

CURRICULUM VITAE

REED FERBER

Ph.D., CAT(C), ATC

Associate Professor

Faculties of Kinesiology and Nursing

Director: Running Injury Clinic

AHFMR Population Health New Investigator

Faculty of Kinesiology

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University of Calgary

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PERSONAL INFORMATION

Name: Reed Ferber

Place of Birth: Calgary, Canada

Date of Birth: September 22, 1970

Nationality: Canadian

EDUCATION

- 2001 Ph.D. University of Oregon, Eugene, Oregon Biomechanics
- 1998 M.S. University of Oregon, Eugene, Oregon Sports Medicine
- 1993 B.P.E. University of Calgary, Calgary, Alberta Physical Education

PROFESSIONAL EXPERIENCE

- 2011 - present **Associate Professor**
Faculties of Kinesiology and Nursing, University of Calgary, Canada
- 2008 - present **Research Associate**
Institute of Sport and Recreation Research New Zealand
- 2007 - 2011 **Assistant Professor**
Faculties of Kinesiology and Nursing, University of Calgary, Canada
- 2005 - 2007 **Adjunct Assistant Professor**
Faculty of Kinesiology, University of Calgary, Canada
- 2004 - present **Director: Running Injury Clinic**
Faculty of Kinesiology, University of Calgary, Canada
- 2003 - 2004 **Post-Doctoral Research Fellow**
Faculty of Kinesiology, University of Calgary, Canada
- 2001 - 2003: **Post-Doctoral Research Fellow**
Department of Physical Therapy, University of Delaware
- 1999 - 2000: **Instructor of Sports Medicine**
Department of Exercise and Sport Science, Oregon State University
- 1995 - 2001: **Graduate Teaching Fellow**
Department of Exercise and Movement Science, Univ. of Oregon
- 1994 - 1995: **Head Athletic Therapist / Head of Basketball Operations**
Calgary Outlaws Professional Basketball, Canada

PROFESSIONAL MEMBERSHIPS / CERTIFICATIONS

- Canadian Athletic Therapists Association (certified CAT(C) 1997)
- National Athletic Trainers Association (certified ATC 1997)

Title: Risk Factors Associated with Running-Related Musculoskeletal Injuries
Funding Agency: AI:HS Collaborative Research Innovation Opportunity Project
Role: Principal Investigator
Date: November 1, 2012 - October 31, 2015 (in review)
Amount: \$741,672

Title: The Run RIPPED Study: Running Injury Prevention & Prediction Database
Funding Agency: Orthopaedic Research UK
Role: Co- Investigator
Date: August 1, 2012 - September 30, 2014 (in review)
Amount: \$127,000 (£80,000.00)

Title: Real-time Feedback Device and Software for Gait Retraining in Patients with Knee Osteoarthritis
Funding Agency: CIHR Collaborative Health Research Program
Role: Principal Investigator
Date: November 1, 2012 - October 31, 2015 (in review)
Amount: \$450,000

Title: Research and Development for 3D Gait Analysis Technology
Funding Agency: Global Commerce Support Program - Going Global Innovation Travel Grant
Role: Principal Investigator
Date: April 15-27, 2012
Amount: \$9,469

Title: Accelerometer detection of running kinematics features associated with iliotibial band pain.
Funding Agency: Auckland University of Technology (AUT) Contestable Research Fund (FHES)
Role: Co-Investigator
Date: May 2012 - April 2013
Amount: \$33,940 (\$0 Direct funding)

Title: Validating Plantar Pressure Measurements from a Pressure-Sensing Orthotic Insole: with Industry Partner Orpyx Inc.
Funding Agency: Mitacs - Accelerate Program
Role: Principal Investigator
Date: March 2012 - August 2012
Amount: \$15,000 Direct funding

Title: Functional imaging of joint pain in hip impingement and OA.
Funding Agency: AHFMR Osteoarthritis Team Grant: Inter/Intra Pilot Project
Role: Co- Investigator
Date: Jan 2012 - Sept 2012
Amount: \$10,500 total: \$3,000 Direct funding

Title: The use of real time feedback in the rehabilitation of knee OA: effects on pain, function and disease severity.
Funding Agency: AHFMR Osteoarthritis Team Grant: Inter/Intra Pilot Project
Role: Principal Investigator
Date: Jan 2012 - Sept 2012

Amount: \$24,000 total: \$20,000 Direct funding

Title: Faculty Travel Grant: IOC World Conference on Prevention of Injury & Illness in Sport: Monte-Carlo, Principality of Monaco

Funding Agency: University of Calgary: Research Grants Committee

Role: Principal Investigator

Date: April 7-9, 2011

Amount: \$1372

Title: Pathomechanics and rehabilitation of running-related musculoskeletal injuries

Funding Agency: Running Injury Clinic Inc.

Role: Principal Investigator

Date: Oct 2010 - Sept 2011

Amount: \$168,000 Direct funding

Title: The effect of hip stabilizer muscle strengthening on pain and disability for patients with non-specific low back pain: an outcome-based RCT

Funding Agency: Workers Compensation Board -Alberta

Role: Principal Investigator

Date: Oct 2010 - Oct 2012

Amount: \$86,000 Direct funding (\$43,000/yr)

Title: Commercialization of 3D gait analysis technology for use in a clinical setting

Funding Agency: Alberta Ingenuity Fund, Commercialization Associates Program

Role: Principal Investigator

Date: June 2010 - June 2012

Amount: \$124,000 Direct funding (\$62,000/yr)

Title: The role of orthotic devices for treatment of running-related injuries.

Funding Agency: SOLE (Industry Partnership)

Role: Principal Investigator

Date: Jan 2010 - Dec 2014

Amount: \$450,000 Direct funding (\$112,500/yr)

Title: Development of 3D gait analysis technology for use in a clinical setting

Funding Agency: Alberta Ingenuity Fund, r&D Associates Program

Role: Principal Investigator

Date: Nov 2009 - Nov 2011

Amount: \$124,000 Direct funding (\$62,000/yr)

Title: Pathomechanics and rehabilitation of running-related musculoskeletal injuries

Funding Agency: Running Injury Clinic Inc.

Role: Principal Investigator

Date: Oct 2009 - Sept 2010

Amount: \$134,500 Direct funding

Title: Optimal rehabilitation protocols for the treatment of patellofemoral pain syndrome: an outcome-based RCT multi-centered study

Funding Agency: National Athletic Trainers Association: Research and Education Foundation Outcomes Grant Program

Role: Principal Investigator

Date: Jan 2009 - Jan 2013

Amount: \$476,833 total: \$219,205 Direct funding (\$54,800/yr)

Title: The role of orthotic devices in the treatment of tibialis posterior tendinopathy.

Funding Agency: SOLE (Industry Partnership)
Role: Principal Investigator
Date: Dec 2008 - Dec 2009
Amount: \$39,996 Direct funding

Title: Pathomechanics and rehabilitation of running-related musculoskeletal injuries
Funding Agency: Running Injury Clinic Inc.
Role: Principal Investigator
Date: Oct 2008 - Sept 2009
Amount: \$64,650 Direct funding

Title: The relationship between patellofemoral pain syndrome, gait biomechanics, and muscular strength
Funding Agency: Alberta Heritage Foundation for Medical Research: Population Health New Investigator Award
Role: Principal Investigator
Date: July 2008 - July 2015
Amount: \$325,000 Direct funding (\$108,440/yr Y1-Y3) + salary support (\$110,000/yr)

Title: Creating Bone and Joint Health from the Bedside to the Bench and Back Again - 'Designer Therapies' to Reduce the Burden of Osteoarthritis (OA) - from Mechanisms to Prevention: Real-time feedback to restore gait mechanics for mild-to-moderate knee OA patients: a randomized clinical trial.
Funding Agency: Alberta Heritage Foundation for Medical Research Team Grant
Role: Co-Investigator
Date: July 2008 - July 2012
Amount: \$5,067,103 total: \$395,120 Direct funding (\$98,780/yr)

Title: The relationship between foot structure, muscular strength, and foot biomechanics
Funding Agency: Olympic Oval High Performance Fund
Role: Principal Investigator
Date: Jan 2008 - Jan 2010
Amount: \$23,410 total: only \$11,705 Direct funding for Y1 paid out.

Title: Pathomechanics and rehabilitation of running-related musculoskeletal injuries
Funding Agency: Running Injury Clinic Inc.
Role: Principal Investigator
Date: Oct 2007 - Sept 2008
Amount: \$72,885 Direct funding

Title: The effectiveness of hip strengthening exercises in patients with knee osteoarthritis
Funding Agency: Canadian Academy of Sports Medicine
Role: Co-Investigator
Date: Sept 2007 - June 2009
Amount: \$7500 total: \$0 Direct funding

Title: Building a multidisciplinary team in adolescent Sports Injury Prevention
Funding Agency: Canadian Institutes of Health Research: Team Planning and Development Grants
Role: Co-Investigator
Date: June 2002 - June 2006
Amount: \$98,805 total: \$0 Direct funding

Title: Electromyographic response to unexpected gait perturbations

Funding Agency: Eugene Evonuk Award

Role: Principal Investigator

Date: June 2000 - June 2001

Amount: \$2500 Direct funding

Title: Effect of unexpected gait perturbation on ACL deficient subjects

Funding Agency: International Society of Biomechanics - Doctoral Award

Role: Principal Investigator

Date: June 2000 - June 2001

Amount: \$2000 Direct funding

Title: Effect of unexpected gait perturbation on ACL deficient

Funding Agency: National Athletic Trainers Association Research Education Foundation
Doctoral Research Grant

Role: Principal Investigator

Date: June 1999 - June 2001

Amount: \$2000 Direct funding

STUDENT FINANCIAL SUPPORT

- 2012 - 2013 - Talia Webber - CIHR Master's Award: Frederick Banting and Charles Best Canada Graduate Scholarships (\$17,500 + \$3000 Faculty top-up award)
- 2012 - 2015 - Ryan Leigh - Alberta Innovates: Health Solutions Clinical Fellowship (\$70,000/yr + + \$5000/yr research stipend + \$3000 Faculty top-up award)
- 2012 - Dylan Kosbar - Faculty of Graduate Studies: PhD Queen Elizabeth II Scholarship (\$10,800), Dean's Entrance Scholarship (\$6,000)
- 2012 - Alison Fyfe - University of Calgary PURE Summer Studentship: Validation and Calibration of a Novel Custom Pressure Sensing Insole Device (\$6000 - Declined)
- 2012 - Alison Fyfe - NSERC CREATE Summer Studentship: Validation and Calibration of a Novel Custom Pressure Sensing Insole Device (\$6000)
- 2012 - Shari Macdonald - Faculty of Graduate Studies: MSc Queen Elizabeth II Scholarship (\$10,800)
- 2012 - Ryan Leigh - 2012 Allan Markin Doctoral Scholarship Competition (\$5,000)
- 2012 - Shari Macdonald - AI:HS OA Team Grant MSc Studentship (\$20,000)
- 2012 - Kelsey Collins - Mitacs - Accelerate Program / Orpyx Inc. (\$15,000)
- 2011 - Ryan Leigh - Faculty of Graduate Studies: PhD Queen Elizabeth II Doctoral Scholarship (\$15,000)
- 2011 - Reginaldo Fukuchi - Alberta Association on Gerontology Scholarship (\$1000)
- 2011 - Reginaldo Fukuchi - Faculty of Graduate Studies Scholarship (\$2000)
- 2011 - Talia Webber - USRP Award: Gait asymmetry for knee OA patients (\$6000)
- 2011 - Talia Webber - PURE Award (declined): Gait asymmetry for knee OA patients
- 2011 - Reginaldo Fukuchi - Allan Markin Doctoral Scholarship Competition (\$5,000)
- 2011 - Reginaldo Fukuchi - Faculty of Graduate Studies Scholarship (\$6,175)
- 2010 - Whitney Kilback - Canadian Institutes of Health Research: Frederick Banting and Charles Best Canada Graduate Scholarships - Master's Award (\$17,500)
- 2010 - Karen Kendall - Faculty of Graduate Studies: Queen Elizabeth II Doctoral Scholarship (\$10,000)
- 2010 - Lindsay Burnett - USRP Award: Pathomechanics and Optimal Treatment of Iliotibial Band Syndrome (\$4000)
- 2010 - Brittany Benson - PURE Award: Biomechanical Effect of Semi-Custom Foot Orthoses (\$5000)
- 2009 - 2013 - Reginaldo Fukuchi - Coordenação de Aperfeiçoamento de Pessoal de

- Nível Superior - CAPES Ministério da Educação, Brazil (\$116,000)
- 2009 - Carolyn Graham - PURE Award: Differences in hip, knee, and ankle muscle stabilizer strength in subjects diagnosed with PFPS (\$5000)
- 2008 - Karen Kendall - Meredith Doctoral Award, Workers Compensation Board - Alberta (\$25,000)
- 2008 - Karen Kendall - Graduate Student Research Scholarship, Faculty of Kinesiology, University of Calgary (\$4100)
- 2008 - Lindsay Farr - USRP Award: Changes in lower extremity biomechanics following a hip muscle strengthening protocol and resultant reductions in patellofemoral pain (\$5000)
- 2008 - Christie Schmidt - USRP Award: The role of gluteus medius muscle strengthening on reducing low back pain and its effect on a positive Trendelenburg test (\$5000)

HONORS

- 2012: Teaching Excellence Award: Winner, University of Calgary
- 2011: Winner: Top 40 Under 40 - Calgary Avenue Magazine
- 2010: Teaching Excellence Award: Honorable Mention, University of Calgary
- 2009: Faculty Award of Excellence for Teaching/Research, University of Calgary
- 2009: Teaching Excellence Award: Honorable Mention, University of Calgary
- 2008: Teaching Excellence Award: Winner, University of Calgary
- 2007: Teaching Excellence Award: Nomination, University of Calgary
- 2006: Teaching Excellence Award: Winner, University of Calgary
- 2005: Teaching Excellence Award: Honorable Mention, University of Calgary
- 2004: Canadian Athletic Therapists' Association and Human Kinetics Writing Award
- 2003 Third place - Promising Young Scientist Award - International Society of Biomechanics
- 2001 Outstanding Student Research Award: Northwest Chapter of ACSM
- 2001 Finalist for the ISB Congress Scherb Award: Outstanding biomechanical research in the area of human locomotion with emphasis on clinical application
- 1999 Nominated for University of Oregon Graduate Teaching Award
- 1993 Dr. Lou Goodwin Award: Outstanding service to the University of Calgary Department of Athletics

TEACHING EXPERIENCE

University of Calgary

- KNES 259/260 - Human Anatomy & Physiology I/II
- KNES 503 - Clinical Biomechanics
- ZOOL 269 - Anatomy and Physiology for Nurses
- BMEN 309 - Anatomy and Physiology for Engineers
- KNES 261 - Human Anatomy
- KNES 593.61 - Anatomical Dissection
- KNES 503.63 - Clinical Biomechanics
- KNES 591 - Special Studies in Clinical Biomechanics Research

University of Oregon

- EMS 101 - Exercise as Medicine
- ANAT 311/312 - Human Anatomy

- ANAT 507 - Anatomical Dissection
- EMS 361 - Sports Medicine
- EMS 406 - Care and Prevention of Athletic Injuries
- EMS 609 - Graduate Advanced Clinical Anatomy
- EMS 607 - Graduate Advanced Seminar in Sports Medicine

Oregon State University

- EXSS 257 - Athletic Training Practicum - injury evaluation
- EXSS 356 - Care and Prevention of Athletic Injuries
- EXSS 357 - Athletic Training Practicum - advanced rehabilitation
- EXSS 365 - Emergency Management
- EXSS 380 - Therapeutic Modalities
- EXSS 390 - Athletic Training Practicum - advanced therapeutic exercise
- EXSS 445 - Therapeutic Exercise

INTERNAL / EXTERNAL ADMINISTRATIVE COMMITTEES

- 2012 - present: Member of the Medical and Scientific Advisory Board at Orpyx Inc.
- 2012 - present: Member of AIHS Clinician Researcher Training Review Committee
- 2012 - 2014 Member of the Strategic University Proposal and Platform Opportunity Review Team (SUPPORT) Training and Professional Development Committee
- 2011 - 2012: Member of the Kinesiology Decanal Search Committee
- 2011: Member of Killam Memorial Chair Selection Committee
- 2010 - present: Member of Campus Recreation and Athletics Committee -
- 2010 - 2011: Member of Strategic Directions Committee - Faculty of Kinesiology
- 2010 - present: Member of the Editorial Board - Prosthetics and Orthotics International
- 2010 - present: Member of the Pedorthic Research Foundation of Canada Vice-Chair for Grants
- 2010 - present: Member of the Editorial Board - Journal of Sport Rehabilitation
- 2008 - 2010: Chair of Communications: AHFMR Team Grant
- 2007 - present: Co-Chair: UC101 New Student Orientation Committee
- 2004 - 2010: Member of the NATA Research and Education Foundation: Vice Chair for Student Awards (04-07)
Vice Chair for General Grants (08-10)
- 2004 - present: Member of the Editorial Board - Journal of Athletic Training
- 2002 - 2008: Member of the CATA Exam Review Committee

MANUSCRIPT REVIEWER

- | | |
|---|---|
| • American Journal of Sports Medicine | Sports Medicine |
| • Journal of Orthopaedic Research | Journal of Sport Rehabilitation |
| • Sport Sciences and Medicine | Medicine & Science in Sports and Exercise |
| • Journal of Applied Biomechanics | British Journal of Sports Medicine |
| • Clinical Biomechanics | Clinical Journal of Sports Medicine |
| • Gait and Posture | Footwear Science |
| • Journal of Biomechanics | Journal of Orthopaedic Research |
| • Journal of Sport Science and Medicine | Journal of Athletic Training |

- Journal of Foot and Ankle Research Osteoarthritis and Cartilage
- Prosthetics & Orthotics International Sports Health

RESEARCH INTERESTS

- Identification, development, and optimization of treatment and rehabilitation protocols for walkers and runners
- Biomechanical factors related to the treatment and prevention of anterior knee pain in runners
- Biomechanical risk factors in the etiology of tibial stress fractures
- Effect of orthotics on lower extremity running mechanics
- The effect of unexpected gait perturbations in ACL deficit patients prior to and following reconstructive surgery. Ph.D. dissertation. University of Oregon
- Effect of PNF stretch techniques on trained and untrained older adults. MS thesis. University of Oregon

PUBLISHED MANUSCRIPTS (underline indicates Trainee)

1. Kendall, K., Pohl, M.B., Patel, C., Wiley, P., Emery, C.A., **Ferber, R.** (2012). Changes in Lumbopelvic Mechanics Following Ultrasound Guided Nerve Block of the Superior Gluteal Nerve. *Clinical Journal of Sports Medicine*. (in press).
2. Schnackenburg, K.E., Macdonald, H.M., **Ferber, R.**, Wiley J.P., Boyd, S.K. (2011). Bone quality and muscle strength in female athletes with lower limb stress fractures. *Medicine and Science in Sport and Exercise*. 43(11), 2110-2119.
3. Rabbito, M., Pohl, M.B., Humble, N., **Ferber, R.** (2011). Biomechanical and Clinical Factors Related to Stage I Posterior Tibial Tendon Dysfunction. *Journal of Orthopaedic & Sports Physical Therapy*. 41(10), 776-784.
4. **Ferber, R.**, Benson, B. (2011). Changes in multi-segment foot biomechanics with a heat-mouldable semi-custom foot orthotic device. *Journal of Foot and Ankle Research*. 4:18, 1-8.
5. **Ferber, R.**, Kendall, K.D., and Farr, L. (2011). First runner-up for the “Clint Thompson Award for Clinical Practice Advancement:” Changes in knee biomechanics following a hip abductor strengthening protocol for runners with patellofemoral pain syndrome. *Journal of Athletic Training*. 46(2), 142-149.
6. **Ferber, R.**, Pohl, M.B. (2011). Changes in joint coupling and variability during walking following tibialis posterior muscle fatigue. *Journal of Foot and Ankle Research*. 4(6), 1-8.
7. Fukuchi, R.K., Eskofier, B.M., Duarte, M., **Ferber, R.** (2011). Support Vector Machines for Detecting Age-Related Changes in Running Kinematics. *Journal of Biomechanics*. 44(3), 540-542.
8. Kendall, K.D., Schmidt, C.S., **Ferber, R.** (2010). The relationship between hip abductor muscle strength and the magnitude of pelvic drop in patients with low back pain. *Journal of Sport Rehabilitation*. 19, 422-435.
9. Pohl, M.B., Lloyd, C., **Ferber, R.** (2010). Can the reliability of three-dimensional running kinematics be improved using functional joint methodology? *Gait & Posture*. 32(4), 559-563.
10. **Ferber, R.**, Kendall, K.D., and McElory, L. (2010). Normative values and critical criterion for iliotibial band and iliopsoas muscle flexibility. *Journal of Athletic Training*. 45(4), 344-348.
11. Pohl, M.B., Rabbito, M., **Ferber, R.** (2010). The role of tibialis posterior fatigue on foot kinematics during walking. *Journal of Foot and Ankle Research*, 3(6), 1-8.

12. **Ferber, R.** Davis, I.S., Noehren, B., Hamill, J. (2010). Competitive female runners with a history of iliotibial band syndrome demonstrate atypical hip and knee kinematics. *Journal of Orthopaedic & Sports Physical Therapy*, 40(2), 52-58.
13. **Ferber, R.**, Sheerin, K., Kendall, K.D. (2009). Measurement error of rearfoot kinematics during running between a 100Hz and 30Hz camera. *International SportMed Journal*, 10(3), 152-162.
14. Butler, R.J., Minick, K., **Ferber, R.**, Underwood, F.B. (2009). Gait mechanics following ACL rupture: Implications for the early onset of knee osteoarthritis. *British Journal of Sports Medicine*, 43(5), 366-370.
15. **Ferber, R.**, Hreljac, A., Kendall, K.D. (2009). Suspected mechanisms in the aetiology of overuse running injuries: a clinical review. *Sports Health: A Multidisciplinary Approach*, 1(3), 242-246.
16. **Ferber, R.** (2007) The influence of custom foot orthoses on lower extremity running mechanics: Invited Review Paper. *International SportMed Journal*, 8(3), 97-106.
17. Vickers, J.N., Ronsky, J.L., Loitz-Ramage, B., Panchuck, D., Morton, B., Gotch, M., **Ferber, R.**, & Robu, I. (2006). Gaze and postural stability of elite ballet dancers, ACL-deficient and normal controls during the quiet stance and lunge. *Cognitive Processing*, 7(1), 176.
18. Milner, C.E., **Ferber, R.**, Pollard, C.D., Hamill, J., & Davis, I.S. (2006). Biomechanical Factors Associated with Tibial Stress Fracture in Female Runners. *Medicine and Science in Sports and Exercise*, 38(2):323-328.
19. Hreljac, A., **Ferber, R.** (2006). A Biomechanical Perspective of Predicting Injury Risk in Running. *International SportMed Journal*, 7(2): 98-108.
20. Hamstra-Wright, K.L., Swanik, C.B., Sitler, M.R., Swanik, K.A., **Ferber, R.**, & Ridenour, M. (2006). Gender comparisons of dynamic restraint and motor skill in children. *Clinical Journal of Sports Medicine* 16(1), 56-62.
21. Nigg, B.M., Hintzen, S., **Ferber, R.** (2005). Effect of an unstable shoe construction on lower extremity gait characteristics. *Clinical Biomechanics* 21(1):82-88.
22. **Ferber, R.**, McClay Davis, I., & Williams III, D.S. (2005). Effect of foot orthotics on rearfoot and tibia joint coupling patterns and variability. *Journal of Biomechanics* 38(3), 477-483.
23. DeLeo A.T., Dierks, T.A., **Ferber, R.**, & Davis, I.S. (2004). Lower extremity joint coupling during running: a current update. *Clinical Biomechanics* 19(10), 983-1074.
24. **Ferber, R.**, Osternig, L.R., Woollacott, M.H., Wasielewski, N.J., & Lee, J-H. (2004). Bilateral accommodations to anterior cruciate ligament deficiency and surgery. *Clinical Biomechanics* 19(2), 136-144.
25. **Ferber, R.**, McClay Davis, I., & Williams III, D.S. (2003). Gender differences in lower extremity mechanics during running. *Clinical Biomechanics* 18(4), 350-357.
26. **Ferber, R.**, Osternig, L.R., Woollacott, M.H., Wasielewski, N.J., & Lee, J-H. (2003). Gait perturbation response in anterior cruciate ligament deficiency and surgery. *Clinical Biomechanics* 18(2), 132-141.
27. **Ferber, R.**, Osternig, L.R., Woollacott, M.H., Wasielewski, N.J., & Lee, J-H. (2002). Reactive balance adjustments to unexpected perturbations during human walking. *Gait and Posture* 16(3), 238-248.
28. **Ferber, R.**, Osternig, L.R., Woollacott, M.H., Wasielewski, N.J., & Lee, J-H. (2002). Gait mechanics in chronic ACL deficiency and subsequent repair. *Clinical Biomechanics* 17(4), 274-285.
29. **Ferber, R.**, Osternig, L.R., & Gravelle, D. (2002). Effect of PNF stretch techniques on knee flexor muscle EMG activity in older adults. *Journal of Electromyography and Kinesiology* 12(5), 391-397.
30. **Ferber, R.**, Osternig, L.R., & Gravelle, D. (2002). Effect of PNF stretch techniques on trained and untrained older adults. *Journal of Aging and Physical Activity* 10(2), 132-142.

31. **Ferber, R.**, McClay Davis, I, Williams III, D.S., & Laughton, C. (2002). A Comparison of between-day reliability of discrete 3-D lower extremity variables in runners. *Journal of Orthopaedic Research* 20, 1139-1145.
32. Hreljac, A., Arata, A., **Ferber, R.**, Mercer, J., & Row, B.S. (2001). An electromyographical analysis of the role of dorsiflexors on the gait transition during human locomotion. *Journal of Applied Biomechanics* 17(4), 287-296.
33. Osternig, L.R., **Ferber, R.**, Mercer, J., & Davis, H. (2001). Effects of position and speed on joint torques and knee shear after ACL injury. *Medicine and Science in Sports and Exercise* 33(7): 1073-1080.
34. Osternig, L.R., **Ferber, R.**, Mercer, J., & Davis, H. (2000). Human hip and knee torque accommodations to anterior cruciate ligament dysfunction. *European Journal of Applied Physiology* 83(1): 71-76.

MANUSCRIPTS UNDER REVIEW

Eslami, M., Damavandi, M., **Ferber, R.** (in review). Association of navicular drop and selected lower-limb biomechanical measures during the stance phase of running. *Journal of Applied Biomechanics*

Pohl, M.B., Patel, C., Wiley, P., **Ferber, R.** (in review). Hip biomechanics and muscular strength in patients with patellofemoral osteoarthritis. *Journal of Biomechanics*.

Mills, K., Webber, T., Pohl, M.B., Park, S.K., **Ferber, R.** (in review). Lower extremity gait and muscle strength asymmetry in patients with medial compartment knee osteoarthritis. *Medicine and Science in Sports and Exercise*.

Pohl, M.B., Kendall, K.D., Patel, C., Wiley, P., Emery, C.A., **Ferber, R.** (in review). The role of experimentally reduced hip abductor muscle strength on frontal plane biomechanics during gait. *Journal of Orthopaedic Research*.

Leigh, R.J., Pohl, M.B., Lloyd, C.H., **Ferber, R.** (in review). Does Tester Experience Influence the Reliability of 3D Gait Analysis? A Comparison of the Functional and Predictive Approaches. *Gait & Posture*

Park, S.K., Pohl, M.B., **Ferber, R.** (in review). The Relationship Between Muscle Strength, Functional Scores, and Gait Biomechanics in Patients with Knee Osteoarthritis. *Arthritis Care & Research*

BOOKS

Ferber, R., Macdonald, S. (in press). Clinical Gait Analysis for Assessment of Running Injuries. Human Kinetics, Champaign, Illinois.

BOOK CHAPTERS

Chmielewski, T., & **Ferber, R.** (2004). Rehabilitation considerations for the female athlete. In: Andrews, J.R., Harrelson, G.L., & Wilk, K.E. (ed.), Physical Rehabilitation of the Injured Athlete, 3rd ed. Saunders, Philadelphia, PA. p. 315-329.

NON-REFEREED PUBLICATIONS

1. **Ferber, R.** Contributor to the Running Room Magazine bimonthly publication (July 2010 - present).
2. Ferber, R., Leigh, R.J. (2011). New Frontiers in Injury Prevention. *Vicon Inc. The Standard*, 1, 24-25.
3. **Ferber, R.** Hip to the Core. Canadian Running Magazine. Jan/Feb Issue 2009.
4. McClay Davis, I and **Ferber, R.** (2002) Gait Retraining in Runners: An Application of the VICON Real-Time System. *Vicon Inc. The Standard*, 1, 23-24.

TECHNICAL RESEARCH REPORTS

1. Nigg, B.M., **Ferber, R.**, & Gormley, T. (2004). Effect of an unstable shoe construction on lower extremity gait characteristics. Research report for Masai Switzerland.
2. **Ferber, R.**, Stefanyshyn, D.J., Weber, C., Gromley, T., & Nigg, B.M. (2004). Lister field infilled artificial turf testing. Research report for Cannon-Johnston Sport Architecture.
3. Stefanyshyn, D.J., **Ferber, R.**, Weber, C., & Anderson, B. (2004). Performance requirements for golf footwear. Research report for TaylorMade-adidas Golf.
4. **Ferber, R.**, Stefanyshyn, D.J., Uehli, K., Weber, C. & Nigg, B.M. (2003). Knee joint moments during cutting maneuvers and while running on uneven terrain in XYZ shoes. Research report for adidas International.

P U B L I S H E D ABSTRACTS

1. Collins, K.H., Fukuchi, R.K., Hettinga, B.A., **Ferber, R.** Detecting gait kinematic patterns associated with knee osteoarthritis using a support vector machine algorithm. *Medicine and Science in Sports and Exercise*, 44(5), S284.
2. Cooper, C., Kendall, K.D., Patel, C., Pohl, M.B., Wiley, P., **Ferber, R.** Changes in lumbopelvic mechanics following ultrasound guided nerve block in the superior gluteal nerve. *Medicine and Science in Sports and Exercise*, 44(5), S575.
3. **Ferber, R.** Echeverri, S., Leigh, R.J. Changes in gait biomechanics after a 6-week rehabilitation program for runners with iliotibial band syndrome. *Medicine and Science in Sports and Exercise*, 44(5), S131.
4. Pohl, M.B., Wiley, P.J., Patel, C., **Ferber, R.** Gait biomechanics and muscular strength in patients with patellofemoral osteoarthritis. *Medicine and Science in Sports and Exercise*, 44(5), S16.
5. Webber, T.R., Mills, K., Pohl, M.B., Park, S.K., **Ferber, R.** Lower extremity gait and muscle strength asymmetry in patients with medial compartment knee osteoarthritis. *Medicine and Science in Sports and Exercise*, 44(5), S15.
6. Bolgla, L., Bounds, M., Greavu, S., Rowe, S., Earl-Boehm, J., Emery, C.A., Hamstra-Wright, K., **Ferber, R.** (2013). Comparison of hip strength and core endurance in males with and without patellofemoral pain syndrome. Combined Sections of the American Physical Therapy Association Annual Meeting.
7. Kendall, K., Pohl, M.B., Patel, C., Wiley, P., Emery, C.A., **Ferber, R.** (2012). Steps towards the validation of the Trendelenburg test: The effect of experimentally reduced hip abductor muscle function on frontal plane mechanics. In Proceedings

of the Canadian Athletic Therapists Association Annual Meeting. Quebec City, Quebec.

8. Bolgla, L., Earl-Boehm, J., Emery, C.A., Hamstra-Wright, K., Ferber, R. (2011). A Comparison of Hip Strength and Core Endurance in Males and Females with a History of Patellofemoral Pain Syndrome. In Proceedings of the 2nd PFPS International Research Retreat. Ghent, Belgium.
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10. Fukuchi, R.K., Pohl, M.B., Ferber, R. (2011). Detection of running kinematic features associated with patellofemoral pain syndrome. In Proceedings of the International Society of Biomechanics Meeting. Brussels, Belgium.
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12. Leigh, R.J., Pohl, M.B., Lloyd, C.H., Ferber, R. (2011). Does tester experience influence the reliability of 3d-gait analysis? A comparison of the functional and predictive approaches. In Proceedings of the American Society of Biomechanics Annual Meeting. Long Beach, CA, USA.
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22. Fukuchi, R.K., Eskofier, B.M., Ferber, R., Duarte, M. (2010). Assessment of the

Support Vector Machine for detecting age-related changes in running mechanics. In Proceedings of the American Society of Biomechanics Annual Meeting. Providence, RI, USA.

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24. Bachand, A., Farr, L., **McElroy, L.K., Rabbito, M., Pohl, M.B., Ferber, R.** Reliability and Accuracy of a Digital Photograph Method for Measuring Arch Height Index and Foot Structure. *Journal of Athletic Training*. 45(3), S69.
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26. Lloyd, C.H., **Pohl, M.B., Ferber, R.** Reliability of gait kinematic variables from functionally determined hip, knee, and ankle joint centers. Book of Abstracts 2010 Gait and Clinical Movement Analysis Society Annual Meeting, Miami, FL, USA.
27. **Pohl, M.B.,** Lun, V., Wiley, P., **Ferber, R.** Kinematic compensation strategies in patient with medial compartment knee osteoarthritis. Book of Abstracts 2010 Gait and Clinical Movement Analysis Society Annual Meeting, Miami, FL, USA.
28. **Ferber, R.,** Farr, L., **Kendall, K.D.** (2010). The relationship between hip abductor strength and knee genu valgum for patients with PFPS following a strengthening protocol. *Journal of Orthopaedic & Sports Physical Therapy*. 40(3), A39.
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30. **Schnackenburg, K.E.,** Macdonald, H.M., **Ferber, R.,** Boyd, S.K. (2009). Bone Micro-architectural Parameters and Muscle Strength in Recreational Runners with and without Tibial Stress Fractures. 10th Alberta BME Conference, Banff, Canada
31. Best, C.S., **Ferber, R.** (2009). Comparison of three different hand-held dynamometry measurement techniques. *Journal of Athletic Training*. 44(3), S113.
32. **Pohl, M.B.,** Lloyd, C.H., Lun, V., Wiley, P., **Ferber, R.** (2009). Frontal plane lower extremity gait and muscle strength asymmetry in patients with medial compartment knee osteoarthritis and healthy controls. European League Against Rheumatism (EULAR) Book of Abstracts 2009 World Congress, June, Copenhagen, DE.
33. **Kendall, K.D.,** Schmidt, C., & **Ferber, R.** The relationship between hip abductor muscle strength and magnitude of pelvic drop following a 3 week strengthening protocol in non-specific low back pain patients. Book of Abstracts, 2009 Canadian Athletic Therapists Association National Conference, May, Vancouver, BC.
34. Butler R.J., Minick K., **Ferber R.,** & Underwood F.B. (2008). Gait mechanics following ACL rupture: Implications for the Early Onset of Knee Osteoarthritis. *Medicine and Science in Sports and Exercise*, 40(5S), 766.
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36. **Kendall K.D.,** Sheerin K., Keshmiri E., **Ferber R.** (2008) Normative database of common anatomical measures related to running injuries. *Journal of Athletic Training*, 43(3), S123.
37. **Kendall K.D., Ferber R.,** Louro, M. (2007). Proximal and distal clinical measures related to patellofemoral pain syndrome in runners. *Journal of Athletic Training*, 42(2), S114.
38. **Ferber R., Kendall K.D.** (2007). Biomechanical approach to rehabilitation of lower extremity musculoskeletal injuries in runners. *Journal of Athletic Training*, 42(2), S114.
39. Vickers, J.N., Ronsky, J.L., Loitz-Ramage, B., Panchuck, D., Morton, B., Gotch, M.,

- Ferber, R., & Robu, I. (2006). Gaze and postural stability of elite ballet dancers, ACL-deficient and normal controls during the quiet stance and lunge. *Cognitive Processing*, 7 (S5):176.
40. Ferber, R., Ronsky, J.L., von Tscherner, V., & Osternig, L.R. (2004). Neuromuscular response to unexpected perturbations in anterior cruciate ligament injured non-copers. Book of Abstracts American Society of Biomechanics, Portland, OR, USA.
41. Ferber, R., McClay Davis, I., & Hamill, J. (2003). Prospective biomechanical investigation of iliotibial band syndrome in competitive female runners. *Medicine and Science in Sports and Exercise* 35(5), s91.
42. DeLeo, A.T., Ferber, R., McClay Davis, I., & Mika, E.S. (2003). Comparison of rearfoot motion and comfort between custom and semi-custom orthotics based on arch height. *Medicine and Science in Sports and Exercise* 35(5), s237.
43. Dierks, T.A., McClay Davis, I., & Ferber, R. (2003). Gender differences in continuous joint coupling variables during running. *Medicine and Science in Sports and Exercise* 35(5), s89.
44. McClay Davis, I., Dierks, T.A., & Ferber, R. (2003). Gender differences in discrete joint coupling variables during running. *Medicine and Science in Sports and Exercise* 35(5), s89.
45. Butler, R.J., Ferber, R., & McClay Davis, I. (2003). Gender differences in lower extremity stiffness during running. *Medicine and Science in Sports and Exercise* 35(5), s89.
46. Ferber, R., Osternig, L.R., Woollacott, M.H., Wasielewski, N.J., & Lee, J-H. (2003). Bilateral accommodations to anterior cruciate ligament deficiency and reconstruction. Book of Abstracts International Society of Biomechanics, Dunedin, New Zealand.
47. McClay Davis, I., Ferber, R., Hamill, J., & Pollard, C. (2003). Rearfoot mechanics in competitive runners who had experienced plantar fasciitis. Book of Abstracts International Society of Biomechanics, Dunedin, New Zealand.
48. McClay Davis, I., Dierks, T.A., Ferber, R., & Hamill, J. (2003). Lower extremity mechanics in patients with patellofemoral joint pain: a prospective study. Book of abstracts 2003 American Society of Biomechanics, Toledo, Ohio, USA.
49. Ferber, R., McClay Davis, I., & Williams III, D.S. (2002). Orthotics alter lower extremity joint coupling: a dynamical systems approach. Book of Abstracts 2002 World Congress of Biomechanics, Calgary, Alberta, Canada.
50. McClay Davis, I., Ferber, R., Dierks, T.A., Butler, R.J., & Hamill, J. (2002). Variables associated with the incidence of lower extremity stress fractures. Book of Abstracts 2002 World Congress of Biomechanics, Calgary, Alberta, Canada.
51. DeLeo, A.T., McClay Davis, I., & Ferber, R. (2002). Custom and semi-custom orthotic devices: A comparison of rearfoot motion control and comfort. Book of Abstracts 2002 World Congress of Biomechanics, Calgary, Alberta, Canada.
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53. Osternig, L.R., Ferber, R., Mercer, J., & Davis, H. (2002). Effect of anterior cruciate ligament surgery on lower extremity joint torques and knee shear. *Medicine and Science in Sports and Exercise*, 34(1), s579.
54. Pollard, C.D., & McKeown, K.A. Hamill, J., Ferber, R., McClay Davis, I. (2002). Selected structural characteristics of female runners with and without lower extremity stress fractures. *Medicine and Science in Sports and Exercise*, 34(1), s991.
55. Ferber, R., Wasielewski, N.J., Lee, J-H., Woollacott, M.H., & Osternig, L.R. (2001). Gait perturbation response in pre and post-surgical anterior cruciate ligament subjects and healthy controls. Book of Abstracts 2001 ISB World Congress, Zurich, Switzerland.
56. Ferber, R., Wasielewski, N.J., Lee, J-H., Woollacott, M.H., & Osternig, L.R.

- (2001). Electromyographic response to unexpected gait perturbations in pre and post-surgical anterior cruciate ligament subjects and healthy individuals. Journal of Athletic Training, 36(2), s62.
57. Ferber, R., Wasielewski, N.J., Lee, J-H., Woollacott, M.H., & Osternig, L.R. (2001). Reactive balance adjustments to unexpected perturbations while walking. Medicine and Science in Sports and Exercise, 33(5), s1321.
58. Ferber, R., Osternig, L.R. (2000). Lower extremity joint adaptations in an ACL deficient male: Pre-injury to post-surgical evaluation. Medicine and Science in Sports and Exercise, 32(5), s252.
59. Osternig, L.R., Ferber, R., Mercer, J., & Davis, H. (2000). Effect of velocity and joint position on hip and knee torque and anterior tibial shear in pre-surgical ACL deficient and post-surgical subjects. Medicine and Science in Sports and Exercise, 32(5), s222.
60. Hreljac, A., & Ferber, R. (2000). The relationship between gait transition speed and dorsiflexor force production. 2000 Canadian Society for Biomechanics Conference Proceedings, Waterloo, Ontario, Canada.
61. Ferber, R., Osternig, L.R., & Neros, C. (1999). Effect of biological aging on lower extremity torque and power production in Masters class athletes. Medicine and Science in Sports and Exercise, 31(5), s385.
62. Osternig, L.R., Ferber, R., Mercer, J., & Davis, H. (1999). Muscle accommodation to Anterior Cruciate Ligament dysfunction. Journal of Athletic Training, 34(2), S-11.
63. Hreljac, A., Arata, A., Chen, S-J, Ferber, R., Keller, T.L., Mercer, J., & Row, B.S. (1999). Neurological considerations of the gait transition in humans. 1999 International Society of Biomechanics Conference Proceedings, Calgary, Alberta, Canada.
64. Ferber, R., Osternig, L.R., & Gravelle, D. (1998). Range of motion and EMG response to Proprioceptive Neuromuscular Facilitation stretch techniques in trained and untrained older adults. Medicine and Science in Sports and Exercise, 30(5), s213.
65. Osternig, L. R. and Ferber, R. (1998). Effects of aging and training on PNF stretching. Proceedings, 24th Annual Meeting of the AOSSM, Vancouver, BC, Canada; pp. 314-315.

INVITED PRESENTATIONS

1. *Keynote Address*: The Science Behind Gait Analysis and Footwear Prescription. Fleet Feet National Conference. Washington, DC. June 2012.
2. Clinical and Biomechanical Factors Associated with Running-Related Injuries. University of Calgary Honolulu Marathon Training Program Speaker Series. April, 2012.
3. Advances in 3D Gait Technology for Running Injury Prevention. Nuffield Orthopaedic Centre, Oxford University. Oxford, UK. April, 2012.
4. The Art of the Scientific Presentation: McCaig Institute Seminar Series. University of Calgary. Calgary, AB. March, 2012
5. Overview of the Running Injury Clinic: An Applied and Translational Research Laboratory. McCaig Institute Seminar Series. University of Calgary. February, 2012
6. *Keynote Address*: Efficacy of Over-the-Counter Orthoses: Current Research and Best Practice Guidelines. 2012 BioPed Annual Meeting. Toronto, ON. February 2012.
7. Visual Gait Analysis. 2012 BioPed Annual Meeting. Toronto, ON. February 2012.
8. Staying active and healthy through clinical biomechanics research. University of Calgary Emeritus Association. January 2012.
9. New Paradigms in Sustainable Research. Ohio State University: Sports Medicine

- Movement Analysis & Performance Research. Columbus, OH. November 2011.
10. The Aetiology of Running Injuries: Current Research. School of Physical Education and Sport (Escola de Educação Física e Esporte) University of Sao Paulo. November 2011.
 11. *Keynote Address*: Clinical and Biomechanical Factors Associated with Running-Related Injuries. Brazilian Sport Physical Therapy Biennial Conference (SONAFE). Maceio, Brazil. November 2011.
 12. The Science Behind Running Injury Prevention. University of Calgary, Faculty of Medicine and Cenovus Energy: Living Well to 100 Series. Calgary, AB. September 2011.
 13. Symposium Lecture: Getting to the core: Scientific evidence for core stability in sport injury prevention. 2011 IOC World Conference on Prevention of Injury & Illness in Sport. Monaco, Monte Carlo. April 2011
 14. *Keynote Address*: Biomechanical Factors Associated with Running Related Injuries. 26th Annual University of Iowa Hawkeye Sports Medicine Symposium. Iowa City IO. Dec 2010.
 15. Clinical and Biomechanical Considerations for the Assessment and Treatment of Patellofemoral Pain Syndrome. 26th Annual University of Iowa Hawkeye Sports Medicine Symposium. Iowa City IO. Dec 2010.
 16. Examination of the Hip as a Contributing Factor to Overuse Injuries. 26th Annual University of Iowa Hawkeye Sports Medicine Symposium. Iowa City IO. Dec 2010.
 17. Aetiology of Running Injuries. University of Calgary Sports Medicine Centre Clinic Rounds. December 2010.
 18. Healthy aging and pain-free walking: what research has done for us. Rotary Club of Calgary. November 2010.
 19. Development of 3D Gait Analysis for use in a Clinical Setting. The Health Research Transfer Network of Alberta (RTNA) Conference. Edmonton, Alberta. November 2010.
 20. Running Injury Free. Royal Victoria Marathon Running Expo, Victoria, BC. October 2010.
 21. *NATA Exchange Lecture*: Biomechanical Factors Associated with Running-Related Injuries. American Orthopaedic Society for Sports Medicine (AOSSM) Annual Meeting, Providence RI. July 2010.
 22. Clinical Assessment of Walking Gait Mechanics: Learning Lab. 61st NATA Annual Meeting & Clinical Symposia, Philadelphia, PA. June 2010.
 23. *Feature Presentation*: Importance of the hip abductors for the resolution of lower extremity injuries. 61st NATA Annual Meeting & Clinical Symposia, Philadelphia, PA. June 2010.
 24. *Keynote Presentation*: Biomechanical and Clinical Factors Associated With Patellofemoral Pain Syndrome. Saskatchewan Sports Medicine Council: Sports Med Saturday Symposium, Saskatoon, Saskatchewan. Oct, 2009
 25. Exercise Prescription for Patellofemoral Pain Syndrome. Saskatchewan Sports Medicine Council: Sports Med Saturday Symposium, Saskatoon, Saskatchewan. Oct, 2009
 26. The role of tibialis posterior in the control of midfoot and rearfoot mechanics. 12th Annual International PFOA Conference, Atlanta, USA. October, 2009
 27. Examination of the Hip as a Contributing Factor of Lower Extremity Overuse Injuries. 12th Annual International PFOA Conference, Atlanta, USA. October, 2009
 28. The pain in my knee is a pain in my butt. Big Rock Lecture Series, Calgary, Canada. September, 2009.
 29. Advanced Track Seminar: Evaluation and Interpretation of Running Gait. 60th NATA Annual Meeting & Clinical Symposia, San Antonio, TX. June 2009
 30. Clinical Lecture: Clinical Gait Analysis and Proper Footwear Selection. 60th NATA Annual Meeting & Clinical Symposia, San Antonio, TX. June 2009
 31. *Keynote Presentation*: The Inter-Relationship Between Hip Muscle Strength and

- Running Biomechanics. Pedorthic Association of Canada Annual Symposium. Kelowna British Columbia, April, 2009.
32. Examination of the Hip as a Contributing Factor of Lower Extremity Overuse Injuries. Pedorthic Association of Canada Annual Symposium. Kelowna, British Columbia, April, 2009.
 33. *Keynote Presentation*: Biomechanical and Clinical Factors Associated With Shin Splints and Stress Fractures. Saskatchewan Sports Medicine Council: Sports Med Saturday Symposium, Regina, Saskatchewan. March, 2009
 34. Exercise Prescription for Shin Splints and Stress Fractures. Saskatchewan Sports Medicine Council: Sports Med Saturday Symposium, Regina, Saskatchewan. March, 2009
 35. Understanding the pathomechanics of musculoskeletal injury: the inter-relationship of clinical and biomechanical factors. University of Oregon, Department of Human Physiology Graduate Lecture Series, Eugene, Oregon. January, 2009
 36. Stress Fracture Management & Treatment. 59th NATA Annual Meeting & Clinical Symposia, St. Louis, MO. June 2008
 37. Pathomechanics of patellofemoral pain syndrome: the hip-down perspective. 11th Annual International PFOLA Conference, Vancouver, BC. October, 2008
 38. Proprioceptive neuromuscular response to unexpected gait perturbation in ACL deficient individuals. 8th International Conference in Orthopaedics, Biomechanics, Sports Rehabilitation. Assisi (Perugia), Italy. November 2004
 39. Bilateral accommodations to anterior cruciate ligament during normal and perturbed gait. 8th International Conference in Orthopaedics, Biomechanics, Sports Rehabilitation. Assisi (Perugia), Italy. November 2004
 40. *Keynote Presentation*: Foot structure and biomechanics of lower extremity injuries. Sutter Heath Group Santa Cruz Seminar, Santa Cruz, CA. October 2004.
 41. Gait retraining for running relateds injuries. York University Athletic Therapy seminar. Toronto, Ontario, Canada. September, 2004.
 42. *Keynote Presentation*: Foot Orthotics: Current Research in Rehabilitation. Canadian Athletic Therapists Association Annual Meeting. Antigonish, Nova Scotia, Canada. May 2004.
 43. Factors influencing the etiology and treatment of lower extremity musculoskeletal injuries. Canadian Athletic Therapists Association Annual Meeting. Antigonish, Nova Scotia, Canada. May 2004.
 44. Neuromuscular adaptations in anterior cruciate ligament deficient individuals. Distinguished Lecture Series, UNLV Department of Kinesiology, Las Vegas, NV. March 2004.
 45. How puberty influences the biomechanics of running and landing in male and female adolescents. 7th International Conference in Orthopaedics, Biomechanics, Sports Rehabilitation. Assisi (Perugia), Italy. November 2003
 46. Influence of puberty and consequent structural alterations on anterior knee pain in young runners. 7th International Conference in Orthopaedics, Biomechanics, Sports Rehabilitation. Assisi (Perugia), Italy. November 2003
 47. Patellofemoral pain syndrome: Current trends and research in rehabilitation. Dynamic Rehabilitation Specialists Symposium. Calgary, Alberta, Canada. October 2003
 48. Prehabilitation for the endurance athlete. Clinical Workshop: National Athletic Trainers Association National Meeting. St Louis, MO. June 2003
 49. Gait accommodations to anterior cruciate ligament deficiency and surgery. School of Kinesiology and Health Science Graduate Seminar. York University, Toronto, Ontario, Canada. September 2002
 50. Bilateral accommodations to anterior cruciate ligament deficiency and surgery. Biomechanics Invitational Seminar. Las Vegas, NV, USA. March 2002.
 51. Accommodations to anterior cruciate ligament deficiency and surgery. Lane

- Athletic Trainers Association Annual Meeting. Eugene, OR, USA. March 2001.
52. Lower Extremity Joint Accommodations to Anterior Cruciate Ligament Dysfunction. Canadian Athletic Therapists Association Annual Meeting. Calgary, Alberta, Canada. May 2001.

TRAINEE/STUDENT SUPERVISION

- 2007-present: Karen Kendall (Faculty Supervisor: PhD): Validation of the Trendelenburg Test for the purpose of optimal assessment and treatment of low back pain.
- 2007: Mike Green (Committee Member: MKin): The relationship between core strength and patellofemoral pain syndrome.
- 2008-2010: Melissa Rabitto (Faculty Supervisor: MSc): Posterior Tibial Tendon Dysfunction
- 2008-2011: Mike Pohl (Faculty Supervisor: PDF): The underlying mechanics between patellofemoral pain syndrome and patellofemoral osteoarthritis.
- 2009-2010: San Kyoong Park (Faculty Supervisor: PDF): Biomarkers associated with inflammation and the progression of knee osteoarthritis.
- 2009-2011: Katharina Schnackenburg (Committee Member: MSc): Bone Micro-architectural Parameters and Muscle Strength in Recreational Runners with and without Tibial Stress Fractures.
- 2009: Blayne Hettinga (Faculty Supervisor: PDF): Development of biomechanical methodologies for automated analysis.
- 2009-2011: Shawn Allen (Committee Member: MSc): Do Components of a Physiotherapist Delivered Pre-participation Examination in Male and Female Adolescent Soccer Players Predict Acute Lower Extremity Injuries in Soccer?
- 2009-present: Bill Wannop (Committee Member: PhD): Biomechanical Model of Lower Extremity Injuries in High School Football.
- 2009-present: Reginaldo Fukuchi (Faculty Supervisor: PhD): Changes in running mechanics across the lifespan: the relationship of chronic running to the development of osteoarthritis.
- 2010-present: Whitney Kilback (Faculty Supervisor: MSc): Biomechanical variables associated with iliotibial band syndrome.
- 2010-present: Ryan Leigh (Faculty Supervisor: PhD): Biomechanical factors related to minimizing torsional foot-shoe forces for diabetics with peripheral neuropathy.
- 2011-present: Cassidy Freeman (Faculty Supervisor: MSc): Biomechanical factors associated with iliotibial band syndrome.
- 2011-present: Kelsey Collins (Faculty Supervisor: MSc): Support vector machine algorithms for detecting running-related injuries.
- 2012-present: Talia Webber (Faculty Supervisor: MSc): Determining between-day reliability of kinematic gait patterns using support vector machine algorithms

SUMMER STUDENTS AND SPECIAL PROJECTS

- 2011 - Rebecca Johnson - Societal cost of MSK injury.
- 2011 - Talia Webber - Gait asymmetry for knee OA patients
- 2010 - Angela McClintock - Commercialization and marketing strategies related to the Running Injury Clinic
- 2010 - Lindsay Burnett - Functional vs. manual calculation of anatomical joint coordinate systems
- 2010 - Lissandre Dufresne - Biomechanical factors related to lower extremity running injuries
- 2009 - Andrea Bachand - Development of a 3-dimensional motion capture system for use in a clinical setting
- 2009 - Lauren Tompkins - Biomechanical and clinical factors related to PFPS
- 2009 - Holliston Logan - HYRS Alberta Heritage Foundation for Health Research
- 2008 - Lindsay MacNeil - Normative values and critical criterion for iliotibial band and iliopsoas muscle flexibility

POPULAR PRESS INTERVIEWS / CONTRIBUTIONS (abbreviated list of 1-2 links per story)

June 2012: Globe and Mail: Strengthening beats stretching when it comes to this common running injury

<http://www.theglobeandmail.com/life/health-and-fitness/fitness/running/strengthening-beats-stretching-when-it-comes-to-this-common-running-injury/article4365074/>

June 2012: Wall Street Journal: Maybe Grass Makes You Faster

<http://online.wsj.com/article/SB10001424052702303768104577462681286183966.html>

May 2012: National Post: Stride science: Learning how the body works during a run holds injury insight

<http://life.nationalpost.com/2012/05/30/stride-science-learning-how-the-body-co-ordinates-during-a-run-holds-injury-insight/>

April 2012: Runner's World: The Shoe Believer

<http://www.runnersworld.com/article/printer/1,7124,s6-240-400--14265-0,00.html>

April 2012: Men's Health: The Men's Health Guide to Running Faster

April 2012: Montreal Gazette (blog) Barefoot, shod or minimalist- join the debate

<http://blogs.montrealgazette.com/2012/04/18/barefoot-shod-or-minimalist-join-the-debate/>

Feb 2012: Runner's World: Injury Prevention Law #1: Know Your Limits

<http://www.runnersworld.co.za/injury-prevention/health-fitness/injury-prevention-law-1-know-your-limits/>

Feb 2012: Los Angeles Times: Go ahead, run into old age

<http://www.businessmirror.com.ph/home/life/23644-go-ahead-run-into-old-age>

Feb 2012: National Post: Knack for the future: 3D gait analysis is on the cusp of redefining your run

<http://www.nationalpost.com/life/running/Knack+future+gait+analysis+cusp+redefining+your/6223826/story.html>

January 2012: LA Times: In-Your-Face Fitness: Go ahead, run into old age

<http://articles.latimes.com/2012/jan/16/health/la-he-fitness-running-joints-20120116>

December 2011: Oxford opens Run3D Clinic in cooperation with the Running Injury Clinic at the University of Calgary

<http://www.eng.ox.ac.uk/public-relations/news/london-2012-olympic-athlete-launches-new-running-biomechanics-service>

<http://blogs.people.co.uk/sam-cope/2011/12/analyse-your-running-style.html#more>

<http://www.theengineer.co.uk/sectors/medical-and-healthcare/news/3d-motion-analysis-facility-could-help-prevent-injuries/1011305.article>

<http://www.technologyreview.com/blog/helloworld/27448/>

November 2011: The Globe and Mail: Off-the-shelf orthotics offer relief of running injuries

<http://www.theglobeandmail.com/life/health/fitness/exercise/fitness-research/off-the-shelf-orthotics-offer-relief-of-running-injuries/article2225588/>

November 2011: Medical News Today: Running Injury Clinic Researchers Examine Effectiveness Of Shoe Inserts

<http://www.medicalnewstoday.com/releases/236915.php>

August 2011: Star Phoenix Saskatoon: 3D cameras help diagnose injuries

August 2011: Nelson Star: Finding the root of foot pain

http://www.bcclocalnews.com/kootenay_rockies/nelsonstar/sports/127889643.html

July 2011: Globe and Mail: Do you have the body type to run a marathon?

<http://www.theglobeandmail.com/life/health/fitness/running/training-and-technique/do-you-have-the-body-type-to-run-a-marathon/article2091748/>

July 2011: National Post: A professor's biomechanic crystal ball

June 2011: Barefoot Running - City TV Calgary Breakfast Television

<http://video.citytv.com/video/detail/1016994673001.000000/barefoot-running--june-23rd/>

May 2011: Healing your knees starts at the hips - Metro news

<http://www.metronews.ca:80/edmonton/life/article/868452--healing-your-knees-starts-at-the-hips>

April 2011: Knee bone's connected to the hip bone: Blame weak hips, not bad knees

April 2011: Macleans Magazine: Cooler runnings: A Calgary team's cutting-edge 3-D modelling system diagnoses, treats, and even predicts runners' injuries

<http://www2.macleans.ca/2011/04/20/cooler-runnings/>

April 2011: Does running really hurt your knees?

<http://www.chatelaine.com/en/article/26281--does-running-really-hurt-your-knees>

March 2011: Research Uncovers New Strategy for Injured Runners

March 2011: New machine at U of A uses 3-D tech to help runners

Jan 2011: Debunking running shoe myths

<http://www2.canada.com/calgaryherald/news/city/story.html?id=1e880837-15d1-40ce-940d-4aee06d422b7&p=2>

http://www.cbc.ca/video/#/News/TV_Shows/The_National/1233408557/ID=1770330439

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