. 2nd ed. Churchill Livingstone, New York, NY: 1995.

Sinacore DR, Mueller MJ. Total Contact Casting for Wound Management. In: P. Gogia (ed). *Clinical Wound Management*. Thorofare, NJ:Slack; 1995.

Mueller MJ. A Refresher Course for Treating People with Drop Foot. *Advance for Directors in Rehabilitation*. 1995;4:41-42.

Mueller MJ. Using Appropriate Footwear with Transmetatarsal Amputations. *Biomechanics*. 1996;3:71-74.

Sinacore DR, Mueller MJ. Neuropathic Plantar Ulcers in patients with Diabetes Mellitus. *Physical Therapy*. 1998;6:58-66.

Mueller MJ. Off-loading Techniques for Neuropathic Plantar Wounds. *Advances in Wound Care*. 1999;12:270-271.

Mueller MJ. The Publication Process for Peer-Reviewed Journals. *Gerinotes*. 2000;7:20-23.

Sinacore DR, Mueller MJ. Total Contact Casting in the Treatment of Neuropathic Ulcers. Ch 13. In: Bowker JH & Pfeifer MA (eds). *Levin and O'Neal's The Diabetic Foot*. 6th ed. C.V. Mosby, St. Louis, MO: 2001.

Mueller MJ, Johnson JE. Focus Diabetes: Plantar Ulcers Respond to Achilles Lengthening. *Biomechanics*. 2004;XI:35-41.

Sinacore DR, Mueller MJ. Off-Loading for Diabetic Foot Disease. Ch 13. In: Bowker JH & Pfeifer MA (eds). *Levin and O'Neal's The Diabetic Foot*. 7th ed. Mosby, Elsevier, Philadelphia, PA, 2008.

Boulton AJM, Armstrong DG, Albert SF, Frykberg RG, Hellman R, Kirkman MS, Lavery LA, LeMaster JW, Mills JL, Mueller MJ, Sheehan P, Wukich DK. Comprehensive Foot Examination and Risk Assessment. A report on the task force of the foot care interest group of the American Diabetes Association, with endorsement by the American Association of Clinical Endocrinologists. *Diabetes Care* 2008; 31: 1679-1685; and Reprinted in *Physical Therapy*; 2008; 88 1436-1443.

Editorial. People with Diabetes: A Population Desperate for Movement. Mueller MJ. *Physical Therapy*. 2008;88:1250-1253

Invited Commentaries:

Mueller MJ. Commentary on: Effects of Three Different Posting Methods on Controlling Abnormal Subtalar Pronation. *Physical Therapy*. 1994;74:158-159.

Mueller MJ. Conference on: The Influence of Lower Extremity Muscle Force on Gait Characteristics in Individuals with Below-Knee Amputations Secondary to Vascular Disease. *Physical Therapy*. 1996;76:378-385.

Mueller MJ. Commentary on: The Effects of Exercise on Walking Distance of Patients with Intermittent Claudication. A Study of Randomized Clinical Trials. *Physical Therapy*. 1998;78:286-288.

Scientific and Invitational Presentations (1996-Present):

Mueller MJ, Salsich GB, Strube MJ. Functional Limitations of Patients with Diabetes and Transmetatarsal Amputation. Poster presentation. APTA Combined Section Meeting. Atlanta, GA. 1996.

Dumas CJ, Mueller MJ. Use of Transparent Dressing to Continue Gait Training in Patients with Below Knee Amputation and Skin Breakdown. Poster presentation. APTA National Conference. Minneapolis, MN. 1996.

Mueller MJ. Research Symposium on Clinical Reasoning: Management of a Patient with Diabetes and a Foot Ulcer. *Invited Speaker*. Presented at APTA National Conference. Minneapolis, MN. 1996.

Mueller MJ. Research Symposium on Motor Control and Musculoskeletal Injuries: Movement Strategies to Compensate for Foot and Ankle Injuries. *Invited Speaker*. Presented at APTA National Conference. Minneapolis, MN. 1996.

Mueller MJ. Use of In-shoe Pressure Assessment in the Management of Patients with Diabetes and Neuropathic Ulcers. *Invited Speaker*. Presented at Department of Kinesiology, University of Minnesota. Minneapolis, MN. 1996.

Mueller MJ. Effect of Six Types of Footwear on Peak Plantar Pressures in Patients with Transmetatarsal Amputation. Presented at 5th EMED Scientific Meeting. Won the Novel Award (3rd). Pennsylvania State University, University Park, PA. 1996.

Mueller MJ. Conservative Management of the Diabetic Foot. *Invited Speaker*. Program in Physical Therapy. University of Illinois. Chicago, IL. 1996.

Mueller MJ. Walking Strategies for Patients with Diabetes, and Biomechanical Management of the Transmetatarsal Amputee. *Invited Speaker.* University of Texas Health Science Center at San Antonio, TX. 1996.

Mueller MJ. Gait Research: What is the Next Step - Report on NIH sponsored Gait Conference. *Invited Speaker.* Combined Section Meeting, APTA. Dallas, TX. 1997.

Mueller MJ. Pathomechanics Affecting the Neuropathic Foot, Factors Contributing to Orthopaedic Foot and Ankle Injuries. *Invited Speaker.* Public Health Service Conference. Phoenix, AZ. 1997.

Mueller MJ. Foot Biomechanics and Gait Analysis, Footwear for Patients with Diabetes and Transmetatarsal Amputation. *Invited Speaker.* American Orthopaedic Foot and Ankle Society Conference. St. Louis, MO. 1997.

Mueller MJ, McEwen I. Research: What Can the Clinician Do? *Invited Speaker.* MAPTA. Lake of the Ozarks, MO. 1997.

Mueller MJ. Clinical reasoning; Management of a patient with diabetes and a foot ulcer. *Invited Speaker.* National Conference, APTA. San Diego, CA. 1997.

Mueller MJ, Sahrman SA, Brown MB, Otis C, Vandervort A. Symposium on Stiffness: Blessing or Curse? What if anything should we do about it? *Invited Speaker.* National Conference, APTA, San Diego, CA, 1997.

Brown HE, Mueller MJ. A step-to gait decreases pressures on the forefoot. Poster presentation. National Conference, APTA. San Diego, CA. 1997.

Shiplett BL, Mueller MJ. Effects of cane and orthowedge on plantar pressures during walking. Poster presentation. National Conference, APTA. San Diego, CA. 1997.

Mueller MJ. Strategies to Reduce Plantar Pressures. *Invited Speaker.* Prevention of Diabetic Foot Ulcers, An International Colloquium. Thomas Jefferson University. Philadelphia, PA. 1998.

Kelly V, Mueller MJ, Sinacore DR. Gait characteristics associated with peak plantar pressures. Poster presentation. National Conference, APTA. Orlando, FL. 1998.

Mueller MJ. Conservative management of the diabetic foot can help to prevent amputation. *Invited Speaker.* Lectures in Excellence. University of Montana. Missoula, MT. 1998.

Mueller MJ. Unloading techniques for neuropathic ulcers. *Invited Speaker.* 13th Annual Clinical Symposium on Wound Care. Atlanta, GA. 1998.

Mueller MJ. Steps on a path investigating the insensitive foot. *Invited Speaker.* Programs in Physical Therapy. Northwestern University. Chicago, IL. 1998.

Salsich GB, Mueller MJ. A quantitative, clinical measure of ankle stiffness. Poster presentation. National Conference, APTA. Orlando, FL. 1999.

Mueller MJ. Writing an Update for Physical Therapy. *Invited Speaker*. Combined Section Meeting, APTA. Seattle, WA. 1999.

Mueller MJ. Improving the Odds; Preparing a Successful Grant Application. *Invited Speaker*. Combined Section Meeting, APTA. Seattle, WA. 1999.

Salsich GB, Mueller MJ, Brown M, Sahrman SA. Passive ankle stiffness in subjects with diabetes and peripheral neuropathy compared to age-matched controls. Poster presentation. National Conference, APTA. Washington DC. June 1999.

Richter EJ, Morley RE, Pickard W, Maluf KS, Klaesner JW, Mueller MJ. In-Shoe Multisensory Data Acquisition. Biomedical Engineering Society & Engineering in Medicine and Biology Society (BMES & EMBS) Joint Conference. Atlanta, GA. 1999;Proceedings 6.3.1-2.

Robertson DD, Smith KE, Commean PK, Mueller MJ, Pilgram T. Visualization and Modeling of the Foot. Precision and Accuracy. Biology Society (BMES & EMBS) Joint Conference. Atlanta, GA. 1999;Proceedings 6.3.1-1.

Klaesner JW, Commean PK, Hastings MK, Mueller MJ. Portable Soft Tissue Indentor for Use in Clinical Settings. Biology Society (BMES & EMBS) Joint Conference. Atlanta, GA; 1999;Proceedings 6.3.1-5.

Maluf KS, Richter EJ, Morley RE, Pickard WF, Klaesner JW, Mueller MJ. Validity of measurements obtained from an electronic monitoring system in diabetic footwear. APTA Combined Sections Meeting. New Orleans, LA. 2000. *Journal of Orthopedic and Sports Physical Therapy*. 2000;30:A12.

Hastings MK, Mueller MJ, Klaesner JW. Measurement of tissue stiffness using a portable indentor. APTA Combined Sections Meeting. New Orleans, LA. 2000. *Journal of Orthopedic and Sports Physical Therapy*. 2000;30:A7.

Sinacore DR, Mueller MJ, Hastings MK. Lack of primary aging effect on healing time of neuropathic ulcers using TCC. Combined Sections Meeting, APTA. Issues in Aging. New Orleans, LA. 2000;23-26.

Mueller MJ. Computer Modeling of the Diabetic Foot and Sensory Substitution. *Invited Speaker*. International Conference of Advanced Prosthetics, Flex Foot. Newport Beach, CA. 2000.

Mueller MJ. Mechanical Factors Contributing to Skin Breakdown and Wound Healing on Patients with Diabetes and Peripheral Neuropathy. *Invited Speaker*. University of Kansas Medical Center. Kansas City, MO. 2000.

Mueller MJ. Unloading the Diabetic Foot. Invited Speaker, Clinical Symposium on Advances in Wound Care. Springhouse Corporation. University of Pennsylvania. Nashville, TN. 2000.

Mueller MJ, Hastings MK, Sinacore DR, Henry JD, Johnson JE. Effect of Achilles tendon lengthening on muscle performance characteristics in patients with DM. Combined Sections Meeting, APTA. San Antonio, TX. 2001.

Maluf KS, Mueller MJ, Hastings MK, Henry JD, Johnson JE. Effect of Achilles tendon lengthening on gait characteristics in patients with DM. Combined Sections Meeting, APTA. San Antonio, TX. 2001.

Sinacore DR, Mueller MJ, Hastings MK, Henry JD. Does persistent hyperglycemia delay cutaneous neuropathic wound healing using TCC? Combined Sections Meeting, APTA. San Antonio, TX. 2001.

Hastings MK, Klaesner JW, Pilgram T, Mueller MJ. Metatarsal Soft Tissue Stiffness in Subjects with and without Diabetes. Combined Sections Meeting, APTA. San Antonio, TX. 2001.

Mueller MJ. How to Write an Update for Physical Therapy. APTA Annual Conference. Anaheim, CA. 2001; Cincinnati OH. 2002.

Mueller MJ. Preventing Amputation in Patients with Diabetes and Peripheral Neuropathy. *Invited Speaker*. Rehabilitation Grand Rounds. National Institutes of Health. Bethesda, Maryland. 2001.

Maluf KS, Mueller MJ, Hastings MK, Henry JD, Johnson JE. Effect of Tendo Achilles Lengthening on Ambulatory Plantar Loads in Patients with Diabetes Mellitus. Combined Sections Meeting, APTA. Boston, MA. *JOSPT*. 2002;32:A33-34.

Johnson JE, Mueller MJ, Hastings MK, Sinacore DR, Engsborg JR. Controlled Randomized Clinical Trial on the Effect of Tendo-Achilles Lengthening on Patients with DM and Neuropathic Plantar Ulcer. Won the Roger A. Mann Award at the American Orthopaedic Foot and Ankle Society Meeting. Transverse City, MI. June 2002.

Mueller MJ, Maluf K, Sinacore DR, Hastings M, Strube MJ, Engsborg J, Johnson JE. Effect of Tendo Achilles Lengthening on Forefoot Plantar Pressures, Ankle Motion and Plantar Flexor Power During Walking in Subjects with Diabetes and Peripheral Neuropathy. EMED Scientific Meeting. Satellite of 4th World Congress of Biomechanics. Kananaskis, Alberta. August 2002.

Maluf KS, Mueller MJ. Comparison of Physical Activity and Cumulative Plantar Tissue Stress Among Subjects with and Without Diabetes Mellitus and a History of Recurrent Ulcers. EMED Scientific Meeting. Satellite of 4th World Congress of Biomechanics. Kananaskis, Alberta. August 2002. (Won the Novel Award, \$10,000).

Mueller MJ, Hastings M, Commean PK, Smith K, Pilgram TK, Robertson, D, Johnson JE. Forefoot Structural Predictors of Plantar Pressure During Walking in People with Diabetes and Peripheral Neuropathy. IV World Biomechanics Conference. Calgary. August 2002.

Zou D, Mueller MJ, Smith K, Hastings M, Klaesner JW. Biomechanical modeling of Indentation Testing and Application in Plantar Pressure Prediction of Diabetic Foot. IV World Biomechanics Conference. Calgary. August 2002.

Klaesner JW, Gutekunst DJ, Smith KE, Mueller MJ. Comparison of Tissue Indentation and CT Measured Tissue Density Measurements. BMES/EMBS Meeting. Houston, TX. October 2002.

Mueller MJ. Physical Stress Theory, Footwear as a Pathogen. *Invited Speaker*. University of Texas Health Science Center at San Antonio, TX. December 2002.

Mueller MJ, Minor SD, Novak CB, Brown MB. Tissue Adaptation: Principles and Application of the *Physical Stress Theory* to the Four Practice Patterns. Symposium at APTA Combined Sections Meeting. Tampa, Florida. February 2003.

Mueller MJ. Physical Stresses Contributing to Skin Injury and Healing in Patients with Diabetes and Peripheral Neuropathy. *Invited Speaker*. East Carolina University. April 2003.

Mueller MJ. Diabetic Ulcer Dilemma: Protecting the Insensitive Foot While Increasing Activity. *Invited Speaker*. APTA Conference. Washington D.C. June 2003.

Mueller MJ. Journal Central: Updates. *Invited Speaker*. APTA Annual Conference. Washington D.C. June 2003; Chicago, June 2004; Boston, June 2005.

Mueller MJ. Biological Adaptation to Changes in Mechanical Environment: Application to Physical Therapy Practice. *Invited Speaker*. Physical Stress Theory. APTA Annual Conference. Washington D.C. June 2003.

Mueller MJ. Repetitive Stress: What is harmful and what is helpful? *Invited Speaker*. Evidence Based Care of the Diabetic Neuropathic Foot: A Multidisciplinary Approach. LDS Hospital. Salt Lake City. August 4-5, 2003.

Mueller MJ. Ministry of Health's Honorary Visiting Expert on Management of Diabetic Foot and Amputees. Singapore General Hospital. Singapore. September 5-13, 2003.

Lott DJ, Sinacore DR, Strube MJ, Mueller MJ. Impact of Achilles tendon lengthening on functional limitations and disability of patients with neuropathic plantar ulcers. Platform presentation. Combined Section Meeting, APTA. Nashville, TN. February 2004.

Lott DJ, Bohnert KL, Klaesner JW, Maluf KS, Mueller MJ, Sinacore DR. Amount and intensity of activity during off-loading treatment and the healing of neuropathic plantar ulcers. Poster presentation. Combined Section Meeting, APTA. Nashville, TN. February 2004.

Lewis CL, Mueller MJ, Sinacore DR, Johnson JE. Neuropathic forefoot ulcer recurrence. Poster presentation. Combined Section Meeting, APTA. Nashville, TN. February 2004.

Lewis CL, Sahrman SA, Mueller MJ. Hip flexion moment reduced when walking with less hip extension. Poster presentation. Combined Section Meeting, APTA. Nashville, TN. February 2004.

Mueller MJ. Tendon Achilles Lengthening for treatment of Neuropathic Ulcers. *Invited Speaker*. American Diabetes Association's 65th Scientific Meeting. Orlando, Florida. June 2004.

Mueller MJ. Scholarship and Publication: Everything you need to know. *Invited Speaker with Editorial Board of Physical Therapy*. Combined Section Meeting, APTA. New Orleans, LA. February 2005.

Mueller MJ. Orthopaedic Physical Therapy Research Information Exchange; Biomechanics and Motion Analysis. *Invited Speaker*. Combined Section Meeting, APTA. New Orleans, LA. February 2005.

Lott DJ, Mueller MJ, Hastings MK, Commean PC, Smith KE. Effect of footwear on pressure reduction and soft tissue deformation of the plantar neuropathic foot. Platform presentation. Gossman Seminar. Combined Section Meeting, APTA. New Orleans, LA. February 2005.

Mueller MJ. Is it Protect the Foot or Use it or Lose It? *Invited Speaker*. Diabetic Foot Global Conference. Los Angeles, CA. March 2005.

Mueller MJ. How is a Neuropathic Ulcer like Patellofemoral Pain? Common Denominators in Physical Therapy Practice and Research. *Invited Speaker*. St. Louis University. St. Louis, MO. Distinguished Speaker Series. March 2005.

Mueller MJ, Actis RL, Ventura LB, Szabo BA. Finite element analysis on the effect of soft tissue thickness on plantar pressures in subjects with diabetes and peripheral neuropathy. Poster presentation. International Society of Biomechanics. Cleveland, OH. August 2005.

Lott DJ, Commean PK, Smith KE, Mueller MJ. Relationship between soft tissue deformation and applied pressures along the second ray of the neuropathic foot. Poster presentation. International Society of Biomechanics. Cleveland, OH. August 2005.

Zou D, Lott D, Mueller MJ. Pressure gradient as a potential indicator of plantar skin injury on the neuropathic foot. Poster presentation. International Society of Biomechanics. Cleveland, OH. August 2005.

Actis RL, Ventura LB, Szabo BA, Commean PK, Smith KE, Lott DJ, Mueller MJ. Plantar pressure distribution in the diabetic foot during push-off: numerical simulation using the p-version of the finite element method. Platform presentation. International Society of Biomechanics. Cleveland, OH. August 2005.

Mueller MJ. Research Exchange: Biomechanics and Motion Analysis. *Invited Speaker*. Combined Section Meeting, APTA. San Diego, CA. February 2006.

Mueller MJ, Actis RL, Ventura LE. A computational model of the diabetic foot: Implications for Physical Therapy. Platform presentation. Combined Section Meeting, APTA. San Diego, CA. February 2006.

Hastings MK, Mueller MJ, Pilgram TK, Commean PK. Effect of metatarsal pad placement on plantar pressure at the second metatarsal head. Platform presentation. Combined Section Meeting, APTA. San Diego, CA. February 2006.

Lott DJ, Mueller MJ, Hastings MK, Commean PK, Smith KE. Effect of Footwear and Orthotic Devices on Soft Tissue Thickness and Pressure Variables of the Neuropathic Foot. Platform presentation. Combined Section Meeting, APTA. San Diego, CA. February 2006.

Mueller MJ. Paradoxical Responses to Physical Stress on the Neuropathic Foot. *Invited speaker*. Pecoraro Lecture for the American Diabetes Association. Washington, DC. June 10, 2006.

Mueller MJ, Hasting MK. Movement Systems Impairment Syndromes of the Foot/Ankle with Applications

of the Physical Stress Theory. *Invited speaker*. APTA National Conference. Orlando, FL. June 2006.

Mueller MJ, Zou D, Bohnert KL, Sinacore DR. Subsurface shear stress associated with forefoot skin breakdown on the neuropathic foot. Platform presentation at EMED Scientific Meeting, Munich, Germany, July 2006.

Zou D, Sinacore DR, Bohnert KL, Mueller MJ. Estimating subsurface shear stress in the neuropathic foot from pressure distribution. Poster presentation at EMED Scientific Meeting, Munich, Germany, July 2006.

Lott DJ, Sinacore DR, Mueller MJ. Skin temperature response to stress and activity on the foot. Platform Presentation at the Gossman Seminar, APTA's Combined Sections Meeting, Boston, MA, February, 2007.

Mueller MJ. Funding Options to Develop Research Career. *Invited speaker*. APTA National Conference. Denver, CO. June 2007.

Mueller MJ. Has Achilles Tendon Lengthening Made Plantar Forefoot Ulcer Care Obsolete: Or We Just Creating More Heel Ulcers? *Invited Speaker*. Diabetic Limb Salvage, Georgetown University Hospital, Washington DC, September 2007

Mueller MJ. Efficacy and mechanism of orthotic devices to unload metatarsal heads in people with DM and a history of ulcer. *Invited Speaker*. International Conference on Foot Biomechanics and Orthotic Therapy. San Diego, CA, 2007.

Mueller MJ. Funding Options to Develop Research Career. *Invited speaker*. APTA National Conference, Combined Sections Meeting, Nashville, TN February 2008, & again in Las Vegas, February 2009.

Mueller MJ. Research Exchange: Biomechanics and Motion Analysis. *Invited Speaker*. Combined Section Meeting, APTA, Nashville, TN February 2008, Las Vegas, February 2009, San Diego, February 2010.

Mueller MJ. Modulating Physical Stresses to Help Prevent Amputation. *Invited Keynote Speaker*. Institute of Rehabilitation Research Day, University of Pittsburgh, Physical Medicine and Rehabilitation, June 2008.

Mueller MJ. Effect of Diabetes on Skin and Joints. *Invited Speaker*. Combined Section Meeting, APTA, Las Vegas, February 2009.

Kwon, OY, Tuttle L, Commean P, Mueller MJ. Reliability and validity of measures of hammer toe deformity and tibial torsion. Platform presentation at Combined Section Meeting, APTA, Las Vegas, February 2009.

Kwon, OY, Tuttle L, Johnson JE, Mueller MJ. Muscle imbalance in people with hammer toe deformity. Platform presentation at Combined Section Meeting, APTA, Las Vegas, February 2009.

Mueller MJ. Controversies in Off-Loading. *Invited Speaker*. Symposium on Advanced Wound Care. Dallas, TX April 2009

Mueller MJ. Physical Stress Theory with Applications to Neuropathy. *Invited Speaker*, 30th Anniversary of

Yonsei University, Seoul, South Korea, July 2009

Mueller MJ. Service trip with a group of Physical Therapy Students from Washington University to provide physical therapy services in Zacapa, Guatemala; Dec 28, 2009-January 8, 2010.

Mueller MJ. Funding Options to Develop Research Career. *Invited speaker*. APTA National Conference, Combined Sections Meeting, San Diego February 2010.

Tuttle LJ, Mueller MJ, Sinacore DR: The effects of peripheral neuropathy on intermuscular adipose tissue, muscle performance, and physical function. Presented at the Section on Research Retreat; Mechanisms Underlying Disordered Movement: Impairments with Force Generation, Pacific Grove, CA, Aug, 2010

Tuttle LJ, Mueller MJ, Sinacore DR: Intramyocellular Lipid Content is Associated with Impaired Muscle Performance and Function in People with Diabetes and People with Diabetes and Peripheral Neuropathy. Presented at Gossman Symposium, Combined Sections Meeting, APTA, San Diego CA, Feb, 2010

Tuttle LJ, Mueller MJ, Sinacore DR: Intramyocellular Lipid Content and Intermuscular Adipose Tissue Content in People with Diabetes and Diabetes and Peripheral Neuropathy. Presented at University of Florida 5th Annual Neuromuscular Plasticity Symposium, Gainesville, FL, March 2010

Mueller MJ: Biomechanical considerations for treating patients with lower extremity amputation. *Invited Speaker*, St. Mary's Hospital, Decatur, IL, May, 2010

Mueller MJ: Stress Thresholds for Injury and Adaptation on the Neuropathic Foot: Moving Targets? *Invited Speaker*, International Foot and Ankle Biomechanics Conference, Seattle, WA, Sept 2010

Mueller MJ & Tuttle L: Effects of an exercise intervention on people with diabetes and peripheral neuropathy. *Invited Speaker*, Alumni Day, Washington University School of Medicine, St. Louis, MO, Sept 2010

Mueller MJ. Funding Options to Develop Research Career. *Invited speaker*. APTA National Conference, Combined Sections Meeting, New Orleans, February 2011

Mueller MJ. Intermuscular adipose tissue in patients with diabetes and peripheral neuropathy. *Invited Speaker*. National Center for Muscle Rehabilitation Research, San Diego, CA, September 2011

Shah K, Mueller MJ. Effect of selected exercises on in-shoe plantar pressures in people with diabetes and peripheral neuropathy. Presented at Combined Sections Meeting, APTA, Chicago, IL, Feb 2012

Mueller MJ: Stress Thresholds for Injury and Adaptation on the Neuropathic Foot. *Invited Speaker*, Department of Physical Therapy, University of Iowa, Iowa City, Iowa, March 2012

Mueller MJ: Biomechanics of Achilles Tendon Lengthening. *Invited Speaker*, Diabetic Limb Salvage, Medstar Georgetown University Hospital, Washington DC, October 2012

Mueller MJ, Tuttle L, LeMaster J, Strube M, McGill J, Hasting, M, Sinacore D. Weight bearing vs. non-weight bearing exercise for people with diabetes and peripheral neuropathy. Platform presentation at APTA

Combined Sections Meeting 2013 in San Diego, California, January 21 – 24

Sinacore D, Gutekunst D, Bohnert K, Mueller M, Hastings M. Metatarsal buckling ratio as a fracture index in neuropathic (Charcot's) arthropathy. Platform presentation at APTA Combined Sections Meeting 2013 in San Diego, California, January 21 – 24

Hastings M, Woodburn J, Strube M, Mueller M, Stein M, Sheldahl K, Johnson J, Sinacore D. Heel Rise Kinetics and Kinematics in individuals with diabetes related foot deformity. Platform presentation at APTA Combined Sections Meeting 2013 in San Diego, California, January 21 – 24.

Harris-Hayes M, Mueller M, Steger-May K, Sahrman S, Salsich G. Reduced hip muscle strength in patients with pre-arthritis hip disease. Platform presentation at APTA Combined Sections Meeting 2013 in San Diego, California, January 21 – 24.

Gelber J, Sinacore D, Strube M, Mueller M, Bohnert K, Snozek D, Johnson J, Hastings M. Plantar fascia function in diabetes mellitus related foot deformity. Platform presentation at APTA Combined Sections Meeting 2013 in San Diego, California, January 21 – 24.

Shah K, Clark R, McGill J, Mueller M. Upper Extremity impairments in a group of people with Diabetes Mellitus. Poster presentation at APTA Combined Sections Meeting 2013 in San Diego, California, January 21 – 24.

Harris-Hayes M, Vasiljevic D, Mueller MJ, Clohisy JC, Salsich GB: Hip and pelvis kinematics during a single leg squat in people with and without pre-arthritis hip disease. Platform presentation at Gait and Clinical Motion Analysis Society, May 2013.

Mueller MJ. Modifying physical stresses to prevent lower extremity amputation. *Invited Keynote Speaker*; Research Day, University of Maryland School of Medicine, Baltimore, MD, May 2013

Mueller MJ. Stress for Success. *Invited Speaker*. Research Seminar, Department of Physical Therapy, University of Colorado, Denver, December 2013

Cheuy VA; Hastings MK; Commean PK; Ward SR; Mueller MJ; Intrinsic Foot Muscle Deterioration and Metatarsophalangeal Joint Angle in People with Diabetes and Neuropathy, Poster presentation, American Society of Biomechanics, Cleveland, Sept 2013 and at Washington University ICTS Research Training Symposium and Poster Session, St Louis Oct 2013

Hastings MK, Mueller MJ, Commean PK, Strube MJ, Sinacore DR. Leg muscle and fat volumes are associated with muscle performance in individuals with diabetes mellitus and peripheral neuropathy. Platform Presentation at APTA Combined Sections Meeting in Las Vegas, Feb, 2014.

Shah KM, Clark R, McGill JB, Lang CE, Mueller MJ. Relationship between advanced glycation end-products and upper extremity movement impairments in people with diabetes mellitus. Gossman Symposium, Platform Presentation at APTA Combined Sections Meeting in Las Vegas, Feb, 2014.

Harris-Hayes M, Czuppon S, Van Dillen LR, Sahrman SA, Schootman M, Salsich GB, Clohisy JC, Mueller MJ. Movement Pattern Training Improves Function in People with Pre-arthritis Hip Disease:

Preliminary Data. Platform Presentation at APTA Combined Sections Meeting in Las Vegas, Feb, 2014.

Mueller MJ. Musculoskeletal Problems with Diabetes. Invited speaker, the Diabetic Divas Support Group, St Louis MO, October 2014

Kluding P, Bareiss SK, Marcus R, Sinacore DR, Hastings MK, Mueller MJ. Exercise for Diabetic Peripheral Neuropathy: A Paradigm Shift. Presented as an Educational Session at APTA Combined Sections Meeting, Feb, 2015 Indianapolis, IN.

Hubbard M, Norris T, Tymkew H, Klinkenberg WD, Mueller MJ. Physical Mobility Characteristics of the Vascular Surgery Population in the Acute Care Setting. Presented at BJH Research Day, Oct, 2014, St Louis MO; APTA Combined Sections Meeting, Feb, 2015 Indianapolis, IN

Vasiljevic D, Salsich GB, Aubin BG, Mueller MJ, Clohisy JC, Harris-Hayes M. Three-dimensional movement pattern characteristics in young adults with chronic hip joint pain. Accepted for presentation at the APTA Combined Sections Meeting, Feb, 2015 Indianapolis, IN

Cheuy VA; Hastings MK; Mueller MJ; Metabolic and muscle contributors to diabetic foot deformity. Poster presentation at Diabetes Research Center Diabetes Day, Nov, 2014.

Cheuy VA, Hastings MK, Mueller MJ. Metabolic and Muscle Contributors to Diabetic Foot Deformity. Graduate Student Research Symposium, St. Louis, MO, February 2015 (*Poster presentation*).

Cheuy VA, Hastings MK, Mueller MJ. Metabolic and Muscle Contributors to Diabetic Foot Deformity. Musculoskeletal Research Center Annual Winter Symposium, St. Louis, MO, February 2015 (*Poster presentation*).

Cheuy VA; Hastings MK; Mueller MJ; Metabolic and muscle contributors to diabetic forefoot deformity. Oral Presentation at International Society of Biomechanics, Glasgow, UK, July 2015

Mary Hastings, Michael Mueller, James Woodburn, Michael Strube, Paul Commean, Jeffrey Johnson, Victor Cheuy, David Sinacore. Predictors of midfoot deformity and function in individuals with diabetes and peripheral neuropathy. Oral Presentation at International Society of Biomechanics, Glasgow, UK, July 2015

Mueller MJ: Successful Adaptation. Invited speaker to give the Jessie Ball Lecture for White Coat Ceremony, Kansas University Program in Physical Therapy, Kansas City, KS, October, 2015

Mastenbrook MJ, Commean PK, Hillen TJ, Salsich GB, Mueller MJ, Clohisy JC, Harris-Hayes M. Hip abductor volume and strength differences between women with prearthritic hip disorders and asymptomatic controls. *Journal of Orthopaedic and Sports Physical Therapy*. 2016;46(1):A113-114. Poster presentation at CSM, APTA, Anaheim, CA, Feb 2016.

Harris-Hayes M, Salsich GB, Steger-May K, Clohisy JC, Van Dillen LR, Schootman M, Czuppon S, Commean PK, Hillen TJ, Sahrman SA, Mueller MJ. Reduced hip adduction is associated with improved function after movement pattern training in people with prearthritic hip disease. World Congress on Osteoarthritis, April 2016, Amsterdam, The Netherlands.

Korgan WE, Hastings MK, Bohnert KL, Sorensen CJ, Clark RB, Lang CE, McGill J, Mueller MJ. Effect of a shoulder movement intervention on joint mobility, pain, and disability in people with diabetes mellitus: A randomized trial. APTA Combined Sections Meeting. San Antonio, TX Feb, 2017

Zheng J, Muccigrosso M, Hastings MK, Zayed M, Mueller MJ. A MRI compatible foot ergometer. International Society for Magnetic Resonance in Medicine (ISMRM) 25th Annual Meeting & Exhibition. Honolulu, Hawaii, 22-27 April 2017

Mueller MJ, Sorensen CJ, McGill JB, Clark BR, Lang CE, Chen L, Bohnert KL, Hasting MK. (2017). "Effect of a Shoulder Movement Intervention on Joint Mobility, Pain and Disability in People with Diabetes." American Diabetes Association 77th Scientific Sessions, June 9-13, San Diego, CA. <http://www.abstractsonline.com/pp8/#!/4297/presentation/20183>.

Foster SN, Harris MD, Hastings MK, Mueller MJ, Wiseman T, Huber N, Harris-Hayes MJ. Ankle Dorsiflexion and 2D hip, pelvic, and trunk kinematics in patients with chronic hip joint pain during forward step-down. APTA Combined Sections Meeting. New Orleans, LA 2018.

Jeong H, Mueller MJ, Hastings MK. Performance of bilateral and unilateral heel rise task in people with diabetes mellitus and peripheral neuropathy. Submitted: APTA Combined Sections Meeting. New Orleans, LA 2018. Journal of Orthopaedic and Sports Physical Therapy. 2018;48(1):A131

Edalati M, Sorensen C, Hastings MH, Zayed M, Mueller MJ, Zheng J. Diffusion tensor imaging of the human calf in healthy and diseased subjects during plantar-flexion exercise. Joint Annual Meeting ISMRM-ESMRMB, Paris, June 16-21, 2018.

Edalati M, Hastings MH, Zayed M, Muccigrosso D, Li R, Mueller MJ, Zheng J. MRI Methods for Exercise-based Perfusion Assessment of Diabetic Feet with Ulcers. Joint Annual Meeting ISMRM-ESMRMB, Paris, June 16-21, 2018.

Edalati M, Sorensen C, Hastings MH, Zayed M, Mueller MJ, Zheng J. Microstructure Dysfunction May Be More Severe in Diabetes than in Peripheral Arterial Disease—A MRI Diffusion Tensor Imaging Study. American Diabetes Association Conference, June 2018, Orlando, FL

Edalati M, Sorensen C, Hastings MH, Zayed M, Mueller MJ, Zheng J. 3D Microstructural Fiber Tracking of the Human Calf Muscles in Individuals With and Without Type 2 Diabetes during Rest and Exercise. American Diabetes Association Conference, June 2018, Orlando, FL

Edalati M, Sorensen C, Hastings MH, Zayed M, Mueller MJ, Zheng J. Magnetic Resonance Diffusion Tensor Imaging of the Human Calf in Subjects With and Without Type 2 Diabetes during Rest and Isometric Plantarflexion Exercise. American Diabetes Association Conference, June 2018, Orlando, FL

Zheng J, Hastings MK, Zayed M, Mueller MJ. Magnetic Resonance Imaging of Diabetic Feet – Going with the Flow. Society for Magnetic Resonance Angiography, Annual Meeting, Glasgow, Scotland, August 2018.

Mueller MJ. Spectrum of Research Training Opportunities for the DPT. Invited Lecture. University of

Colorado, Denver, Sept, 2018

Harris-Hayes M, Steger-May K, Bove A, Foster SN, Mueller MJ, Clohisy JC, Fitzgerald GK. Movement pattern training compared to standard strengthening and flexibility among patients with prearthritic hip disorders: a pilot multicenter randomized clinical trial. World Congress on Osteoarthritis (OARSI), Toronto, ON.

Mueller MJ. Mobility Advice to Help Prevent Re-Ulceration. Invited Lecture, 8th International Symposium on the Diabetic Foot (ISDF), The Hague, The Netherlands, May 2019

Edalati M, Hastings M, Sorensen CJ, Mueller MJ, Zheng J. Assessment of Calf Skeletal Muscle in Individuals with Diabetes and a Foot Ulcer Using Diffusion MRI. ADA Conference, June 2019.

Koch, K, Commean, PK, Hillen, TJ, Mueller, MJ, Clohisy, JC, Harris-Hayes, M. Comparison between Movement Pattern Training and Strengthening on Muscle Volume and Strength for Hip Pain. APTA Combined Sections Meeting. Denver, 2020

Jeong HJ, Mueller MJ, Stumpf J, Hastings MK. Role of foot and ankle joint mobility on heel rise performance in people with diabetes. APTA Combined Sections Meeting. Denver, 2020

Foster SN, , Spitznagle TM, Tuttle LJ, Sutcliffe S, Lowder JL, Meister M, Ghetti C, Mueller MJ, Harris-Hayes M. Hip and Pelvic Floor Strength in Women with and without Urinary Urgency/Frequency: Preliminary Results. APTA Combined Sections Meeting. Denver, 2020