

# **PER GUNNAR BROLINSON, D.O.**

*Fellow, American Osteopathic Academy of Sports Medicine*

*Fellow, American Academy of Family Practice*

*Fellow, American College of Osteopathic Family Practice*

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## **Education:**

1974- 1978 University of Missouri, Columbia, MO  
Degree: Bachelor of Arts, Major: Biology  
1979- 1983 Kirksville College of Osteopathic Medicine, Kirksville, MO  
Degree: Doctor of Osteopathy  
1983 Pre-Doctoral Clinical Fellowship in Sports and Preventative Medicine  
Institute for Human Fitness  
Texas College of Osteopathic Medicine - Fort Worth, TX

## **Post-Doctoral Training:**

1983- 1984 Traditional Internship, Family Medicine  
Parkview Hospital - Toledo, OH  
2003- 2005 Faculty Development Fellowship, Clinical Research  
Edward Via Virginia College of Osteopathic Medicine - Blacksburg, VA

## **Current Academic Appointments:**

August 27, 2015

2014- **Vice Provost for Research**  
Edward Via College of Osteopathic Medicine – Blacksburg, VA

2009- **Medical Director**  
Edward Via College of Osteopathic Medicine Impact Biomechanics Lab –  
Blacksburg, VA

2009- **Professor of Family Practice and Discipline Chair of Sports Medicine**  
Edward Via College of Osteopathic Medicine – Blacksburg, VA

2007- 2014 **Associate Dean for Clinical Research**  
Edward Via College of Osteopathic Medicine - Blacksburg, VA

2005- **Director of Primary Care Sports Medicine Fellowship**  
Virginia Tech and Edward Via College of Osteopathic Medicine – Blacksburg, VA

2005- **Adjunct Professor, Mechanical Engineering**  
Virginia Polytechnic Institute and State University - Blacksburg, VA

1990- 2002 **Adjunct Professor, College of Health Promotion and Human Services**  
University of Toledo, Toledo, OH

1985- 2002 **Adjunct Clinical Professor of Family Practice**  
Ohio University College of Osteopathic Medicine - Athens, OH

**Other Positions Held, Academic Appointments and Related Hospital Clinical Appointments:**

2010- **Tournament Physician**  
Greenbrier Classic PGA Tournament, White Sulphur Springs, WV

2008- **Co-Chairman**  
Institutional Review Board, Edward Via College of Osteopathic Medicine –  
Blacksburg, VA

2007- **Board Member**  
Center for Innovation in Construction Safety & Health Research, Virginia Tech

2004- 2008 **Head Team Physician**  
U.S. Freestyle Ski Team

2002- 2009 **Associate Professor of Family Practice and Discipline Chair of Sports Medicine**  
Edward Via College of Osteopathic Medicine - Blacksburg, VA

2002- **Head Team Physician**  
Virginia Polytechnic Institute and State University, Blacksburg, VA

2002- 2004 **Interim Director of Osteopathic Family Practice Residency Program**  
Carilion Health System, Roanoke, VA

2001- 2002 **Member**  
Timberstone Family Physicians, General Family Practice and Primary Care Sports  
Medicine, Toledo, OH

1998- 2002 **Co-Chairman**  
Institutional Review Board, The Toledo Hospital, Toledo, OH

1996- 1998 **Member**  
Institutional Review Board, The Toledo Hospital, Toledo, OH

1996- **Team Physician**  
United States Ski and Snowboard Association

1995- 2001 **Member**  
Port Sylvania Family Physicians, General Family Practice and Primary Care Sports  
Medicine, Toledo, OH

1994- **Volunteer Physician**  
United States Olympic Committee

1993- 2002 **Medical Director**

August 27, 2015

High School Sports Medicine Outreach Program, The Toledo Hospital and ProMedica Health System, Toledo, OH

1993- 2002 **Clinical Assistant Professor**  
Department of Orthopedic Surgery, School of Medicine, Medical College of Ohio, Toledo, OH

1993- 2002 **Co-Medical Director**  
Primary Care Sports Medicine Fellowship, The Toledo Hospital and ProMedica Health System, Toledo, OH

1993- 2002 **Medical Director**  
Welltrack, The Corporate Wellness Program, The Toledo Hospital and ProMedica Health System, Toledo, OH

1992- 1995 Family Practice Associates, General Family Practice and Primary Care Sports Medicine, Toledo, OH

1992- 1994 **Member**  
Pharmacy and Therapeutics Committee, Toledo Health Plan, Toledo, OH

1990- 2000 **Member**  
Osteopathic Education Committee, St. Vincent Medical Center, Toledo, OH

1990- 1992 **Member**  
Quality Assessment and Physician Reimbursement Committee, Paramount Health Care, Toledo, OH

1988- 2002 **Medical Director**  
Kinesiotherapy Clinic, Department of Kinesiology, College of Health Promotion and Human Services, University of Toledo, Toledo, OH

1988- 2000 **Summer Preceptor**  
Family Practice Department, Medical College of Ohio, Toledo, OH

1988- 1990 **Member**  
Compensation Committee, HMO Health Ohio, Toledo, OH

1986- 1993 **Co-Medical Director**  
"The Sports Medicine Connection"  
W.W. Knight Family Practice Residency, Toledo, OH

1986- 2002 **Co-Head Team Physician**  
University of Toledo Rockets, University of Toledo, Toledo, OH

1986- 1989 **Member**  
Board of Directors, Parkview Hospital, Toledo, OH

1984- 1990 **Medical Director/Founder**  
"Sports Check" Sports Medicine Clinic, Parkview Hospital, Toledo, OH

1984- 1992 The Point Place Medical Clinic, General Family Practice and Primary Care Sports Medicine, Toledo, OH

1984- 1995 **Medical Director**  
"Health Check" Corporate Fitness Program, Parkview Hospital, Toledo, OH

**Certification/Licensure:**

2011- North Carolina, Certificate #174776  
2010- West Virginia, License #2488  
2002- State of Virginia, License #0102201326  
1984- 2003 State of Ohio, License #3731 (inactive)  
1995- Board Certified, Primary Care Sports Medicine (Recertified January 2006)

August 27, 2015

1991- Board Certified, American College of Osteopathic Family Physicians (Recertified  
**May 2011**)  
1984- Diplomat National Board of Examiners  
1984- 2003 State of Ohio, License #3731 (inactive)

**Honors and Awards:**

2010 Beehler Research Mentor of the Year Award  
2008 Named in America's Top Family Physicians, 2008-2009 Edition  
2008 William J. Legg D. O. Distinguished Lecture Award  
2006 Named to the Olympic Sports Medicine Society  
2006 Medical Staff for the Winter Olympic Games, Turin, Italy  
2006 Fellow, American College of Osteopathic Family Practice  
2004 Named in America's Top Family Physicians, 2004-2005 Edition  
2001 Fellow, American Academy of Family Practice  
1998 Family Practice Teaching Award, American Academy of Family Practice  
1997 Outstanding Young Physician, Ohio State Medical Association  
1996 Fellow, American Osteopathic Academy of Sports Medicine

**Professional Memberships Including Leadership Positions:**

2002- Virginia Osteopathic Medical Association  
2002- Medical Society of Virginia  
2002- Southeast Chapter of the American College of Sports Medicine  
2000- 2002 **Ex-officio Member**  
Board of Directors, Health, Education, Research Corporation, ProMedica Health System  
1998- **Ex-officio Member**  
Board of Directors, American Osteopathic Academy of Sports Medicine  
1998- 2003 **Chairman**  
Sports Medicine Education and Evaluation Committee, American Osteopathic Association, Chicago, IL  
1996- 2002 **Member, Board of Directors**  
Health Enhancement Research Organization  
1996- 2001 **Sports Medicine Representative**  
Council on Postdoctoral Training, American Osteopathic Association, Chicago, IL  
1997- 1998 **President, Board of Directors**  
American Osteopathic Academy of Sports Medicine, Middleton, WI  
1993- 1996 **Member, Board of Directors**  
Midwest Chapter, American College of Sports Medicine, Indianapolis, IN  
1991- 1994 **Founding Member**  
Research Committee, American Medical Society for Sports Medicine, Middleton, WI  
1991- 1994 **Inaugural Board of Directors**  
American Medical Society for Sports Medicine, Middleton, WI  
1984- American Osteopathic Association  
1984- 2002 Ohio Osteopathic Association  
1984- The American College of Osteopathic Family Practitioners  
1984- American Academy of Family Physicians

August 27, 2015

1984- 2002 Ohio Academy of Family Physicians  
1984- American Medical Association  
1984- 2002 Ohio State Medical Association  
1984- 2002 The Toledo Academy of Medicine  
1984- The American Osteopathic Academy of Sports Medicine  
1990- 2002 **Charter Member**  
American Medical Society for Sports Medicine  
1984- The American College of Sports Medicine  
1984- 2002 Midwest Chapter of the American College of Sports Medicine  
2002- Southeast Chapter of the American College of Sports Medicine  
1984- 2000 The Association for Worksite Health Promotion  
1984- **Professional Member**  
American Running and Fitness Association

**Courses Taught, Primary Instructor:**

2011- Sports Medicine Curriculum  
School of Biomedical Engineering & Sciences Clinical Rotation in Sports Medicine  
at VCOM/VT BMES 6064 (VT) BMES 706  
(WF)

**Courses Taught, Supporting/Secondary Faculty:**

Principles of Primary Care  
Clinical Case Correlations  
Osteopathic Manipulative Medicine  
Clinical Athletic Training Seminars  
Graduate Mechanical Engineering Seminars  
Clinical Research Seminars, Post-Baccalaureate Program

**Continuing Education Course Administration or Director:**

Oct 2008 **Co-Chairman**  
American Osteopathic Association Research Conference; Las Vegas, NV  
Jul 2005 **Co-Chairman**  
VCOM Summer CME "On the Field Osteopathy-Sports Medicine Series"  
Jan 2005 **Co-Chairman**  
Promedica Health System CME Program, "An Osteopathic Approach" Sports  
Medicine Series  
Nov 2004 **Co-Chairman**  
48th Annual AOA Research Conference, "Manual Medicine in Special  
Populations", San Francisco, CA  
Jul 2004 **Co-Chairman**  
VCOM Summer CME Program, "An Osteopathic Approach" Sports Medicine  
Series

August 27, 2015

**Continuing Education Courses/Seminars/Workshops Taught:**

Oct	2015	<i>"Traumatic Brain Injury"</i> <i>"Return to Play from Traumatic Brain Injury"</i> AOA OMED 2015, Orlando, FL
Feb	2014	<i>"OMM for Family Practice Board Review"</i> , Danville Regional Medical Center Family Medicine Residency
Mar	2014	<i>"Clinical and Practical Implications of Sports Related Traumatic Brain Injury"</i> AAO Convocation, Colorado Springs, CO
Mar	2014	<i>"Emerging Trends in Concussion Research"</i> Annual AOASM Clinical Conference, Tampa, FL
Jan	2014	<i>"Standards of Care in Treating Multiple Concussions"</i> , 2 <sup>nd</sup> Annual #C4CT Concussion Awareness Summit, New York, NY
Sep	2013	<i>"Head Impact Biomechanics in Sport: Clinical and Practical Implications"</i> <i>"Current Research and Helmet Technology in Concussion"</i> <i>"Clinical and Practical Implications of Head Accelerations in Youth Football"</i> AOA OMED 2013, Las Vegas, NC
June	2013	3 <sup>rd</sup> Annual Brewer Sports Symposium, Minneapolis, MN
April	2013	<i>"Traumatic Brain Injury Update"</i> , Regional Osteopathic Medical Education (ROME) Southeast Conference, Myrtle Beach, SC
Mar	2013	<i>"Return to Play After Concussion"</i> , 28 <sup>th</sup> Annual AOASM Clinical Conference, Colorado Springs, CO
Oct	2012	<i>"The Biomechanical Basis of MTBI"</i> & <i>"Head Accelerations in Youth Football"</i> AOA OMED 2012, San Diego, CA
Apr	2012	<i>"Pre-competition Manipulation and Performance among Virginia Tech Football Player during the 2008-2009 Football Season Pilot Study"</i> , Using Manual and Conventional Therapies to Enhance Musculoskeletal Health Conference hosted by The Osteopathic Research Center, Fort Worth, TX
Apr	2012	<i>"The STAR Helmet Ranking System; Clinical and Practical Implications"</i> , 7 <sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg, VA
Apr	2012	<i>"Exercise and Immune Function"</i> (Keynote Address) & <i>"The STAR Helmet Ranking System"</i> 20 <sup>th</sup> Annual KCUMB Research Symposium, Kansas City, MO
Feb	2012	<i>"Clinical Implications of Youth Football Head Accelerations"</i> <i>"Biomechanical Basis for Mild Traumatic Brain Injury"</i> , MSU Neurology/ Rehabilitation Grand Rounds, East Lansing, MI
Oct	2011	<i>"STAR Football Helmet Rating System: Clinical and Practical Implications"</i> AOA/AOASM OMED 2011, Orlando, FL
Nov	2011	<i>"On-Field Emergencies"/"Concussion Evaluation and Treatment"</i> Halifax Regional Hospital Sports Medicine Symposium, South Boston, VA
Feb	2011	<i>"OMT for Sports Injury"/"Biomechanical Basis for MTBI"</i> WVSOM Midwinter Osteopathic Seminar, Charleston, WV
Oct	2010	<i>"Current Research on Concussion and Mild Traumatic Brain Injury"</i> AOA/AOASM Annual Fall Conference, San Francisco, CA
Aug	2010	<i>"The Biomechanical Basis for Mild Traumatic Brain Injury"</i> Athletic Trainers Society of New Jersey Sports Concussion Summit, Plainsboro, NJ
May	2010	<i>"Exercise is Medicine"</i>

August 27, 2015

South Boston Exercise & Metabolism Seminar, Halifax Regional Hospital, S  
Boston, VA

Apr 2010 *"The Athlete and Orthopedic Medicine"* (Keynote Address)  
American Academy of Orthopedic Medicine 27th Annual Conference, Amelia  
Island, FL

Apr 2010 *"The Biomechanical Basis for Mild Traumatic Brain Injury"*  
NCOMA Convention, Raleigh, NC

Mar 2009 AOASM Annual Clinical Conference, Snowbird, UT

Mar 2009 *"Traumatic Brain Injury-Understanding and Management Approaches"*  
ACOFP Annual Convention & Exhibition, Washington, DC

Oct 2008 *"The Biomechanics of Achilles Tendon Rupture"*  
AOA Annual Convention and Scientific Seminar, Las Vegas, NV

Oct 2008 *"Pre-Competition Manipulation and Performance"*  
AOA Annual Convention and Scientific Seminar, Las Vegas, NV

Oct 2008 *"Clinical Implications of Head Acceleration and Mild Traumatic Brain Injury"*  
AOA Annual Convention and Scientific Seminar, Las Vegas, NV

Sep 2008 *"Healthy Joints for a Lifetime-Joint and Postural Health"*  
VOMA CME Conference, Roanoke, VA

May 2008 *"Treating Musculoskeletal Injuries with Osteopathic Techniques: A Primer for  
Non-Osteopathic Practitioners"*  
ACSM 55th Annual Meeting, Indianapolis, IN

Apr 2008 *"Exercise and the Elderly"*  
AOASM 23rd Annual Clinical Conference, Kansas City, MO

Mar 2008 *"Manual Manipulation Techniques, SI Joint, L-Spine, T-Spine"*  
AMSSM Rendezvous II Meeting, Las Vegas, NV

Jun 2007 *"Analysis of Linear Head Accelerations from Collegiate Football Impacts"*  
Eighth Annual Philadelphia Sports Medicine Congress

Mar 2007 *"Head and Neck"*  
ACSM 54th Annual Meeting Clinical Case Slide, New Orleans, LA

Mar 2007 *"Measurement and Prediction of Head Injuries for Helmeted Athletes"*  
5th Annual Center for Biomechanics Instructional Symposium, Blacksburg, VA

Oct 2006 *"Current Concepts in the Evaluation & Treatment of Concussion"*  
30th Annual Meeting of the American Society of Biomechanics, Blacksburg, VA

Jun 2006 *"Clinical Work Shop, Kinetic Chain Evaluation"*  
ACSM 53rd Annual Meeting, Denver, CO

Jun 2006 *"On-the-Field Management of the Spine-Injured Athlete"*  
ACSM 53rd Annual Meeting, Denver, CO

Jun 2006 *"Inflammation After Acute Musculoskeletal Injuries: Friend or Foe?"*  
ACSM 53rd Annual Meeting (ACSM), Denver, CO

May 2006 *"View from the Mountain-Olympic Ski Team Coverage"*  
AOASM 21st Annual Clinical Conference, Scottsdale, AZ

May 2006 *"What's New in Concussion Evaluation and Management"*  
AOASM 21st Annual Clinical Conference, Scottsdale, AZ

Apr 2006 *"Shoulder Exam / Prolotherapy"*  
American Association of Orthopaedic Medicine 23rd Annual Conference and  
Scientific Seminar, Washington, DC

Jun 2005 *"Clinical Work Shop, Examination of the Low Back"*

August 27, 2015

Jun	2005	ACSM 52nd Annual Meeting (ACSM), Nashville, TN <i>"Clinical Work Shop, Examination of the Cervical Spine"</i>
May	2005	ACSM 52nd Annual Meeting (ACSM, Nashville, TN <i>"Muscle Energy, "Lower Extremity Techniques"</i>
Apr	2005	Mid Atlantic Trainers Association Annual Meeting; May 2006. Virginia Beach, VA <i>"Medical Preparedness for Team Travel"</i>
Apr	2005	AOASM 20th Annual Clinical Conference, St. Louis, MO <i>"Head Injury Update"</i>
Nov	2004	AOASM 20th Annual Clinical Conference, St. Louis, MO <i>"Sacroiliac Pain Syndromes" and "Workshop: OMT for Sacroiliac Pain"</i>
Nov	2004	AAO, San Francisco, CA <i>"Working with the Trained Athlete – Pre-competition Manipulation"</i>
Nov	2004	AAO 48th Annual AOA Research Conference, San Francisco, CA <i>"The Osteopathic Approach to the Athlete: A Hands-On Approach"</i>
	2004	AAO 48th Annual AOA Research Conference, San Francisco, CA <i>"Pain Management and Sports"</i>
Apr	2004	Southwestern Virginia Medical Society; Annual Spring Meeting; Blacksburg, VA <i>"Sports Medicine as a Certified Specialty: Roundtable Discussion"</i>
Apr	2004	Rendezvous 2004: Five Society Sports Medicine Meeting, Vancouver, BC <i>"Clinical Consequences of Head Accelerations in Collegiate Football"</i>
Apr	2004	Rendezvous 2004: Five Society Sports Medicine Meeting, Vancouver, BC <i>"Sports Prolotherapy"</i>
Apr	2004	Rendezvous 2004: Five Society Sports Medicine Meeting, Vancouver, BC <i>"Manipulation and Sports Performance"</i>
Apr	2004	Rendezvous 2004: Five Society Sports Medicine Meeting, Vancouver, BC <i>"Sports Manipulation Workshop"</i>
Apr	2004	Rendezvous 2004: Five Society Sports Medicine Meeting, Vancouver, BC <i>"Clinical Consequences of Head Accelerations in Collegiate Football"</i>
Apr	2004	AOASM 19th Annual Clinical Conference, Boston, MA <i>"Program Director's Workshop"</i>
Apr	2004	AOASM 19th Annual Clinical Conference, Boston, MA <i>"Lower Extremity Manipulative Techniques in Sports Medicine"</i>
Apr	2004	AOASM 19th Annual Clinical Conference, Boston, MA <i>"Spine Imaging Workshop"</i>
Feb	2004	AOASM 19th Annual Clinical Conference, Boston, MA <i>"GI Dysfunction in Athletes"</i>
Feb	2004	ACSM Team Physician Course, Part I: Las Vegas, NV <i>"Pelvic Dysfunction in Female Athletes"</i>
Feb	2004	ACSM Team Physician Course, Part I: Las Vegas, NV <i>"Sports Psychology, What Works and Why"</i>
Feb	2004	ACSM Team Physician Course, Part I: Las Vegas, NV <i>"Gastrointestinal Dysfunction in Athletes"</i>
Feb	2004	ACSM Team Physician Course, Part I: Las Vegas, NV <i>"Shoulder Workshop"</i>
Jun	2003	ACSM Team Physician Course, Part I: Las Vegas, NV <i>"The Collapsed Athlete"</i>
		Session Chair, ACSM; San Francisco, CA



August 27, 2015

Apr	2003	<i>"Program Director's Forum"</i> AOASM 18th Annual Clinical Conference, San Diego, CA
Apr	2003	<i>"Program Inspector's Workshop"</i> AOASM 18th Annual Clinical Conference, San Diego, CA
Apr	2003	<i>"OMT for the Lower Extremity in Sports"</i> AOASM Annual Clinical Conference, San Diego, CA
Apr	2003	<i>"Efficient Sideline Medical Documentation"</i> AOASM Annual Clinical Conference, San Diego, CA
Apr	2003	<i>"Founder's Pearls"</i> AMSSM 12th Annual Clinical Conference, San Diego, CA
Apr	2003	<i>"Low Back Mobilization Techniques in Sports"</i> AMSSM, San Diego, CA
	2003	<i>"SI Dysfunction in Sports"</i> VOMA Annual Spring Conference, Hot Springs, VA
	2003	<i>"Sports Medicine Update"</i> Southwestern Virginia Medical Society; Annual Spring Meeting; Blacksburg, VA
	2003	<i>"Osteopathic Sports Medicine: Making a Difference"</i> VOMA Annual Spring Conference, Hot Springs, VA
Jun	2002	<i>"Hits, Heat and Athletic Hearts"</i> Ohio Osteopathic Association 104th Annual Meeting & Scientific Seminar, Cincinnati, OH
Jun	2002	<i>"Osteopathic Approach to Upper Quadrant Injuries in the Athlete"</i> ACSM Annual Meeting, St. Louis, MO
Apr	2002	<i>"Strength Training in the Elderly: Can Old Dogs Learn New Tricks?"</i> AOASM 17th Annual Clinical Conference, Washington, DC
Apr	2002	<i>"Low back Mobilization - Pelvic-Sacroiliac Joint"</i> AMSSM 11th Annual Meeting, Orlando, FL
Jul	2001	<i>"State of the Art Integrated Manual Medicine in Sports"</i> International Federation of Manual/Musculoskeletal Medicine, Chicago, IL
Jul	2001	<i>"Sports Medicine Approach to Lower Extremity Diagnosis and Manipulative Treatment"</i> International Federation of Manual/Musculoskeletal Medicine, Chicago, IL
May	2001	<i>"Osteopathic Approach to the Thoracic Spine and Ribs"</i> Lecture and Workshop at American College of Sports Medicine, Baltimore, MD
May	2001	<i>"Bugs and Drugs"</i> Toledo Academy of Medicine, The Toledo Zoo, Toledo, OH
May	2001	<i>"Headaches in Athletes"</i> Toledo Academy of Pharmacy, Courtyard at the Navy Bistro, Toledo, OH
Apr	2001	<i>"The Knee Conundrum"</i> Office Orthopedics and Primary Care Sports Medicine for the Practicing Clinician, Continuing Medical Education Association, Scottsdale, AZ
Apr	2001	<i>"Don't Get Overstressed Treating Overuse Injuries"</i> Office Orthopedics and Primary Care Sports Medicine for the Practicing Clinician, Continuing Medical Education Association, Scottsdale, AZ
Apr	2001	<i>"Essentials in Short Arm Casting Workshop"</i> Office Orthopedics and Primary Care Sports Medicine for the Practicing Clinician, Continuing Medical Education Association, Scottsdale, AZ

August 27, 2015

Apr	2001	<i>"Lower Extremity Workshop"</i> AOASM and AMSSM Medical Conference, San Antonio, TX
Apr	2001	<i>Session Chair, Cycling Symposium</i> AOASM and AMSSM Medical Conference, San Antonio, TX
Mar	2001	<i>"What is a Team Physician?"</i> ACOFP Medical Conference, Philadelphia, PA
Feb	2001	<i>"Injuries and Disorders of the Knee"</i> Michigan State University Conference, Lansing, MI
Sep	2000	<i>"Sports Medicine Update"</i> The Millennial Founder's Day Osteopathy for the Ages. A Manipulative Update & Family Practice Reunion, Kirksville, MO
Sep	2000	<i>"Lower Extremity Manipulative Techniques in Sports"</i> The Millennial Founder's Day Osteopathy for the Ages. A Manipulative Update & Family Practice Reunion, Kirksville, MO
Jun	2000	<i>"Low Back Pain in the Adolescent Athlete"</i> Family Health Foundation of Mississippi, First Annual Sports Medicine Conference, Tupelo, MS
Jun	2000	<i>"The Coach/Physician Interface"</i> Family Health Foundation of Mississippi, First Annual Sports Medicine Conference, Tupelo, MS
Jun	2000	<i>"Clinical Workshop: Osteopathic Approach to the Pelvis"</i> ACSM Annual Meeting, Indianapolis, IN
Jun	2000	<i>"The Clinical Disciplines of Sports Medicine: Future Speculations"</i> ACSM Annual Meeting, Indianapolis, IN
May	2000	<i>"Olympic and Professional Sports Update (Skiing)"</i> AOASM 15th Annual Clinical Conference, Williamsburg, VA
May	2000	<i>"Diagnostic and Imaging Workshop"</i> AOASM 15th Annual Clinical Conference, Williamsburg, VA
May	2000	<i>Session Chair for Case Presentations</i> AOASM 15th Annual Clinical Conference, Williamsburg, VA
May	2000	<i>"Team Physician Consensus Statement"</i> AOASM 15th Annual Clinical Conference, Williamsburg, VA
May	2000	<i>"Cervical Spine Trauma: The 1998 Goodwill Games Gymnastic Event"</i> AOASM 15th Annual Clinical Conference, Williamsburg, VA
Apr	2000	<i>"Workshop: Casting Clinic – The Short Arm Cast"</i> Continuing Medical Education Associates (CMEA), The Office Orthopedics and Bone Radiology for the Primary Care Physician Course, Las Vegas, NV
Apr	2000	<i>"Panel Discussion: Primary Care Sports Medicine in a Managed Care World"</i> AMSSM 9th Annual Meeting, San Diego Hilton Resort. San Diego, CA
Apr	2000	<i>"Sports Medicine Injuries in the Foot &amp; Ankle: Technologies and Treatment"</i> Northwest Ohio Academy of Podiatric Medicine Retreat, Maumee Bay Resort, Toledo, OH
Mar	2000	<i>"Workshop: Program Directors/Inspectors"</i> ACOFP 37th Annual Convention and Scientific Seminar, Bally's Hotel, Las Vegas, NV
Mar	2000	<i>"Workshop: Casting Clinic – The Short Arm Cast"</i> Continuing Medical Education Associates (CMEA), The Office Orthopedics and

August 27, 2015

Jan	1999	Bone Radiology for the Primary Care Physician Course, New Orleans, LA <i>"The Twisted Ankle: When an X-Ray is Not Indicated"</i> Continuing Medical Education Associated (CMEA). The Office Orthopedics and Bone Radiology for the Primary Care Physician Course, La Jolla, CA
Jan	2000	<i>"Essentials of Short Arm Casting"</i> The Office Orthopedics and Bone Radiology Continuing Medical Education Association (CMEA), Las Vegas, NV
Oct	1999	<i>"Exercise and Its Effect on the Immune System"</i> Annual AOA OMED Meeting, San Francisco, CA
Jun	1999	<i>"Osteopathic Approach to the Wrist &amp; Elbow"</i> ACSM Annual Meeting, Seattle, WA
Jun	1999	<i>"Clinical Case Report: Back Pain – Soccer"</i> ACSM Annual Meeting, Seattle, WA
May	1999	<i>"Essentials of Short Arm Casting"</i> The Office Orthopedics and Bone Radiology Continuing Medical Education Association (CMEA), Las Vegas, NV
May	1999	<i>"Exercise &amp; Physical Fitness for Women Over 40"</i> WGTE Women's Health Forum. Seagate Center, Toledo, OH
Apr	1999	<i>"Sports Medicine for the Radiographer"</i> Continuing Medical Education Association (CMEA) Ohio Radiologic Society, Wyndham Hotel, Toledo, OH
Jan	1999	<i>"Common Foot and Ankle Problems in Athletes"</i> Continuing Medical Education Association (CMEA), San Diego, CA
Oct	1998	<i>"Lumbar Spine &amp; Lower Extremities: Hands on OMT"</i> Sports Medicine Fellowship CEM Seminar, Toledo, OH
Oct	1998	<i>"Alternative Medicine in the Nineties"</i> St. John Hospital & Medical Center CME Seminar, Detroit, MI
Oct	1998	<i>"Pain Management in the Athlete"</i> AOA Annual Conference & Scientific Seminar, New Orleans, LA
Mar	1998	<i>"Toe Jams, Flat Feet and Aching Arches: The Fore, Mid, and Hind Foot"</i> Continuing Medical Education Associates (CMEA). The Office Orthopedics and Bone Radiology for the Primary Care Physician. Royal Sonesta Hotel, New Orleans, LA
Mar	1998	<i>"The Twisted Ankle: When an X-Ray is Not Indicated"</i> Continuing Medical Education Associates (CMEA). The Office Orthopedics and Bone Radiology for the Primary Care Physician. Royal Sonesta Hotel, New Orleans, LA
Mar	1998	<i>"Prevention and Treatment of Running Injuries"</i> Continuing Medical Education Associates (CMEA). The Office Orthopedics and Bone Radiology for the Primary Care Physician, Royal Sonesta Hotel, New Orleans, LA
Mar	1998	<i>"Workshop: Casting Clinic – The Short Arm Cast"</i> Continuing Medical Education Associates (CMEA). The Office Orthopedics and Bone Radiology for the Primary Care Physician, Royal Sonesta Hotel, New Orleans, LA
Oct	1997	<i>"DHEA: A Hormone for the Ages"</i> AOA 102nd Annual Convention and Scientific Seminar, San Antonio, TX

August 27, 2015

Sep	1997	<i>"Taping and Splinting Workshop"</i> Continuing Medical Education Associates (CMEA). Internal Medicine Fall Program, Loews Resort. San Diego, CA
Jul	1997	<i>"A Practical Approach to Low Back Pain"</i> Continuing Medical Education Associates (CMEA). The Orlando Primary Care Review Course, Buena Vista Palace Resort and Spa, Walt Disney World Village, FL
Apr	1997	<i>"Osteopathic Considerations for the Lower Extremity"</i> AMSSM Sixth Annual Meeting, Colorado Springs, CO
Apr	1997	<i>"Prevention and Treatment of Common Running Injuries"</i> Office Orthopedics and Bone Radiology for the Primary Care Physician, Royal Sonesta Hotel, New Orleans, LA
Apr	1997	<i>"The Twisted Ankle: When an X-Ray Is Not Indicated."</i> Office Orthopedics and Bone Radiology for the Primary Care Physician, Royal Sonesta Hotel, New Orleans, LA
Oct	1996	<i>"Cervical Spine Injuries"</i> Ironman Sports Medicine Conference, Kona Surf Resort, Big Island, HI
Oct	1996	<i>"Common Lower Extremity Injuries in Athletes"</i> Ironman Sports Medicine Conference, Kona Surf Resort, Big Island, HI
Sep	1996	<i>"Practical Approach to Low Back Pain"</i> Continuing Medical Education Associates (CMEA). Fall Internal Medicine Program. San Diego, CA
	1996	<i>"Common Injuries in Runners"</i> Continuing Medical Education Associates (CMEA). Office Orthopedics and Bone Radiology for the Primary Care Physician, New Orleans, LA
Sep	1996	<i>"Common Traumatic Knee Injuries"</i> Continuing Medical Education Associates (CMEA). Fall Internal Medicine Program. New Orleans, LA
	1996	<i>"Foot and Ankle Injuries"</i> Continuing Medical Education Associates (CMEA). Office Orthopedics and Bone Radiology for the Primary Care Physician, New Orleans, LA
Jun	1996	<i>"Adolescent Male Athletes' Perceptions of an Experience with Athletic Cup Protection"</i> AMSSM and AOASM (Combined Meeting), Orlando, FL
	1995	<i>"Ergogenic Aids: Licit and Illicit"</i> Continuing Medical Education Associates (CMEA). Sports and Occupational Medicine in Primary Care, San Diego, CA
	1995	<i>"Sports Anemia"</i> Continuing Medical Education Associates (CMEA). Sports and Occupational Medicine in Primary Care, San Diego, CA
	1995	<i>"Casting Seminar"</i> Ohio Academy of Family Physicians 1995 Scientific Assembly, King's Island, Cincinnati, OH
	1995	<i>"Concussion: When to Return to Play; the Dilemmas"</i> ACSM Midwest Chapter, Pheasant Run, IL
	1995	<i>"Industrial Medicine and Sports Medicine: Comparisons and Similarities"</i> Western Ohio Occupational Medicine Association Conference, Toledo, OH

August 27, 2015

	1995	<i>"Primary Care and Preventive Medicine: Building the Team!"</i> ACSM Midwest Chapter, Wright State University, Dayton, OH
	1995	<i>"Primary Care and Preventive Medicine: Utilizing the Team Approach to Industrial/Occupational Medicine"</i> AOA Convention and Scientific Seminar, Orlando, FL
Oct	1995	<i>"Effect of a Corporate Weight management Challenge"</i> Stuber LL, Lager MS, Reeves BD, Miller DR, Andres FF, Brolinson PG
	1995	Annual Meeting, The Midwest Regional Chapter of ACSM. Pheasant Run. St. Charles, IL
	1995	<i>"Fluid and Electrolyte Balance During an International Distance Triathlon"</i> ACSM Midwest Regional Chapter Meeting, St. Charles, IL
	1995	<i>"Resistance Training and Immune Function in Elderly Women"</i> ACSM National Meeting, Minneapolis, MN
	1995	<i>"Resistance Training and Immune System Function of Young Men"</i> ACSM National Meeting, Minneapolis, MN
	1995	<i>"Shoulder Injury in Baseball Players"</i> AOASM Annual Meeting, Orlando, FL
	1995	<i>"Lumbosacral Spine Imaging Workshop"</i> AOASM 21st Century and Solutions in Osteopathic Medicine, Las Vegas, NV
	1994	<i>"Heat Illness: Football"</i> ACSM National Meeting, Indianapolis, IN
Feb	1994	<i>"Natural Cell-Mediated Cytotoxicity and Lymphocyte Mitogenesis Following a 24 Hour Road Race"</i> ACSM Winter Conference, Boyne Falls, MI
Feb	1994	<i>"Rhabdomyolysis induced acute renal failure in an ultra-endurance athlete presenting as an upper gastrointestinal bleed"</i> ACSM Annual Meeting, Boyne Falls, MI
Feb	1994	<i>"Psychological and Endocrine Responses to a 24 Hour Road Race"</i> Fahlman M, Flynn MG, Brolinson PG, et al. ACSM Annual Meeting. Boyne Falls, MI
Feb	1994	<i>"The Effects of Excessive Training and Detraining on Testicular Function"</i> Midwest ACSM Winter Conference, Boyne Falls, MI
Feb	1994	<i>"Cross Training on Indices of Training Stress and Performance"</i> Midwest ACSM Winter Conference, Boyne Falls, MI
Feb	1994	<i>"Mood State and Subjective Responses to a 24 hour race"</i> Fahlman M, Flynn MG, Brolinson PG et al. Midwest ACSM Winter Conference. Boyne Falls, MI
Apr	1993	<i>"Cold Weather Exercise"</i> AOASM Annual Meeting, New Orleans, LA
	1993	<i>"Cross Training: Indices of Training Stress and Performance"</i> ACSM National Meeting, Indianapolis, IN
	1993	<i>"Cutting Edge Diagnostic Techniques" Session Chair</i> AMSSM Clinical Conference, Sun Valley, ID
Apr	1993	<i>"Roundtable Discussion: Sports Medicine Certification"</i> AOASM Clinical Conference, New Orleans, LA
	1993	<i>"Strength Training in Sports"</i>

August 27, 2015

		Family Practice Review and Advanced Trauma Life Support Course. Tantara Resort, Lake of the Ozarks, MO
	1993	<i>"The Thoracolumbar Spine in Sports"</i>
Feb	1993	The Ohio Athletic Trainers' Association, 9th Annual Symposium. Toledo OH <i>"The Responses of Lymphocyte Subpopulations and Selected Hematological Parameters to a 24 Hour Race"</i>
Feb	1993	Midwest ACSM Annual Meeting, Boyne Falls, MI <i>"Lymphocyte Mitogenesis and Natural Cell-Mediated Cytotoxicity Following a 24-Hour Run"</i>
Feb	1993	Midwest ACSM Winter Conference, Boyne Falls, MI <i>"Mood State and Subjective Responses to a 24-Hour Race"</i>
	1992	Midwest ACSM Winter Meeting, Boyne, MI <i>"Cycling Injuries: An Old Sport on the Rise"</i>
Feb	1992	AOASM Clinical Conference, Colorado Springs, CO <i>"Excessive Training and Foot Impact Shock in Competitive Distance Runners"</i>
	1992	ACSM National Meeting, Dallas, TX <i>"Hormonal responses to excessive training: Influence of cross Training"</i>
	1992	ACSM Annual Meeting, Dallas, TX <i>"Immune System Responses to Excessive Training: Influence of Cross Training"</i>
Nov	1992	ACSM Midwest Chapter Winter Meeting, Boyne Falls, MI <i>"Mood State and Subjective Responses to a 24 Hour Race"</i>
	1992	ACSM Annual Meeting, Dallas TX <i>"Increased Training and Mood States: Influence of Cross Training"</i>
	1991	ACSM National Meeting, Dallas TX <i>Biomechanical Evaluation and Rehabilitation Session Chair</i>
	1991	AOASM Clinical Conference, Boston, MA <i>Program Chairman</i>
	1989	AOASM Conference, (Held in conjunction with Boston Marathon). Boston, MA <i>"An Approach to Diagnosis and Management of Some Common Running and Jumping Injuries"</i>
		AOA Convention, Las Vegas, NV

**Clinical Site Teaching, College and Settings:**

2004-		<b>Medical Director</b> Primary Care Sports Medicine Fellowship Edward Via College of Osteopathic Medicine and Virginia Tech, Blacksburg, VA
2009-		<b>Professor</b> Family Practice and Sports Medicine Edward Via College of Osteopathic Medicine, Blacksburg, VA
2005-		<b>Adjunct Professor, Mechanical Engineering</b> Virginia Polytechnic Institute and State University - Blacksburg, VA
2002- 2009		<b>Associate Professor</b> Family Practice and Sports Medicine Edward Via College of Osteopathic Medicine, Blacksburg, VA
1984- 2002		<b>Adjunct Clinical Professor of Family Practice</b> Ohio University College of Osteopathic Medicine Ohio University, Athens, OH

August 27, 2015

1993-	2002	<b>Clinical Assistant Professor</b> Department of Orthopedic Surgery, School of Medicine Medical College of Ohio, Toledo, OH
1990-	2002	<b>Adjunct Professor</b> College of Health Promotion and Human Services University of Toledo, Toledo, OH
1993-	2002	<b>Co-Medical Director</b> Primary Care Sports Medicine Fellowship The Toledo Hospital/ProMedica Health System, Toledo, OH
1986-	2002	<b>Clinical Preceptor for Family Practice and Sports Medicine</b> W.W. Knight Family Practice Residency The Toledo Hospital, Toledo, OH

**Guest Speaker or Lecturer:**

Sep	2014	<i>"Grand Rounds: Concussion"</i> , Ohio State
Feb	2014	<i>"OMM FP Board Review"</i> , Danville Regional Medical Center, Danville, VA
Sep	2013	<i>"OMM for Upper Extremities"</i> , Danville Regional Medical Center, Danville, VA
Mar	2012	College-Wide Speaking engagement, College of Charleston, Charleston, SC
Jan	2011	<i>"Exercise is Medicine"</i> AARP Chapter Meeting, Blacksburg, VA
Sep	2009	<i>"Experiences as an Olympic Physician &amp; Helmet Safety"</i> Roanoke, VA
Sep	2009	<i>"The Biomechanical Basis for Mild Traumatic Brain Injury"</i> SW VA Governor's School, VA
Jul	2008	<i>"The NSAID Debate: Exploring the Risks and Benefits"</i> Lebanon, VA
Mar	2008	<i>"The NSAID Debate: Exploring the Risks and Benefits"</i> Roanoke, VA
Mar	2008	<i>"Arthritis Pain and Inflammation in Sports Medicine"</i> Bristol, VA
Mar	2008	<i>"Arthritis Pain and Inflammation in Sports Medicine"</i> Pulaski, VA
Feb	2008	<i>"Arthritis Pain and Inflammation in Sports Medicine"</i> Christiansburg, VA
Feb	2008	<i>"Arthritis Pain and Inflammation in Sports Medicine"</i> Blacksburg, VA
Jul	2007	<i>"Arthritis Pain and Inflammation in Sports Medicine"</i> Christiansburg, VA
Mar	2007	<i>"Meeting the Needs of Patients with Osteoarthritis: Focusing on the Effectiveness and Safety of Treatment Modalities"</i> Continuing Medical Education, Dearborn, MI
Mar	2007	<i>"Meeting the Needs of Patients with Osteoarthritis: Focusing on the Effectiveness and Safety of Treatment Modalities"</i> Continuing Medical Education, Cincinnati, OH
Feb	2007	<i>"Meeting the Needs of Patients with Osteoarthritis: Focusing on the Effectiveness and Safety of Treatment Modalities"</i> Continuing Medical Education, Cleveland, OH
Apr	2005	<i>"New Trends in Sports Medicine"</i> Portsmouth Academy of Medicine, Norfolk, VA
May	2004	<i>"The Osteopathic Approach to the Patient"</i> Roanoke Carilion Medical Center. Roanoke, VA
May	2004	<i>"Pain Management in Sports"</i> and <i>"Sports Psychology: What Works and Why"</i> Philippine Medical Society Spring Meeting, Hampton Roads, VA
Mar	2004	<i>"Pain Management in Sports"</i> Hampton Roads, VA
Mar	2004	<i>"Respiratory Infection Resistance and Rational Therapy"</i> Smyth County Medical Society Meeting, Wytheville, VA

August 27, 2015

Jan	2004	<i>"Pain Management in Sports"</i> Lynchburg, VA
Jan	2004	<i>"Evaluation and Treatment of Respiratory Infections"</i> Bluefield Regional Medical Center, Bluefield, WV
Sep	2003	<i>"The Pre-participation Sports Physical"</i> Halifax Regional Hospital Medical Staff Meeting, Halifax, VA
Sep	2003	<i>"Pain Management in Sports"</i> Appomattox, VA
Sep	2003	<i>"Pain Management in Sports"</i> Danville-Pittsylvania County Medical Society Meeting, Danville, VA
Sep	2003	<i>"Pain Management in Sports"</i> Mercer County Medical Society Meeting Bluefield Regional Medical Center, Bluefield, WV
May	2003	<i>"SI Dysfunction in Sports"</i> Carilion Roanoke Memorial Hospital, Roanoke, VA

**Current Research and Funding:**

2015-2020	Role: <b>Co-Investigator</b> Agency: NIH 1R01NS094410-01A1 Title: Biomechanical Basis of Pediatric mTBI due to Sports Related Concussion Total Award: \$3,306,869
2014-2017	Role: <b>Co-Investigator</b> Agency: NCAA-DOD joint initiative Title: NCAA-DOD Advanced Research Core: Concussion Study Total Award: \$651,513
2013-	Role: <b>Principal Investigator</b> Agency: Banyan Biomarkers, Department of Defense Title: <i>A Prospective Clinical Evaluation of Biomarkers of Traumatic Brain Injury</i> Total Award: \$248,625, 150 patients (DOD #W81XWH-10-C-0251)
2011-	Role: <b>Co-Investigator</b> Title: <i>Characterizing head impact with structural and functional magnetic resonance imaging</i> Internal Funding: Virginia Tech Carilion Research Institute
2011- 2014	Role: <b>Co-Investigator</b> Title: <i>Head acceleration measurements in Youth Football</i> Internal Funding: VCOM/Virginia Tech Wake Forest School of Biomedical Engineering
2009- 2011	Role: <b>Co-Principal Investigator</b> Agency: Harvey Peters Research Center Foundation / Institute for Critical Technology & Applied Science. Title of Grant: <i>Chemosensory Evaluation of Training and Oxidative Stress in Runners</i> Amount of Award: \$50,000
2007- 2012	Role: <b>Lead Investigator</b> Agency: Simbex NIH 1 R01 HD48638 Title of Grant: <i>Biomechanical Basis of Mild Traumatic Brain Injury</i> Amount of Award: Total Award \$2.3 million (5 years 3 sites) Annual Award \$46,162

**Completed Research Support:**

2007- 2008	Role: <b>Principal Investigator</b>
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August 27, 2015

Agency: Harvey Peters Research Foundation & Foot Levelers, Inc.  
Title of Grant: *Orthotics and Dynamic Stability*  
Letter of Agreement No. 0042007  
Amount of Award: \$53,315

This study focused on evaluating the influence of foot orthotics on biomechanics associated with slip-induced fall accidents in the elderly. Our hypothesis is that differences will be observed in performance on standardized slip-and-fall task with and without orthotic devices on slip parameter outcomes (friction demand, adjusted friction utilization and slip distance), and detection and recovery factors.

2005- 2006

Role: **Co- Principal Investigator**  
Internal Funding: Virginia Tech Department of Mechanical Engineering  
Title of Grant: *The Effects of Football Neck Devices on Neck Loads*

The purpose of this study was to examine football neck collars and determine their effectiveness at preventing transient brachial plexopathy and other neck injuries due to football impacts.

2005- 2006

Role: **Co- Principal Investigator**  
Internal Funding: VCOM IRB # 2004/010  
Title of Grant: *Altered Peripheral Cytokine Profiles Associated with Heat Stress in Athletes: Identification of a Circulating Marker for Exercise Induced Endotoxemia*

This study investigated the association between ambient heat stress and the development of adverse gastrointestinal signs of exercise induced endotoxemia. Additionally, it investigated alterations in peripheral blood cytokine profiles in heat stressed athletes.

2003- 2004

Role: **Principal Investigator**  
Internal Funding: VCOM  
Title of Grant: *Measuring ankle stability to predict ankle sprains.*

This study was to help develop a method to identify athletes prone to ankle sprains by quantifying neuromechanical characteristics of the ankle.

2003- 2005

Role: **Principal Investigator**  
Internal Funding: VCOM  
Title of Grant: *Pre-competition manipulation pretreatment, injury prevalence and sports performance in college athletes.*

This study examined the potential effect of pre-competition manipulation on the prevalence of injuries sustained by collegiate football players in games during the 2003-2004 and 2004-2005 seasons.

August 27, 2015

- 2003-                    Role: **Principal Investigator**  
Internal Funding: VCOM Interdisciplinary Research Award/VT Mechanical Engineering  
Title of Grant: *Head Accelerations and Clinical Implications in Collegiate Football Players*  
Amount of Award: \$50,000
- The study outlined in this proposal examined individual and cumulative head acceleration using a state-of-the-art system for collecting real-time data.
- 1998- 1999            Role: **Co-Investigator** (Heifferon - PI)  
Internal Funding: The Toledo Hospital Research Grant  
Title of Grant: **The seated basketball put: An alternative upper body power test for adolescent males.**  
Amount of award: \$5,000
- The purpose of this study was to evaluate the seated basketball put as a safe and effective upper body power test for adolescent males.
- 1998- 1999            Role: **Principal Investigator**  
Agency: ProMedica Investigator Award, ProMedica Foundation  
Title of Grant: *Nurses' perceptions of and experiences with alternative/complementary medical therapies*  
Amount of Award: \$2,500
- The purpose of this study was to examine a national random sample of nurses' perceptions and experience with alternative/complementary medical therapies.
- 1998- 1999            Role: **Co-Investigator** (Creighton – PI)  
Agency: ProMedica Investigator Award, ProMedica Foundation  
Title of Grant: *Weight bearing exercise and bone mineral density in female athletes*  
Amount of award: \$5,000
- The purpose of this study was to attempt to determine difference in bone formation, bone resorption and bone mineral density in athletic females aged 18-25. Three impart groups were studied (high, medium & low impact) and compared to sedentary controls.
- Role: **Principal Investigator**  
Agency: Sponsored by YMCA  
Title of Grant: *Effect of Aquatic and Traditional Exercise programs on older men and women*
- The purpose of this project was to determine the effects of aquatic and traditional exercise program on the fitness level and quality of life measures of males and females over 65 years of age.

August 27, 2015

- 1997- 1999      Role: **Co-Investigator** (Jagger - PI)  
Internal Funding: The Toledo Hospital Research Grant  
Title of Grant: *The risk of spondylolysis in multi-sport athletes*  
Amount of Award: \$2,500
- The purpose of this study was to evaluate the risk of spondylolysis in high school athletes participating in multiple sports vs. single sport athletes.
- 1997- 1998      Role: **Co-Investigator** (Reeves- PI)  
Internal Funding: The Toledo Hospital Research Grant  
Title of Grant: *Effects of a pilot exercise program on fitness and health status, and counseling behavior of health care professionals.*
- The purpose of this study was to 1) assess the fitness and health status of health care providers before and after a voluntary fitness program and 2) determine if program participation increased physicians' exercise counseling behavior.
- 1995- 1999      Role: **Principal Investigator**  
Internal Funding: Toledo Hospital Research Grant  
Title of Grant: *Worksite health promotion and prevention project*  
Amount of Award: \$2,500
- The purpose of this study was to determine the impact of education and structured fitness activities on selected key health status indicators and health care utilization of hospital employees.
- 1995- 1997      Role: **Co-Investigator** (Lambert – PI)  
Agency: ProMedica Health Care Foundation  
Title of Grant: *The effect of acute submaximal exercise on suppressor cell function in normal healthy males*  
Amount of Award: \$10,000
- Multiple Sclerosis is a disease of autoimmune origin in which suppressor cell function likely has a role. The purpose of this study was to determine the effect of an acute bout of submaximal exercise on suppressor cell function in normal healthy males.
- 1995- 1997      Role: **Co-Investigator**  
Agency: AARP-ANDRUS Foundation, Washington, D.C.  
Title of Grant: *Resistance training programs for elderly women: Effects on functional capacity and selected indices of immune system function.*  
Duration of funding (year): 2 years  
Amount of Award: \$62,457
- 1995- 1997      Role: **Co-Investigator** (Tortland – PI)  
Agency: National Osteopathic Research Foundation, Educational Grants

August 27, 2015

Title: *The role of Osteopathic Manipulative Medicine in treating sprained ankles*  
Amount of Award: \$5,000

The purpose of this study was to validate the safety and usefulness of osteopathic manipulative therapy in the treatment of sprained ankles.

1995- 1996

Role: **Con-Investigator** (Flynn – PI)  
Agency: AARP & Andrus Foundation  
Title: *Resistance training for elderly women: effects on functional capacities and selected indices of immune system function*

The purpose of this study was to examine whether a single bout of resistance training alters post exercise immune system function and to determine if chronic resistance training would improve resting immune system function in elderly women.

1996

Role: **Principal Investigator**  
Agency: Toledo Hospital Research Grant  
Title of Grant: *Influence of exercise on suppressor cell function*  
Duration of funding (year): 1 year  
Amount of Award: \$4,200

1994

Role: **Principal Investigator**  
Agency: Toledo Hospital Research Grant  
Title of Grant: *Resistance training and immune system function in elderly women*  
Duration of funding (year): 1 year  
Amount of Award: \$8,000

1991

Role: **Co-Investigator** (Flynn – PI)  
Agency: United States Olympic Committee, Sports Medicine Council  
Title of Grant: *Cross training: Effects on performance and indices of immune system function.*  
Duration of funding (year): 1 year  
Amount of Award: \$18,000

1993

Role: **Co-Investigator** (Flynn – PI)  
Agency: DeArce Grant for Biomedical Research, University of Toledo  
Title of Grant: *Excessive training and testicular function*  
Duration of funding (year): 1 year  
Amount of Award: \$6,800

1991

Role: **Co-Investigator** (Flynn – PI)  
Agency: University Research and Fellowship, University of Toledo  
Title of Grant: *Immune system function: Increased training vs. cross training*  
Duration of funding (year): 1 year  
Amount of Award: \$6,800

August 27, 2015

1991                      Role: **Co-Investigator** (Flynn – PI)  
Agency: The Athletics Congress (TAC), Indianapolis, IN  
Title of Grant: *Cross Training: Effects on performance and selected indices of training stress.*  
Duration of funding (year): 1 year  
Amount of Award: \$5,000

**Publications, Peer Reviewed:**

1. Champion A, Goodwin TA, **Brolinson PG**, Were S, Prater MR, Inzana TJ. *“Prevalence and Characterization of Methicillin-Resistant Staphylococcus Aureus Isolates from Health University Student Athletes.”* Annals of Clinical Microbiology and Antimicrobials. 2014 Aug; 13:33.
2. Empson YM, Ekwueme EC, Hong JK, Paynter DM, Kwansa AL, Brown C, Pekkanen A, Roman M, Rylander MN, **Brolinson PG**, Freeman JW. *“High Elastic Modulus Nanoparticles: A Novel Tool for Subfailure Connective Tissue Matrix Damage.”* Translational Research. 2014 Jan.
3. **Brolinson PG**. *“Management of sport-related concussion: a review.”* Clin J Sport Med. 2014 Jan;24(1):89-90.
4. Rowson S, Duma SM, Greenwald RM, Beckwith JG, Chu JJ, Guskiewicz KM, Mihalik JP, Crisco JJ, Wilcox BJ, McAllister TW, Maerlander AC, Broglio SP, Schnebel B, Anderson S, **Brolinson PG**. *“Can helmet design reduce the risk of concussion in football? Technical note”* JNS. 2014 Jan 31.
5. Seimetz CN, Kemper AR, Duma SM, **Brolinson PG**, et al. *“An Investigation of cranial motion through a review of biomechanically based skull deformation literature”*. IJOM. 2013 Sept;16(3):178-179.
6. Champion A, Goodwin T, **Brolinson PG**, Werre S, Akers T, Prater M and Inzana T. *“ Incidence and characterization of methicillin-resistant Staphylococcus aureus isolates from healthy university student athlete”*. Epidemiology and Infection. Submitted – Publication Pending.
7. Beckwith JG, Greenwald RM, Chu JJ, Crisco JJ, Rowson S, Duma SM, Broglio SP, McAllister TW, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, **Brolinson PG**, Collins MW. *“Timing of Concussion Diagnosis is Related to Head Impact Exposure prior to Injury”*. Med Sci Sports Exerc. 2013 Apr;45(4):747-54.
8. Beckwith JG, Greenwald RM, Chu JJ, Crisco JJ, Rowson S, Duma SM, Broglio SP, McAllister TW, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, **Brolinson PG**, Collins MW. *“Head Impact Exposure Sustained by Football Players on Days of Diagnosed Concussion”*. Medicine and Science in Sports and Exercise, 2012; Med Sci Sports Exerc. 2013 Apr;45(4):737-46.
9. Duhaime AC, Beckwith JG, Maerlander AC, McAllister TW, Crisco JJ, Duma SM, **Brolinson PG**, Rowson S. *Spectrum of acute clinical characteristics of diagnosed concussions in college athletes wearing instrumented helmets.* J Neurosurg, 117:1092–1099, 2012.
10. **Brolinson PG**, Smolka M, Rogers M, Sukpraput S, Goforth M, Tilley G, Doolan KP. *Precompetition manipulative treatment and performance among Virginia Tech athletes during 2 consecutive football seasons: a preliminary, retrospective report.* J Am Osteopath Assoc. 2012;112(9):607-615.
11. McAllister TW, Flashman LA, Maerlander AC, Greenwald RM, Beckwith JG, Tosteson TD, Crisco JJ, **Brolinson PG**, Duma SM, Duhaime AC, Grove MR and Turco JH. *“Cognitive Effects of One Season of Head Impacts in a Cohort of Collegiate Contact Sport”*. Neuro. 2012 May 29;78(22):1777-84.

August 27, 2015

12. Rowson, S, Duma SM, Beckwith JG, Chu JJ, Greenwald RM, Crisco JJ, **Brolinson PG**, Duhaime AC, McAllister TW and Maerlander AC. "Rotational head kinematics in football impacts: An injury risk function for concussion". Ann Biomed Eng. 40:1-13, 2012.
13. Doolan AW, Day DD, Maerlander AC, Goforth M, **Brolinson PG**. "A Review of Return to Play Issues and Sports-Related Concussion". Ann Biomed Eng. 40:106-113, 2012.
14. Freeman JW, Empson YM, Ekwueme EC, Paynter DM, **Brolinson PG**. "Effect of prolotherapy on cellular proliferation and collagen deposition in MC3T3-E1 and patellar tendon fibroblast populations. Transl Res. 2011 Sep; 158(3): 132-9.
15. Crisco J, Fiore, Beckwith J, Chu J, **Brolinson PG**, Duma SM, McAllister TW, Duhaime AC, Greenwald RM. "Frequency and Locations of Head Impact Exposures in Individual Collegiate Football Players". JATA. 2010 Dec; 45(6).
16. Rowson S, **Brolinson PG**, Goforth M, Dietter D, Duma SM. "Linear and angular head acceleration measurements in collegiate football". J Biomech Eng. 2009 Jul; 131(6):061016.
17. Rowson S, Goforth MW, Dietter D, **Brolinson PG**, Duma SM. "Correlating cumulative sub-concussive head impacts in football with player performance-biomed 2009". Biomed Sci Instrum. 2009 Feb; 45:113-8
18. Rowson S, McNeely DE, **Brolinson PG**, Duma SM. "Biomechanical analysis of football neck collars." Clin J Sport Med, 2008 Jul; 18(4):316-21.
19. **Brolinson PG**, McGinley S, Kerger S. "Osteopathic Manipulative Medicine and the Athlete". Curr Sports Med Rep. 2008 Feb; 7(1):49-56.
20. **Brolinson PG**, McGinley S. "Autoimmune Hepatitis and Splenomegaly Commentary". Clin J Sports Med. 2008 Jan; 18(1):96.
21. **Brolinson PG**, Elliott, D. "Exercise and the Immune System". Clin J Sports Med, 2007 Jul; 26(3):311-9. Review.
22. Duma SM, Kemper AR, McNeely DM, **Brolinson PG**, Matsuoka F. "Acquiring Non-Censored Rib Fracture Data During Dynamic Belt Loading". Biomed Sci Instrum. 2006 Jan; 42:476-81.
23. **Brolinson PG**, et al. "Analysis of linear head accelerations from collegiate football impacts". Curr Sports Med Rep. 2006 Feb; 5(1):23-8.
24. Manoogian S, McNeely D, Duma D, **Brolinson PG**, Greenwald R. "Head acceleration is less than 10 percent of helmet acceleration in football impacts". Biomed Sci Instrum. 2006 Jan; 42:383-8
25. Duma SM, Kemper AR, McNeely DM, **Brolinson PG**, Matsuoka F. "Biomechanical response of the lumbar spine in dynamic compression". Biomed Sci Instrum, 2006 Jan; 42:476-81.
26. Duma S, Stitzel J, Kemper A, McNally C, Kennedy E, **Brolinson PG**, Matsuoka F. "Acquiring non-censored rib fracture data during dynamic belt loading". Biomed Sci Instrum 2006 Jan; 42:148-53.
27. Bolin D, Kemper A, **Brolinson PG**. "Current concepts in the evaluation and management of stress fractures". Curr Sports Med Rep. 2005 Dec; 4(6):295-300.
28. Best TM, **Brolinson PG**. "Return to Play: the sideline dilemma". Clin J of Sport Med 2005 Nov; 15(6):403-4.
29. Best TM, **Brolinson PG** (Co-Editors). "Return to Play Thematic Issue". Clin J Sport Med 2005.
30. Duma SM, Manoogian SJ, Bussone WR, **Brolinson PG**, Goforth MW, Donnenwerth JJ, Greenwald RM, Chu JJ, Crisco JJ. "Analysis of Real-Time Head Accelerations in Collegiate Football Players". Clin J Sport Med 2005 Jan; 15(1):3-8.
31. McLoughlin T, Snyder AR, **Brolinson PG**, Pizza FX. "Sensory level electrical muscle stimulation: effect on markers of muscle injury". Br J Sports Med. 2004 Dec; 38(6):725-9.
32. Duma SM, Hansen GA, Kennedy EA, Rath AL, McNally C, Kemper AR, Smith EP, **Brolinson PG**, Stitzel JD, Davis MB, Bass CR, Brozowski FT, McEntire BJ, Alem NM, Crowley JS. "Upper Extremity

August 27, 2015

- Interaction with a Helicopter Side Airbag: Injury Criteria for Dynamic Hypertension of the Female Elbow*". Stapp Car Crash J. 2004 Nov; 48:155-76.
33. Duma S, Manoogian S, Bussone WR, **Brolinson PG**, Goforth MW, Donnenwerth JJ, Greenwald RM, Chu JJ, Crisco JJ. "Measuring Real Time Head Accelerations in Collegiate Football Players". J Proceedings ASB Conf. 2004
  34. **Brolinson PG**. "Predicting the Effects of Sports-Related Concussion in Young Athletes". Clin J Sport Med 2004 Aug; 14(4): 253.
  35. Herring SA, Bergfeld JA, Boyd JL, **Brolinson PG**, Chang CJ, Glover DW, Grana WA, Indelicato P, Johnson RJ, Kibler WB, Kraemer WJ, McNERNEY JP, PALLAY RM, Tanji JL. "The Team Physician and Conditioning of Athletes for Sports: A Consensus Statement". ACSM. 2004 Feb; 23-7.
  36. **Brolinson PG**, et al. "Nutritional Supplements as Ergogenic Aids". Patient Care, Jan 2004, 37-45.
  37. **Brolinson PG**, et al. "Pathophysiology of Pain in Sports". Curr Sports Med Rep. 2003 Dec; 2(6):310-4. Review.
  38. Anning JH, Morgan AL, **Brolinson PG**, et al. "Influence of running and cycling on hydrostatic and oncotic forces associates with plasma volume shifts". Med Sci Sports Exerc. 2002 May; 34(5):S1:S113.
  39. **Brolinson PG**. "Precompetition Manipulation: Placebo or Performance Enhancer?" Clin J Sport Med. 2003 Mar; 13(2): 69-70.
  40. **Brolinson PG**, et al. "Sacroiliac Joint Dysfunction in Athletes". Curr Sports Med Rep. 2003 Feb; 2(1):47-56. Review.
  41. Juhn MS, **Brolinson PG**, et al. "Position Statement. Violence and injury in ice hockey". Clin J Sports Med. 2002 Jan; 12(1):46-51.
  42. **Brolinson PG**, et al. "Knowing more than the score: providing sideline medical care coverage for athletic competition". JAOA. 2001 Sep; 101(9):495-6.
  43. Herring S, Bergfeld J, Boyd J, **Brolinson PG**, et al. "Sideline Preparedness for the Team Physician: A Consensus Statement". ACSM. 2001; <http://www.acsm.org/pdf/sideprep.pdf> 846-49.
  44. **Brolinson PG**, et al. "Nurses' Perceptions of Complementary and Alternative Medical Therapies". J Community Health. 2001 Jun; 26(3):175-89.
  45. **Brolinson PG**, et al. "Weight-bearing Exercise and Markers of Bone Turnover in Female Athletes". J Appl Physiol. 2001 Feb; 90(2):565-70.
  46. Herring S, Bergfeld J, Boyd J, **Brolinson PG**, et al. "The Team Physician and Conditioning of Athletes for Sports: A Consensus Statement". ACSM. 2000; <http://www.acsm.org/pdf/tpccs103101.pdf>.
  47. Hall HL, Flynn MG, Carroll KK, **Brolinson PG**, et al. "Effects of Intensified Training and Detraining on Testicular Function". Clin J Sports Med. 1999 Oct; 9(4):203-8.
  48. Carroll KK, Flynn MG, **Brolinson PG**, et al. (1999). "Training and Immune Function in Elderly Women". J Appl Physiol. 86(6): 1905-13.
  49. Hall HL, Flynn MG, Carroll KK, **Brolinson PG**, et al. "Effects of intensified training and detraining on testicular function". Clin J Sports Med. 1999 Oct; 9(4):203-8.
  50. Flynn MG, Fahlman M, Braun WA, Lambert CP, Bouillon LE, **Brolinson PG**, et al. "Effects of resistance training on selected indexes of immune function in elderly women". J Appl Physiol 1999 Jun; 86(6):1905-13.
  51. **Brolinson PG**. "Osteopathic Philosophy and Practice in Postgraduate Education". JAOA. 1998 Jun; 98(6):315.
  52. Flynn MG, Carroll KK, Hall HL, Bushman BA, **Brolinson PG**, et al. "Cross Training: Indices of Training Stress and Performance". Med Sci Sports Exerc. 1998 Feb; 30(2):294-300.

August 27, 2015

53. Flynn MG, Fahlman M, Braun WA, Lambert CP, Bouillon LE, Jeffrey KM, **Brolinson PG**, et al. "Resistance Training and Immune Function in Elderly Women". 1999 Jun;86(6):1905-13.
54. Flynn MG, Pizza FX, **Brolinson PG**. "Hormonal responses to excessive training: Influence of cross training". Int J Sports Med. 1997 Apr; 18(3):191-6.
55. Pizza FX, Flynn MG, Starling RD, **Brolinson PG**, et al. "Run training vs cross training: Influence of increased training on running economy, foot impact shock and run performance". Int J Sports Med. 1995 Apr; 16(3):180-4.
56. Pizza FX, Flynn MG, Sawyer T, **Brolinson PG**, et al. "Run Training versus Cross-Training: Effect of Increased Training on Circulating Leukocyte Subsets". Med Sci Sports Exerc. 1995 Mar; 27(3):355-62.
57. Pizza FX, Flynn MG, **Brolinson PG**, et al. "Run Training vs. Cross Training: Effects on Immune System Parameters". Med Sci Sports Exerc. 1993

#### **Publications, Non-Peer Reviewed:**

1. Rawlins, FA III, **Brolinson PG**, Tooke-Rawlins D. "The Family Physician's Role in Caring for the Patient with Traumatic Brain Injury". Osteopathic Family Physician News. 2009 Jan/Feb; 9(1):1, 6-9
2. Manoogian SJ, Duma SM, **Brolinson PG**, et al. "Measuring in situ Head Accelerations and Evaluating Clinical Outcomes in Collegiate Football Players". Proceedings of the 3<sup>rd</sup> Virginia Tech – Wake Forest University SBES Symposium. Winston-Salem, North Carolina. 2004.
3. **Brolinson PG**. "Exercise and Immune Function". Sports Med Alert. December 1999.
4. **Brolinson PG**. "Exercise: The Prevention Key for Post-Menopausal Women". American Osteopathic Association National Osteopathic Medicine Week Newsletter. 1998.
5. **Brolinson PG**, et al. "Beating the Odds of Exercise-Induced Asthma". Sports Med in Primary Care. 4(4):30-34. 1998 Apr.
6. **Brolinson PG**. "An Approach to Low Back Pain". Northwest Ohio Center for Sports Medicine, Sports Care, The Toledo Hospital. Sports Med in Primary Care. pg. 30-31. 1997 Apr.
7. **Brolinson PG**. "Health Coalition Studies Health Promotion". Managed Care Strategies 4(2):1-10. 1997 Mar.
8. **Brolinson PG**. "Achilles Injury". The Ohio Family Physician. pg. 11. 1997 Feb.
9. **Brolinson PG**. "To Stretch or Not to Stretch: The Debate Continues". Sports Med in Primary Care 2(7):52-53. 1996 Jul.
10. **Brolinson PG**. "When Snowflakes and Skiers Fall". Sports Med in Primary Care. 1995 Dec.
11. **Brolinson PG**, et al. "Shoulder Injury in Baseball". Sports Med in Primary Care. 1995 Sep.
12. **Brolinson PG**. "Patellofemoral Instability and Anterior Knee Pain". Sports Med in Primary Care. 1995 Aug
13. **Brolinson PG**. "Delayed Onset Muscle Soreness". Sports Med in Primary Care. 1995 May.
14. **Brolinson PG**. "Exercise-Induced Muscle Injury: Mechanisms, Treatment, Prevention and Motor Control". Sports Med in Primary Care. 1995 Apr.
15. **Brolinson PG**, et al. "Efficacy of Ankle Bracing". Sports Med in Primary Care. 1995 Feb.
16. **Brolinson PG**, et al. "Fluid Intake and Competition". Sports Med in Primary Care. 1995 Jan.
17. **Brolinson PG**. "Immunization in Athletes". Sports Med in Primary Care. 1995 Jan.
18. **Brolinson PG**. "Effect of Ibuprofen Use on Muscle Soreness, Damage, and Performance: A Preliminary Investigation". Sports Med in Primary Care. 1995 Jan.
19. **Brolinson PG**, et al. "Renal Failure in an Ultra-Endurance Athlete". Sports Med in Primary Care. 1995 Jan.



August 27, 2015

### **Books and Book Chapters:**

1. **Brolinson PG**, Beato G. "*Sacroiliac Pain*" Encyclopedia of Sports Medicine, Lyle Micheli ed., SAGE Publications, 2010.
2. **Brolinson PG**, Beato G. "*Piriformis Syndrome*" Encyclopedia of Sports Medicine, Lyle Micheli ed., SAGE Publications, 2010.
3. **Brolinson PG**, Beato G. "*Exercise and Immune System,*" Encyclopedia of Sports Medicine, Lyle Micheli ed., SAGE Publications, 2010.
4. Heinking K, **Brolinson PG**, Goodwin TA. "*Large Joint Injury in an Athlete*" Foundations of Osteopathic Medicine, 3rd ed., 2011 by Lippincott, Williams and Wilkins; 946-952
5. **Brolinson PG**, Rogers M. "*The Functional and Kinetic Chain Evaluation of the Hip and Pelvis*" The Hip and Pelvis in Sports Medicine and Primary Care, 2010 by Springer.
6. **Brolinson PG**, Elliott D. "*Exercise Immunology*", Clinics in Sports Med 2006
7. **Brolinson PG**. Contributing Editor, Principles of Manual Sports Medicine, 2005 by Lippincott, Williams and Wilkins.
8. **Brolinson PG**, et al. "*Chapter 28: Bicycling Injuries*", Principles of Manual Sports Medicine, 2005 by Lippincott, Williams and Wilkins; 474-484
9. **Brolinson PG**, et al. "*Osteopathic Approach to Sports Medicine*", Foundations For Osteopathic Medicine, Second Edition, 2003 by Lippincott, Williams and Wilkins; 534-550
10. **Brolinson PG**, et al. "*Principle-Centered Rehabilitation*", Principles and Practice of Primary Care Sports Medicine, 2001 by Lippincott Williams & Wilkins; 645-652.
11. **Brolinson PG**, et al. "*Anterior Metatarsalgia (Submetatarsal Head Pain)*", 5-Minute Sports Medicine Consult. Lippincott, Williams and Wilkins, 2001; 22-23.
12. **Brolinson PG**, et al. "*Sesamoid Dysfunction*". 5-Minute Sports Medicine Consult, 2001 by Lippincott, Williams and Wilkins; 288-289.
13. **Brolinson PG**, et al. "*Fracture, Lateral and Medial Malleoli*", 5-minute Sports Medicine Consult, by Lippincott, Williams and Wilkins, 2001; 116-117.

### **Abstracts:**

1. **Brolinson PG**, Rogers MBE, Rowson S, Smith E, Weber A, Trpkovski J, Griesemer B, Kruchko D. "*The Reliability of Serum Biomarker S100B as a Diagnostic Tool for Traumatic Brain Injury*". 10<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, February 2016.
2. Albrecht J, Perry L, Russell A, **Brolinson PG**. "*Ferritin and Body Composition in Division I College Athletes; A Retrospective Review*". 10<sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg VA, February 2016.
3. Ekwueme, E, **Brolinson PG**. "*Proliferative Therapy-Induced Changes in the Cellular Response of Human Tenocytes*". Biomedical Engineering Society (BMES) Annual Meeting, Tampa FL, October 2015.
4. Fino PC, **Brolinson PG**. "*Local Dynamic Stability in Single and Dual-Task Concussed Gait: Preliminary Results.*" Biomedical Engineering Society (BMES) Annual Meeting, Tampa FL, October 2015.
5. Fino PC, **Brolinson PG**, Lockhart TE, Nussbaum MA. "*Preliminary Comparison of Single and Dual-Task Turning in Recently Concussed Athletes and Matched Controls.*" 39<sup>th</sup> Annual Meeting of the American Society of Biomechanics, Columbus OH, August 2015.
6. Fino PC, Weirath MD, Soangra R, Lockhart TE, **Brolinson PG**. "*Balance Measurements of a Smartphone at the Upper Arm Compared to the Balance Error Scoring System.*" 39<sup>th</sup> Annual Meeting of The American Society of Biomechanics, Columbus OH, August 2015.

August 27, 2015

7. Fino PC, **Brolinson PG**, Lockhart TE, Nussbaum MA. *"Single and Dual-Task Turning in Recently Concussed Athletes and Matched Controls: Preliminary Results"*. 39<sup>th</sup> Annual Meeting of The American Society of Biomechanics, Columbus OH, August 2015.
8. Becker L, Fino PC, **Brolinson PG**, Griesemer B. *"Concussions increase the frequency of lower extremity sprains and strains in the first 90 days post-concussion"*. AOASM 30<sup>th</sup> Annual Clinical Conference, Philadelphia PA, April 2015.
9. Fino PC, **Brolinson PG**, Lockhart TE, Nussbaum MA. *"Non-straight gait shows greater dual-task cost than straight gait in recently concussed athletes compared to matched controls: A preliminary investigation"* American Society of Biomechanics 2015 Midwest Regional Meeting, Akron OH, February 2015.
10. Jackson J, Ekwueme E, Pekkanen A, **Brolinson PG**, Rylander MN, Freeman JW. *"Single Walled Carbon Nanohorns Modulate Extracellular Matrix Response in Tendons and Ligaments"*. BMES Annual Meeting, San Antonio TX, October 2014.
11. Weirath MD, McPherron A, Collins SP, Rogers MB, Diaz C, **Brolinson PG**. *"Surgical Repair Of Proximal Hamstring Avulsion In A Collegiate Wrestler"*. 9<sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg VA, February 2014.
12. Beckwith JG, Chu JJ, Greenwald RM, Bolander RP, Crisco JJ, Wilcox BJ, Duma SM, Rowson S, Broglio SP, McAllister TW, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, **Brolinson PG**, Collins MW. *"The Role of Cumulative Head Impact Exposure in Differentiating Head Impacts Associated with Diagnosed Concussion"*. 2014 World Congress of Biomechanics, January 2014.
13. Beckwith JG, Bolander RP, Greenwald RM, Songbai J, McAllister TW, Chu JJ, Crisco JJ, Wilcox BJ, Duma SM, Rowson S, Broglio SP, Guskiewicz KM, Mihalik JP, Anderson S, Schnebel B, **Brolinson PG**, Collins MW. *"Estimated Brain Tissue Response Following Impacts Associated With and Without Diagnosed Concussion"*. 6<sup>th</sup> Int'l Symposium on Safety in Ice Hockey, January 2014.
14. Keating MB, Rawlins J, **Brolinson PG**. *"Medical Coverage of The Greenbrier Classic PGA Tour Event"*. AOASM Annual Meeting, Colorado Springs, CO, March 2013.
15. Andrews CK, **Brolinson PG**, Sukpraput S, Engorn J, Goforth M. *"Hypertension in Division I NCAA Athletes"*. VCOM Research Day 8<sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg VA, March 2013.
16. Wilhelm A, **Brolinson PG**, Williams RT. *"Platelet-Rich Plasma Treatment for Chronic Posterior Tibial Tendon Dysfunction"*. VCOM Research Day 8<sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg VA, March 2013.
17. Sparks, NL, **Brolinson PG**, Sukpraput S, Goforth M. *"A Comparison of the Numbers of Medical Illness and Orthopedic Injury Encounters at an NCAA Division I Athletics Program"*. VCOM Research Day 8<sup>th</sup> Annual VCOM Research Recognition Day, Blacksburg VA, March 2013.
18. Thomas WD, Sukpraput S, Thomas M, Kennedy K, Freund F, Brush R, **Brolinson PG**. *"Analysis of a Neurocognitive Assessment of Varsity Division I Athletes at Pre- and Post-Concussion"*. VCOM Research Day 8<sup>th</sup> Annual VCOM Research Recognition Day, March 2013.
19. Andrews CK, **Brolinson PG**, Sukpraput S, Engorn J, Goforth M. *"Hypertension in Division I NCAA Athletes"*. AOASM Annual Meeting, Colorado Springs, CO, March 2013.
20. Wilhelm A, **Brolinson PG**, Williams RT. *"Platelet-Rich Plasma Treatment for Chronic Posterior Tibial Tendon Dysfunction"*. AOASM Annual Meeting, Colorado Springs, CO, March 2013.
21. Sparks, NL, **Brolinson PG**, Sukpraput S, Goforth M. *"A Comparison of the Numbers of Medical Illness and Orthopedic Injury Encounters at an NCAA Division I Athletics Program"*. AOASM Annual Meeting, Colorado Springs, CO, March 2013.

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22. **Brolinson PG**, Smolka M. *“Pre-competition Manipulation and Performance among Virginia Tech Football Player during the 2008-2009 Football Season Pilot Study”*. 7<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, April 2012.
23. Aldret SN, **Brolinson PG**. *“Effect of Concussion on Balance Using Force Plate Technology”*. 7<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, April 2012.
24. McCrady BM, Schafer J, Sukpraput S, **Brolinson PG**, Hovarth S, Rogers MB. *“Effectiveness of Iron Supplementation and Diet Change on Ferritin Levels Among Female Division I Athletes”*. 7<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, April 2012.
25. Waller HH, **Brolinson PG**. *“Neuroma as a Cause of Neuropathy in Runners”*. 7<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, April 2012.
26. McCrady BM, Schafer J, Horvarth S, **Brolinson PG**, Sukpraput S, Rogers MB. *“Effectiveness of Iron Supplementation and Diet Change on Ferritin Levels Among Female Division I Athletes”*. AOASM Annual Meeting, Louisville KY, March 2012.
27. Day DD, **Brolinson PG**, Rogers MB, Goforth M, Dietter D. *“Syncope – A Difficult Return to Play Decision”*. AOASM Annual Meeting, Louisville KY, March 2012.
28. Aldret SN, **Brolinson PG**. *“Effect of Concussion on Postural Stability among NCAA Division I College Athletes using IsoBALANCE 2.0 Force Plate Technology: An Analysis of VT Football Players over the 2009 and 2011 seasons”*. ACOFP Annual Meeting, Kissimmee FL, March 2012.
29. Doolan, AW, **Brolinson PG**, Rogers MB, Collins SP. *“Neck Pain in a Collegiate Wrestler”*. ACOFP Annual Meeting, San Antonio, TX, March 2011.
30. Dyer CS, **Brolinson PG**, Wennell R. *“Evaluation of Postural Stability among NCAA Division I College Athletes using IsoBALANCE 2.0 Force Plate Technology: An Analysis of VT Football Players over the 2009 and 2010 Seasons”*. AOASM Annual Meeting, Providence, RI, April 2011.
31. Dyer CS, **Brolinson PG**, et al. *“An Unusual Cause of Shoulder Pain in a Collegiate Football Player”*. AOASM Annual Meeting, Providence RI, April 2011.
32. Prom S, Roger MBE, Farmer J, **Brolinson PG**. *“Elbow Discomfort in a Female Lacrosse Athlete”*. AOASM Annual Meeting, Providence RI, April 2011.
33. Lockhart T, Yeoh H, Songra R, Haynes C, **Brolinson PG**. *“Effects of Orthotics on Dynamic Stability in the Elderly”*. BMES Annual Meeting, Hartford, CT, 2011.
34. Whysong C, Mallikarjunan K, **Brolinson PG**, et al. *“Chemosensory Evaluation of Training and Oxidative Stress in Long Distance Runners”*. 6<sup>th</sup> Annual Via Research Recognition Day, Blacksburg VA, October 2009.
35. Beckwith JG, Chu JJ, Crisco JJ, McAllister TW, Duma SM, **Brolinson PG**, et al. *“Severity of head impacts resulting in mild traumatic brain injury”*. AOASM, Las Vegas, NV, July 2008
36. Duma S, Rowson, S, Hardy W, **Brolinson PG**, et al. *“Biomechanical Basis of Mild Traumatic Brain Injury”*, AOASM, Las Vegas, NV, July 2008
37. **Brolinson PG**, et al. *“Incidence and Rate of Colonization of Community-Acquired Methicillin-Resistant Staphylococcus aureus Colonization for In-Season Collegiate Athletes”*. AOASM, April 30-May 3, 2008
38. Bolin DJ, **Brolinson PG**, et al. *“Exercise Associated Collapse-Softball”*. Med Sci Sports Exerc. 2003 May; 35(5) S1: S209.
39. **Brolinson PG**, et al. *“Lumbar Spine Injury-Football Player”*. Med Sci Sports Exerc, Official Journal of the American College of Sports Medicine. June 2000.
40. **Brolinson PG**, et al. *“Arrhythmogenic Right Ventricular Dysplasia – Basketball”*. Med Sci Sports Exerc. June 2000.
41. **Brolinson PG**, et al. *“Football-Knee Injury”*. Med Sci Sports Exerc. June 1999.
42. **Brolinson PG**, et al. *“Soccer – Low Back Pain”*. Med Sci Sports Exerc. June 1999.

August 27, 2015

43. Gunter MJ, Maccoux DA, **Brolinson PG**, et al. "Ankle Pain – Basketball". *Med Sci Sports Exerc.* 1997 May; 29(5):S-185.
44. **Brolinson PG**, et al. "Groin Pain – Football". *Med Sci Sports Exerc.* 1997 May; 29(5):S-30.
45. **Brolinson PG**, et al. "Groin Pain: Football 171". *Med Sci Sports Exerc.* 1997 May; 29(5):S30
46. Maccoux DA, Freman SC, **Brolinson PG**, et al. "Syncope – Football". *Med Sci Sports Exerc.* 29(5):S67-68. May 1997.
47. **Brolinson PG**, et al. "Resistance Training and Immune System Function of Young Men". ACSP Nat'l Meeting. 1995

**Lay Publications, Letters to Editors and Selected Media:**

Feb	2013	Collegiate Times – <i>Helmet Research aims at reducing concussions</i>
Jan	2013	WLSL Channel 10 – <i>VCOM helping train Virginia Tech Athletes for medical Careers</i>
Nov	2013	NFL Networks – <i>Health of the Game: Helmet Technology</i>
Sep	2012	Stone Phillips Reports – <i>Hard Hits, Hard Numbers: The First Study of Head Impacts in Youth Football</i> (broadcast nationally on The PBS NewsHour)
Aug	2011	Roanoke Times article – <i>The Greenbrier Announces Medical Institute Plans</i>
Jul	2011	WDBJ Channel 7 – <i>Providing Medical Care at Greenbrier "Like Herding Cats"</i>
Jul	2011	ESPN.com Page 2 article – <i>Virginia Tech Helmet Research Critical</i>
May	2011	MIT Technology Review article – <i>Images of a Hard-Hitting Disease</i>
May	2011	WLSL Channel 10 – <i>Virginia Tech ranks football helmets' concussion safety</i>
Jul	2010	WDBJ Channel 7 – <i>Volunteers keep the Greenbrier Classic on course</i>
Sep	2010	NY Times article – <i>Football Practice Seen as Starting Point to Reduce Head Injuries</i>
		NPR Morning Report – <i>Scrutiny of Concussion Risk in Football Intensifies.</i>
Nov	2010	Relaxed Fit E-Zine – <i>How do Football Players Get Concussions? They Wear Helmets, Don't They?</i>
Dec	2005	The Sports Health Highlight with Host Dr. Vincent Disabella -- <i>Concussions in Sports</i>
Mar	2004	Technology Today with Carol Jennings, NCTC TV - <i>Concussions, Head Accelerations &amp; Sports</i>
	2003	FOX Channel 5 Evening News - <i>Concussions In Sports</i>
	2003	Discovery Channel Science Segment - <i>Head Accelerations</i>
Aug	2001	Muscle and Fitness - <i>Everything in Moderation</i>
Oct	2000	Healthy Living News - <i>Back on Track with Solid Ankles</i>
Sep	2000	Healthy Living News - <i>Run, Forrest, Run!</i>
Sep	2000	The Blade. <i>There's Often a Twist in Care by Osteopath.</i>
Apr	1999	Nightline with Connie Chung - <i>Cervical Spine Trauma</i>
Aug	1998	WTOL Channel 11 - <i>Sports Performance Supplements Story</i>
Aug	1996	Shape Magazine - <i>Bikini Bottom</i>
Jun	1996	WTOL Channel 11 - <i>Sports Medicine for the Weekend Warrior</i>
Jun	1996	WTOL Channel 11 - <i>News Segment in Sports Medicine</i>
Dec	1995	WTOL Channel 11 - <i>First at Five</i>
May	1995	WTOL Channel 11 - <i>Rowing Regatta News Coverage</i>
Aug	1994	WTOL Channel 11 Sports Care Segment, <i>Accident</i>
Aug	1994	WTOL Channel 11 <i>News clip.</i>
Mar	1994	Noon News - <i>Ask the Doctor.</i>

August 27, 2015

May 1991 TV Health Break - *Exercise as Medicine*

**Local, State and National Committees:**

2007- **Board Member**, Center for Innovation in Construction Safety & Health Research, Virginia Tech  
**Member**, Graduate Medical Education Committee  
Montgomery County Regional Hospital, Christiansburg, VA  
**Member**, Continuing Medical Education Committee  
Edward Via College of Osteopathic Medicine  
**Member**, Dean's Council  
Edward Via College of Osteopathic Medicine  
**Member**, Appointment, Promotion, and Tenure Committee  
Edward Via College of Osteopathic Medicine  
**Member**, NIH Center for Complementary and Alternative Medicine Scientific Review Panel, ZAT1 SM (22) - 2010  
**Member**, NIH Center for Complementary and Alternative Medicine Scientific Review Panel, ZAT1 RB (04) – 2009  
**Member**, NIH Center for Scientific Review Somatosensory and Chemosensory Systems Study Section  
**Member**, Virginia Tech Performance and Nutrition Committee  
**Member**, Virginia Tech Substance Abuse Committee  
**Co-Chair**, Institutional Review Board and Human Subjects Committee  
Edward Via College of Osteopathic Medicine  
**Member**, Interdisciplinary Research Committee  
Edward Via College of Osteopathic Medicine  
**Past Presidents Committee**, American Osteopathic Academy of Sports Medicine

Apr 2004 **Program Committee** for Rendezvous 2004  
2004 International Sports Medicine Meeting, Vancouver, BC.

**Additional Academic and Administrative Duties/Positions:**

2014- **Editorial Board Member**  
Complementary Therapies in Medicine

2014- **Editorial Board Member**  
Journal of Science and Medicine in Sports

2009- **Editorial Board Member**  
The Journal of the American Osteopathic Association

2002- 2006 **Section Editor** for Competitive Sports and Pain Management  
Current Sports Medicine Reports

1999 - 2002 **Editorial Board Member**  
The Physician and Sports Medicine

1998 - 2004 **Associate Editor**  
Clinical Journal of Sports Medicine

1998 - 2004 **Associate Editor**  
Sports Medicine Alert

1995 - **Physician Editorial Reviewer**  
The Journal of the American Osteopathic Association

August 27, 2015

**Academic Mentoring in Graduate Research Programs:**

Dec	2015	<b>Master's Committee:</b> Jaclyn Press
Aug	2015	<b>Dissertation Committee:</b> Bethany Rowson
Feb	2013	<b>Dissertation Committee:</b> Ray Daniels <i>"Youth Football Head Accelerations"</i>
Feb	2013	<b>Dissertation Committee:</b> Peter Fino <i>"Gait Evaluation in Concussion"</i>
Apr	2012	<b>Master's Committee:</b> Christina Seimetz <i>"Cranial movement as related to craniocervical therapy and a comparison of cadaver and test dummy head trajectories in sled tests"</i>
Feb	2011	<b>Dissertation Committee Member:</b> Christan Whysong <i>"Chemosensory evaluation of training and oxidative stress in runners"</i>
Oct	2010	<b>Dissertation Committee Member:</b> Eric A. Kennedy <i>"The Development and Validation of a Biofidelic Synthetic Eye for the Facial and Ocular Countermeasures Safety (FOCUS) Headform"</i>
Jul	2010	<b>Dissertation Committee Member:</b> Craig P. Thor <i>"The Effectiveness of Graduated Driver Licensing in the United States"</i>
Mar	2010	<b>Dissertation Committee Member:</b> Andrew Kemper <i>"The Biomechanics of thoracic skeletal response"</i>
	2009	<b>Thesis Committee Member:</b> Christan Whysong <i>"Chemosensory evaluation of training and oxidative stress in runners"</i>
Dec	2008	<b>Dissertation Committee Member:</b> Courtney Ann Haynes <i>"Evaluation of Gait and Slip Characteristics for Adults with Mental Retardation"</i>
Aug	2008	<b>Dissertation Committee Member:</b> Qian Wang <i>"Finite Element Modeling of Occupant Injury Risk and Crash Performance of W-Beam Guardrail Barriers in Roadside Crashes"</i>
May	2007	<b>Thesis Committee Member:</b> Eric Kennedy <i>"Predicting Risk of Orbital Fracture from Baseball Impact"</i>
May	2006	<b>Thesis Committee Member:</b> David Eugene McNeely <i>"Analysis of Force-Limiting Capabilities of Football Neck Collars"</i>
May	2005	<b>Thesis Committee Member:</b> Erin L. Wilson <i>"Effects of Fatigue and Gender on Peroneal Reflexes after Ankle Inversion"</i>
Apr	2005	<b>Thesis Committee Co-Chairman:</b> Sarah J. Manoogian <i>"Analysis of Linear Head Accelerations in Collegiate Football Impacts"</i> <b>Thesis Committee Member:</b> Alison R. Snyder <i>"Effect of Monophasic High Voltage Stimulation on Markers of Muscle Injury and Inflammation"</i> <b>Dissertation Committee Member:</b> Thomas Joseph McLoughlin <i>"Neutrophil-mediated Skeletal Myotube Injury: The Contribution of Reactive Oxygen and Nitrogen Intermediates"</i> <b>Dissertation Committee Member:</b> Jonathan H. Anning <i>"Plasma Volume Shifts During Exercise: Role of Exercise Mode and Training Status on Hydrostatic and Oncotic Forces"</i> <b>Thesis Committee Member:</b> Jennifer M. Peterson <i>"Ibuprofen and Acetaminophen: Effect on Muscle Inflammation and Injury Following Eccentric Contractions"</i>

August 27, 2015

**Dissertation Committee Member:** Michael R. Heifferon

*"An Upper Body Power Test for Adolescent Males"*

**Dissertation Committee Member:** Francis X. Pizza

*"Increased training vs. cross training: Effects on immune system and performance"*

**Dissertation Committee Member:** Heather L. Hall

*"Effects of excessive training on testicular function"*

**Dissertation Committee Member:** Kathy K. Carroll

*"Influence of a resistance training program on immune system parameters in young men"*

**Dissertation Committee Member:** Carol A. Weideman

*"Resistance training and immune system function in elderly women"*

**Dissertation Committee Member:** Charles P. Lambert

*"Influence of exercise on suppressor cell function in healthy young males"*

**Service and Volunteerism:**

2012	<b>Event Physician</b> , FIS Freestyle World Cup, Deer Valley, UT
2010	<b>Medical Director</b> , USOC Performance Services Center and <b>Medical Staff Winter Olympic Games</b> , Vancouver, Canada
2010	<b>Event Physician</b> , US Olympic Freestyle Ski Team, Deer Valley, UT
2007	<b>World Championship Physician</b> , US Freestyle Ski Team, Madonna di Campiglio, Italy
2006	<b>Medical Staff</b> , Winter Olympics Games, Turin, Italy
2005	<b>Event Physician</b> , US Freestyle Ski Team, Sauze D'Oulx, Italy
2005	<b>World Championship Physician</b> , United States Freestyle Ski Team, Ruka, Finland
2004	<b>Tournament Physician</b> , Women's NCAA Basketball Sub-Regional, Blacksburg, VA
2004	<b>Tournament Physician</b> , NCAA Men's Golf, The Homestead Golf Resort, Hot Springs, VA
2004	<b>Event Physician</b> , US Freestyle Ski Team, Fernie, Canada
2004	<b>Event Physician</b> , US Alpine Ski Team, Alta-Badia, Italy
2003	<b>Event Physician</b> , US Alpine Ski Team, Yong Pyeong (Dragon Valley, South Korea)
2003	<b>Event Physician</b> , US Freestyle Ski Team, Mt. Tremblant, Canada
2003	<b>Event Physician</b> , US Alpine Ski Team, Val d'Isere and Madonna, Italy
2001	<b>Event Physician</b> , US Alpine Ski Team, Kraska Gora, Slovenia
2001	<b>Event Physician</b> , US Freestyle Ski Team, Tignes, France
2001	<b>Event Physician</b> , US Freestyle Ski Team, Deer Valley, UT
2001	<b>Medical Director</b> , Kriedel Fast-pitch Softball Tournament, Toledo, OH
2001	<b>Medical Director</b> , Senior Judo Championships, Seagate Center, Toledo, OH
2001	<b>Medical Director</b> , Junior Judo Championships, Seagate Center, Toledo, OH
2001	<b>Medical Director</b> , Go the Distance Running Camp, Toledo, OH
2001	<b>Team Physician</b> , Regional All Star Football Game, Perrysburg, High School
2000	<b>Event Physician</b> , US Freestyle Ski Team, Heavenly Valley, CA
1999	<b>Event Physician</b> , US Alpine Ski Team, Ofterschwang, Germany
1999	<b>Event Physician</b> , US Alpine Ski Team, Portillo, Chile
1998	<b>Volunteer Physician</b> , Goodwill Games, Team Physician for Gymnastics, Rhythm Gymnastics, Figure Skating, New York, NY
1998	<b>Event Physician</b> , US Freestyle Ski Team, Mount Tremblant, Quebec, Canada

August 27, 2015

1997            **Event Physician**, US Freestyle Ski Team, LaPlange, France  
1994-           **Volunteer Physician**, US Olympic Committee, Colorado Springs, CO  
1994-           **Physician-in-Residence**, US Olympic Training Center, Lake Placid, New York, NY  
1994- 1996      **Volunteer Physician**, Ironman World Triathlon Championship, Kona, HI  
1994- 1999      **Medical Director**, MAC Basketball Championship, Seagate Center, Toledo, OH

**Other Event Coverage:**

**Medical Director**, Ohio/Michigan 5K/10K Run and Marathon, Toledo, OH  
**Medical Director**, Jeremy Lincoln Football Camp, University of Toledo, Toledo, OH  
**Medical Director**, Jimmy Jackson Basketball Camp, University of Toledo, Toledo, OH  
**Medical Director**, Toledo Classic 10K, Toledo, OH  
**Medical Director**, Race for the Cure, 5K and 10K, Toledo, OH  
**Medical Director**, Toledo Regatta, Toledo, OH  
**Medical Director**, Junior A and Junior B National Hockey Tournament, Toledo, OH  
**Medical Director**, Glass City Marathon, Toledo, OH  
**Medical Director**, US Track and Field 24-Hour Run National Championship, Toledo, OH  
**Medical Director**, Mad Anthony River Rally Bike Event, Perrysburg, OH  
**Co-Medical Director**, Ohio State Games, Toledo, OH  
**Team Physician**, US Volleyball Association National Championship, Toledo, OH  
**Team Physician**, US Volleyball Association Junior Olympics, Toledo, OH  
**Team Physician**, World Cup Wrestling Championships, Toledo, OH