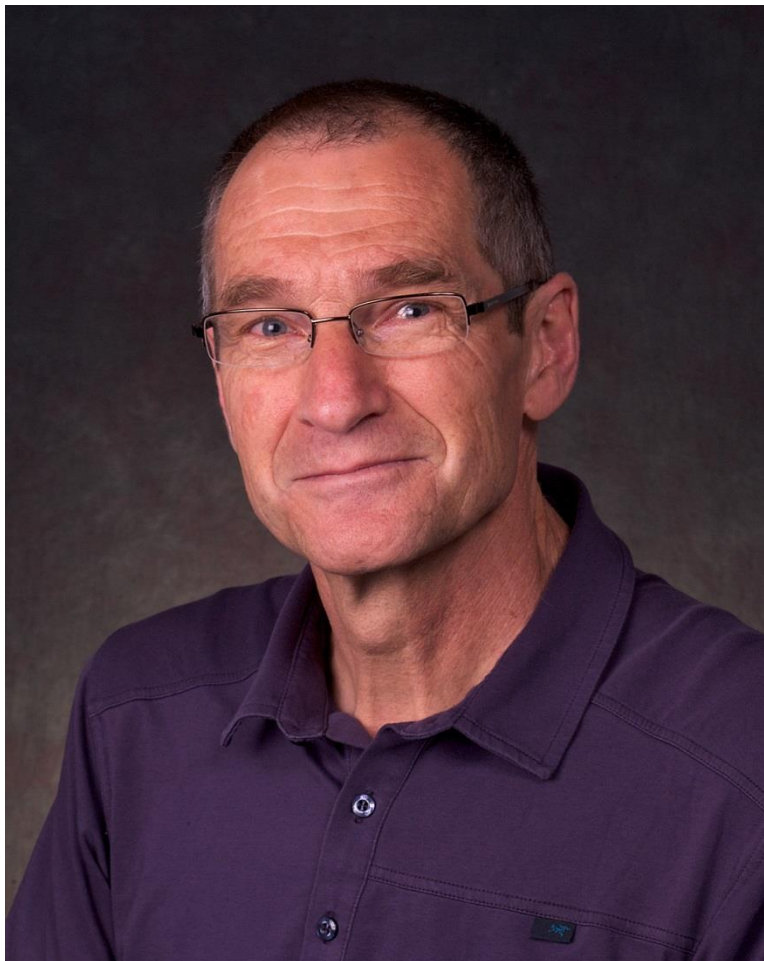


DR. WALTER HERZOG



CURRICULUM VITAE

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PERSONAL DATA

Name: Walter Herzog
Born: February 19, 1955, Leuggern, Switzerland
Citizenship: Swiss, Canadian

ACADEMIC RECORD

1971-1974 High School Baden
Graduated with Matura Diploma C (Natural Sciences Branch)

1974-1977 Federal Technical Institute Zurich
Graduated with Diploma I in Physical Education

1977-1978 Federal Technical Institute Zurich
Graduated with Diploma II in Physical Education (Biomechanics)

1979-1985 University of Iowa, Iowa City
Graduated with PhD degree in Biomechanics

1985-1987 The University of Calgary, Calgary
Postdoctoral Fellow

1987-1991 The University of Calgary, Calgary
Assistant Professor in Kinesiology

1987-1995 The University of Calgary, Calgary
Adjunct Assistant Professor in Medicine (Surgery)

1991-1994 The University of Calgary, Calgary
Associate Professor in Kinesiology

1991-2000 The University of Calgary, Calgary
Adjunct Associate Professor in Engineering (Mechanical Engineering)

1994-present The University of Calgary, Calgary
Professor in Kinesiology (Biomechanics)

1994-1995 The University of Calgary, Calgary
Acting Head, The Human Performance Laboratory

1995-2002 The University of Calgary, Calgary
Adjunct Associate Professor in Medicine (Surgery)

1997-2009 The University of Calgary, Calgary
Associate Dean Research, Faculty of Kinesiology

2000-2001 The University of Calgary, Calgary
Adjunct Professor in Engineering (Mechanical Engineering)

2001-present The University of Calgary, Calgary
Professor, Engineering (Mechanical & Manufacturing Engineering)

2001-2014 The University of Calgary, Calgary
Co-Director, Human Performance Laboratory

2001-2022 Canada Research Chair, Tier I for Cellular and Molecular Biomechanics

2002-2022 The University of Calgary, Calgary
Adjunct Professor, Cumming School of Medicine, Department of Surgery

2009-present The University of Calgary
Adjunct Professor, Faculty of Veterinary Medicine, Department of Comparative Biology and Experimental Medicine

2014-present The University of Calgary, Calgary
Director of the Human Performance Laboratory

2018 February – June, Acting Dean, Faculty of Kinesiology

2021-2023 Adjunct Professor, Federal University of Santa Catarina, Florianopolis, Brazil

2021-2022 The University of Calgary, Calgary

Currently: Associate Dean Research, Faculty of Kinesiology
The University of Calgary, Calgary
Professor, Kinesiology, Engineering, Medicine and Veterinary Medicine
Director of the Human Performance Laboratory
Canada Research Chair, Tier I for Cellular and Molecular Biomechanics
Associate Dean Research, Faculty of Kinesiology

RECENT ACCOMPLISHMENTS

2016-2019 Chairperson, 27th International Society of Biomechanics Conference hosted in Calgary in 2019
2015 Frontiers in Physiology, 11th most downloaded article among 12,500 published
2015 Inaugural Fellowship - International Society of Biomechanics

From AWARDS AND HONOURS

2021 Killam Annual Professor, University of Calgary, Killam Trust
2021 ASTech Researcher of the Year Award, Alberta Science and Technology Leadership (ASTech) Foundation, sponsored by Innovate Calgary
2021 Outstanding Reviewer, CIHR College of Reviewers, 2020 Fall Grant Competition
2021 2020 Journal of Biomechanical Engineering (JBME) Editor's Choice Paper selected by ASME Journal of Biomechanical Engineering Editorial Board for manuscript "Direct validation of model-predicted muscle forces in the cat hindlimb during locomotion"
2021 Named Award "Dr. Walter Herzog Award for Excellence in Undergraduate Research", Brazilian Society for Biomechanics
2020 1st Prize and Award for "Excellence in Basic, Clinical, and Translational Science" from the Orthopaedic Research Society for manuscript "Multiparametric MR imaging reveals early cartilage degeneration at 2 and 8 weeks after ACL transection in a rabbit model"
2020 Outstanding Reviewer, CIHR College of Reviewers, 2019 Fall Grant Competition
2018 Killam Prize in Engineering from Canada Council for the Arts for body of work in musculoskeletal biomechanics
2017 Muybridge Career Award from the International Society of Biomechanics
2017 Geoffrey Dyson Career Award from the International Society of Biomechanics in Sports
2016 Elected Honorary Member, Chilean Association for Human Movement Science
2015 Kinesiology Outstanding Supervisor Award
2015 BME GP Outstanding Supervisor Award
2015 Hero of Biomechanics, awarded by student body of International Society of Biomechanics for supervisory excellence and support of students and scientists from economically developing countries
2015 Best Paper in Biomechanics, Korean Society for Precision Engineering 2016 Fall Conference
2009-2014 Natural Sciences and Engineering Research Council CREATE Training Programme for Biomedical Engineers for the 21st Century (\$300,000/year)
2013 Induction into the Royal Society of Canada Fellowship
2013 GSA Supervisory Excellence Award Nomination (Student Nominated Finalist)
2012 Izaak Walton Killam Graduate Supervision & Mentoring Award
2011/2016 Canada Research Chair in Cellular and Molecular Biomechanics, Tier I
2011/2016 Killam Memorial Chair (2011 – 2021)
2011 American Society of Biomechanics, Elected Fellow
2009-2011 Killam Fellowship - Canada Council for the Arts
2010 Plenary Lecturer – World Congress on Biomechanics. Singapore
2010 Presidents Lecture - American College of Sports Medicine
2010 First prize, "Paper of highest public interest 2009" award, Sportorthopädie Sporttraumatologie
2009 Winner of the Faculty of Kinesiology Excellence in Teaching and Research Award

| | |
|-----------|---|
| 2009-2011 | Past President-International Society of Biomechanics |
| 2007-2009 | President-International Society of Biomechanics |
| 2006 | Canadian Society for Biomechanics, Elected Fellow |
| 2006 | Canadian Society for Biomechanics, Career Award |
| | Presentation title: Muscle Mechanics: From Society to Cell and Back |
| 2006 | Winner, ASB Borelli Award, Premier Research Award of the American Society of Biomechanics |
| | Presentation, Title: Of myosins, muscles and mechanisms of contraction |
| 2005 | Visiting Scholar, Mayo Clinic, Rochester, MN |
| 2004 | Invited Workshop on Skeletal Muscle Mechanics, American Society of Biomechanics, Portland, Oregon |
| 2004 | Steven's Visiting Scholar, University of Florida, Gainesville, FL |
| 2003 | Winner of the Inaugural Award for Excellence in Graduate Student Supervision, University of Calgary |
| 2003-2004 | President, American Society of Biomechanics |
| 2002 | Winner of the President's Circle Award for Excellence and Creativity in Scientific Research, University of Calgary |
| 2001 | Inaugural Research Excellence Award, Faculty of Kinesiology, University of Calgary, Calgary, AB |
| 1999 | Winner of the Scott Haldeman Award and 1st prize in the international free paper competition for original research at the World Conference of Chiropractic fifth Congress, Auckland, New Zealand (with E. Suter, G. McMorland, R. Bray) |
| 1999 | The Killam Resident Fellowship (for excellence in scientific research) |
| 1998 | CCA Researcher of the Year Award for Basic Research on the Mechanics of the Spine |
| 1998 | Best scientific paper in the Journal of Applied Biomechanics for 1998 (with E. Suter, R. Bray, K. DeSouza) |
| 1996 | The Killam Resident Fellowship |
| 1996 | "JCCA Award of Excellence" for manuscript which made the most significant contribution between 1993-1995 (Category: Literature Reviews) |
| 1995-1997 | President, Canadian Society for Biomechanics |
| 1997-1999 | Past President, Canadian Society for Biomechanics |
| 1995 | First prize for spinal research done by a private practitioner, Chiropractic Centennial Conference, Washington, D.C. (with G. Kawchuk) |
| 1995 | CCA Centennial Research Award Lecture, Toronto, ON |
| 1994 | Winner of the International Conference of Spinal Manipulation Basic Science Research Award (with J. Gál) |
| 1994 | Winner of the Canadian Association for Sports Medicine Research Award (with M. Maitland) |
| 1993 | Winner of the CCA Centennial Convention Research Competition |

KEYNOTE PRESENTATIONS

2021 (Total to date=96)

| | |
|---------|---|
| October | French Society for Biomechanics, St. Etienne, France (Virtual), Oct 25 <i>The three-filament sarcomere model: titin-actin-myosin interaction and force production</i> |
| August | The Science and Environmental Studies Biotechnology & Allied Sciences Symposium, Thunder Bay, OT (Virtual), August 27 <i>The many faces of knee joint osteoarthritis</i> |
| July | International Sport Sciences Conference, Lisbon, Portugal (virtual), July 21 <i>Basic muscle mechanics and selected applications in sport</i> |
| July | Society for Orthopedics and Traumatology in Sports Medicine, Basel, Switzerland, July 1 |

The role of titin in muscle contraction and active force production (virtual event)

- June King's College, London, UK, Virtual Event, Jun 16
Huxley's Missing Filament
- March 11th International Conference on Biomedical Engineering and Technology, Tokyo, Japan, Virtual Event, Mar 17
Recent observations on the molecular mechanisms of muscle contraction

2020

- September 10th International Conference on Biomedical Engineering and Technology, Tokyo, Japan, Sep 15
Titin: the forgotten filament in muscle contraction (Live virtual session)
- July 23rd Conference of the International Society for Electrophysiology and Kinesiology, Tokyo, Japan, Jul 12
Dos and don'ts in an academic scientific career (Live virtual session)

2019

- December 17th International Conference of Biomedical Engineering, Singapore, Dec 11
Reflections in muscle: the evolution of a new paradigm for muscle contraction
- July International Society of Biomechanics in Sports, Oxford, Ohio, USA, Jul 22
Of muscle force magnitude, direction and synergies in sports
- March European Conference of Science in Skiing, Vuokatti, Finland, Mar 14
Cross country skiing as a model for human movement analysis

2018

- September International Society of Biomechanics in Sports, Auckland, New Zealand, Sept 11
Keynote Panel: How to plan your research career
- July International Society of Electrophysiology and Kinesiology, Inaugural Carlo de Luca Lecture, Dublin, Ireland, Jul 1
Merging biomechanics and motor control

2017

- September European Society for Movement Analysis in Adults and Children (ESMAC), Trondheim, Norway, Sep 9
Basic muscle mechanics: from single sarcomeres to whole muscle function in health and disease
- July XXVII Congress of the International Society of Biomechanics, Brisbane, Australia, July 26
Reflections on muscle: of intuition, truth, serendipity and paradigms (Muybridge Award Lecture)
- July 23rd Congress of the European Society of Biomechanics, Seville, Spain, July 3
Do we need a new paradigm for muscle contraction?
- June 35th International Conference on Biomechanics in Sport, Cologne, Germany, June 15
From medals to muscles to molecules and back again (Dyson Award Lecture)

May 17th Congress of the Brazilian Society of Biomechanics, Porto Alegre, Brazil, May 15
Muscle Mechanics made in Brazil

May Applied Neuromechanics Congress, Porto Alegre, Brazil, May 14
The role of muscles in musculoskeletal health

February 9th Conference of the Swiss Society for Sport Science, Zurich, Switzerland, Feb 9-10
Optimizing sport performance through muscle mechanics

2016

November 1st Conference of the Chilean Association for Human Movement Science, Santiago de Chile, Nov 18
The effects of botox treatments on skeletal muscle structure and function

November Inaugural Conference of the Chilean Association for Human Movement Sciences, Santiago de Chile, Nov 16
Molecular mechanisms of muscle contraction

November 2nd Asia-Pacific Conference on Coaching Science, Shanghai, China, November 12
Muscle mechanics for optimizing sport performance: mechanics and energetics in cross-country skiing

September Japanese Society of Biomechanics, Osaka, Japan, September 12
Muscle mechanics and muscle properties for optimizing sport performance

June BANCUM (Biomechanics and Neural Control Movement), Columbus, Ohio, June 13
Muscle mechanics, energetics and plasticity: knowns, unknowns and future directions

May International Conference on Evidence-Based Exercise Medicine for the Promotion of Lifelong Health, Seoul, Korea, May 19
Risk factors, prevention and treatment of knee osteoarthritis

2015

October Chilean Chiropractic Research Society, Santiago, Chile, October 31
Vertebral artery stresses and strains during chiropractic neck manipulation

October Chilean Chiropractic Research Society, Santiago, Chile, October 30
The biomechanics of spinal manipulation

October Congress of the Norwegian Chiropractic Association, Trondheim Norway, October 23
The biomechanics of spinal manipulation

October Congress of the Norwegian Chiropractic Association, Trondheim Norway, October 23
The stresses and strains experienced by the vertebral artery during spinal manipulation of the neck

August 53rd Meeting of the Society for Natural Philosophy, Calgary, August 20
Muscle Mechanics across Structural Levels

May Brazilian Society of Biomechanics, Florianopolis, Brazil, May 7
The role of muscles in joint health and osteoarthritis

May Brazilian Society of Biomechanics, Florianopolis, Brazil, May 6
Mechanisms of muscle contraction: past, present and future

| | |
|-------------|---|
| 2014 | |
| September | 50 Years of Orthopedics Research, University of Basel, Basel Switzerland, September 24 <i>The roles of muscles in joint biomechanics and osteoarthritis</i> European Muscle Symposium, Vienna, Austria, September 22 <i>A new model for muscle contraction</i> German Society for Sports Sciences, Giessen, Germany, September 19 <i>Functional muscle mechanics in sports</i> |
| August | International Calgary Running Symposium, Calgary, AB, August 14 <i>Running Research: An Outsider's Perspective</i> |
| June | Canadian Chiropractic Protection Agency Legal Conference, Toronto, ON, June 7 <i>Myths, perceptions and facts about cervical spinal manipulations</i> |
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| 2013 | |
| August | XXIV Biennial International Society of Biomechanics Congress, Rio Grande de Norte, Brazil, August 5 <i>The EMG-force relationship revisited: a story that began with A.C.S. (Tony) Guimaraes</i> |
| July | International Society of Biomechanics in Sports Conference, Taipei, Taiwan, July 10 <i>Functional Muscle Mechanics in Sports: Why Should We Care?</i> |
| <hr/> | |
| 2012 | |
| November | Interdisciplinary Conference on Early Osteoarthritis, Basel, Switzerland, Sep 16 <i>Biomechanical Aspects of Early OA: Implications for Clinical Practice</i> |
| November | International Conference on Sport Biomechanics, Porto Allegre, Brazil <i>Muscle Properties and Sport Performance</i> |
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| 2011 | |
| November | The 5 th Asia-Pacific Conference on Exercise and Sports Science, Shanghai, Nov 1-4 <i>The Role of Muscles in Optimizing Sport Performance</i> |
| September | International Workshop on Muscle and Tendon Injury, Barcelona, Spain, September 28 <i>Cellular, Molecular and Sarcomeric Injuries in Skeletal Muscles During Eccentric Contractions</i> |
| September | International Conference on Bio Tibology, London, UK, September 20 <i>On Cartilage, Chondrocytes and Synovial Fluid</i> |
| June | 50 Years of Biomechanics, ETH Zurich, June 17 <i>Biomechanics – travelling through time</i> |
| June | Annual Conference of the International Society of Biomechanics in Sports, Porto, Portugal, June 27-Jul 1 <i>Understanding Muscle Properties in Sports Performance Optimization</i> |
| June | 5 th Kuala Lumpur International Conference on Biomedical Engineering, Kuala Lumpur, Malaysia, June 20-23 <i>In-vivo Cartilage Mechano-Biology: How to Make Progress in Osteoarthritis Research</i> |
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| 2010 | |
| August | 6th World Congress on Biomechanics, Singapore, August 1-6 <i>Revisiting Mechanisms of Muscle Contraction</i> |
| August | Polish Society of Biomechanics, Warsaw, Poland, August 25-28 <i>Insights into the Mechanisms of Muscle Contraction</i> |
| June | UK Physiological Society Conference, Manchester, UK, June 30-July 2 <i>Mechanisms of muscle contraction</i> |
| June | International Society of Electrophysiology and Kinesiology, Aalborg, Denmark, June 16-19 |

June *The role of muscles in sport performance: experimental and theoretical considerations in bicycling*
American College of Sports Medicine, Annual Meeting, Baltimore, MD, June 2-5
Presidents Lecture – The Biomechanics of Muscle Contraction

2009
November Australia and New Zealand Society of Biomechanics, Southport, Australia, November 30-December 1
Force Enhancement and Mechanisms of Skeletal Muscle Contraction
October 2nd International Fascia Research Congress, Amsterdam, Netherlands, October 26-30
Effects of Manipulation of the Spine
July XXIIth International Society of Biomechanics, Cape Town, South Africa, July 2-11
Presidents Lecture: Respect Thy Elders: or Lessons Learnt from the Literature
July Progress in Motor Control (PMC), Marseille, France, July 23-25
The biomechanics of movement control

2008
December The 13th International Conference on Biomedical Engineering, Singapore, December 3-6
Muscle and Joint Biomechanics in the Osteoarthritic Knee
October Chinese Association of Biomechanics in Sports (CABS), Taiyuan, China, October 14-18
The Biomechanics of Muscle Contraction
July The 26th International Conference on Biomechanics in Sports, Seoul, Korea, July 15-18
The Biomechanics of Muscle Contraction: Optimizing Sport Performance
June Kuala Lumpur International Conference on Biomedical Engineering, Kuala Lumpur, June 25-28
The Biomechanics of Muscle Contraction: or Firing Biomechanics Research

2007
August Swiss Sportsorthopaedic Society (GOTS), Engelberg, Switzerland, August 31-September 2
Muscle Biomechanics: From Macro to Micro
August 5th IASTED International Conference on Biomechanics, Honolulu, HI, August 22-25
History dependent properties of skeletal muscle sarcomeres
July XXIth Congress of International Society of Biomechanics, Taipei, Taiwan, July 1-5
History-Dependent Properties in Skeletal Muscle Contraction
May 2nd Congress of the Greek (Hellenic) Society of Biomechanics, Athens, Greece, May 4-6
Force Depression and Force Enhancement in Skeletal Muscle Contraction

2006
September American Society of Biomechanics, Borelli Award, Blacksburg, Virginia, September 6-9
Of Myosins, Muscles and Mechanisms of Contraction
August Canadian Society for Biomechanics, Career Award, Waterloo, Ontario, August 16-19
Muscle Mechanics: From Society to Cell and Back
May 2nd Northwest Biomechanics Symposium, University of British Columbia
Vancouver, BC, Canada, May 12-13
Force Enhancement and Mechanisms of Contraction in Skeletal Muscles

2005
September 27th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Shanghai, China,
Force Enhancement and Mechanisms of Contraction in Skeletal Muscle

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| September | International Association of Science and Technology for Development, Bendorn, Spain <i>Force Enhancement and Mechanisms of Contraction in Skeletal Muscle</i> |
| August | 2005 KASPERD International Sport Science Congress, Chuncheon, Korea <i>Considerations on Muscle Mechanics and Sport Performance</i> |

2004

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| August | Canadian Society for Biomechanics, Halifax, NS |
| July | European Society of Biomechanics, S Hertogenbosch, Netherlands |
| May | European Chiropractors' Union Convention, Helsinki, Finland |

2003

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| October | BC Chiropractic Association, Nanaimo, BC |
| June | Novartis Foundation Symposium 260 Osteoarthritic Joint Pain, London, UK |
| May | European Workshop in Movement Science, Muenster, Germany |
| February | International Symposium on Significance of Musculoskeletal Soft Tissue on Preoperative Planning, Surgery and Healing, Berlin, Germany |
| January | World Federation of Chiropractic Annual Conference, Orlando, FL |

2002

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| March | International Conference on Arthritis Research and Rehabilitation, St. Louis, MO |
| September | 12th International Conference in Mechanics in Medicine and Biology, Greece |
| September | 2002 CE of the Assoc of Swiss Chiropractors, Switzerland |

2001

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| June | International Society of Biomechanics in Sports, San Francisco, CA |
| June | Brazilian Congress of Biomechanics, Gramado, Brazil |
| July | European Congress of Sport Science, Cologne, Germany |
| September | Biomechanica, Davos, Switzerland |

1999

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| September | The 7th International Symposium in Sport and Medicine, Frankfurt, Germany |
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1998

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| September | The 14th Conference of the Japanese Society of Biomechanics, Kofu, Japan |
| September | The 11th International Biomechanics Seminar, Wroclaw, Poland |
| January | 160th Conference of the Dutch Anatomical Society, Lunteren, the Netherlands |

1997

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| August | 16th International Society of Biomechanics, Muscle Mechanics Symposium, Tokyo, Japan |
| September | The 10th International Biomechanics Seminar, Goetheburg, Sweden |

1994

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| March | LACC'S 7th Interdisciplinary Symposium on the Biomechanics of the Spine, Los Angeles, CA |
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1992

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| May | Canadian Chiropractic Association Convention, Regina, SK |
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1990

- September Second Annual Symposium on Low Back Pain, New York City, NY
February Research Days Canadian Memorial College of Chiropractors, Toronto, ON
January NASA Scientific Symposium on the Influence of Gravity and Activity on Muscle and Bone, Moffett Field, CA

INVITED PRESENTATIONS

2021 (205 to date)

- December University of Leuven, Belgium, (Virtual), Dec 15
Planning for a Career in Academic Scientific Research
- August The Science and Environmental Studies Biotechnology & Allied Sciences Symposium, Thunder Bay OT (Virtual), August 27
The past, present and future of biomechanics
- July Congress of the International Society of Biomechanics, Stockholm, Sweden (virtual), Jul 27
Peer-review in science: Essential or just a wastet of time, money and emotional capital?
- July Congress of the International Society of Biomechanics, Stockholm, Sweden (virtual), Jul 26
The distribution problem in biomechanics and motor control: how can we measure, predict and validate in vivo muscle forces?
- May Centre of Research in Myology, Sorbonne University, Paris, France (virtual), May 3
The forgotten filament: Titin's contribution to active force production in muscle
- April McCaig Institute, University of Calgary (virtual), April 21
Muscle contraction revisited: Huxley's missing protein
- March University of Sao Paulo, Brazil, Mar 30
Muscle mechanics: from molecules to function
- February Brigham Young University, Provo, Utah, USA, Feb 11
What's Titin got to do with it: evidence of Titin's contribution to force regulation in skeletal muscle

2020

- December Federal University of Santa Catarina, Virtual Event, Florianopolis, Brazil, Dec 2
Skeletal muscle mechanics: problems, questions and possible solutions
- November Federal University of Manaus, Manaus, Brazil, Nov 27
Fundamental principles of muscle mechanics
- October Federal University of Santa Catarina, Ararangua, Brazil, Oct 27
Osteoarthritis: One disease, many causes
- October IV Regional Health Innovation Symposium, Virtual Event, Urugaiana, Brazil, Oct 23
Secrets of successful international collaborations
- September International Society of Biomechanics in Sports Seminar Series, Virtual Event, United Kingdom, Sep 10
Basic muscle mechanics and selected applications in sports
- July Chilean Association for Human Movement Science, Virtual Event, Jul 30
Obesity, exercise and musculoskeletal rehabilitation

July Neuromechanics Live, Brazilian Society of Biomechanics, Florianopolis, Brazil, Jul 8
Science is not about papers, it is about people

2019

December Multidisciplinary Symposium of 2018 Killam Prize Winners, University of Montreal, Dec 5
Rhythm in biomechanics: from randomness to rhythm to synchrony

October University of Sao Paulo, Brazil, Oct 25
Reflections on an academic research career

University of Sao Paulo, Ribeirao Preto, Brazil, Oct 22
Reflections on muscle: how do muscles contract?

September Conference of the Academy for Cerebral Palsy and Developmental Medicine, Anaheim, CA, Sep 19
Why are spastic muscles weak?
Effects of botulinum toxin Type-A on skeletal muscle

August University of Iowa, Iowa City, Aug 8
Obesity-induced osteoarthritis

August 27th Congress of the International Society of Biomechanics and the 43rd Annual Meeting of the American Society of Biomechanics, Calgary, Aug 2
Reflections on biomechanics and muscles

August 27th Congress of the International Society of Biomechanics and the 43rd Annual Meeting of the American Society of Biomechanics, Calgary, Aug 1
Animal models of osteoarthritis

April University of Calgary Biomedical Engineering Conference, Calgary, Apr 11
How serendipity shaped my career in science

April McCaig Institute, Calgary, Apr 10
Animal models of osteoarthritis

2018

November China Winter Sport Science, Beijing, China, Nov 28
Considerations on Muscle Mechanics in Sports Performance

November China Winter Sport Management Centre, Beijing, China, Nov 28
Applications of Muscle Mechanics in Cross-Country Skiing

November Norwegian University for Science and Technology, Nov 9
Basic muscle mechanics and applications in sports

October Norwegian School of Sport Sciences, Oslo, Norway, Oct 16
Optimizing sport performance through muscle mechanics

October Oslo University for Sport, Norway, Oct 15
The non-intuitive properties of eccentric muscle action

October 5th International Autumn School on Movement Science, Berlin, Oct 9
A new look at skeletal muscle contraction

October Federal University of Santa Catarina, Ararangua, Brazil, Oct 6

Molecular mechanics of residual force enhancement in skeletal muscles

- October Federal University of Santa Catarina, Florianopolis, Brazil, Oct 3
Pedal Force Direction Control in Cycling
- September Nike Global Research Symposium, Portland, OR, Sep 26
How to integrate science into access to sport and improvement of high performance sport outcomes
- August Canadian Society for Biomechanics Conference, Halifax, Aug 14
A historical perspective on the Canadian Society for Biomechanics
- June Congress on Musculoskeletal Regeneration, Berlin, June 15
Muscle degeneration and regeneration in Cerebral Palsy and Obesity
- May NIKE, Portland, USA, May 16
Sport performance evaluation using deterministic models
- May Queens University, Annual Meeting of CONNECT! NSERC CREATE Training Program, May 7-8
Animal models in osteoarthritis
- April University of Wisconsin, Madison, April 12 11
A new paradigm for muscle contraction

2017

- November VI Brazilian Congress of Chiropractic, Florianopolis, Brazil, Nov 11
The stresses and strains experienced by cervical arteries during spinal manipulative treatments of the neck
- November VI Brazilian Congress of Chiropractic, Florianopolis, Brazil, Nov 10
The biomechanics of spinal manipulation
- October GaitNet Canada Symposium, Halifax, NS, Oct 25
Joint loading in osteoarthritis research
- September 46th European Muscle Conference, Potsdam, Germany, Sep 21
Residual force enhancement in skeletal muscles: facts and fancy
- August 41st Annual Meeting of the American Society of Biomechanics, Boulder CO, Aug 11
The distribution problem in biomechanics
- July European Conference of Sport Science, Essen, Germany, July 5
Residual force enhancement: neglected property in sport and health
- April OARSI World Congress on Osteoarthritis, Apr 27, Las Vegas, NV
What can we learn from animal models to inform OA prevention
- April Schulthess Clinic, Zurich, Switzerland, Apr 11
Clinical biomechanics of the musculoskeletal system
- April Federal Technical Institute, Zurich, Switzerland, Apr 10
The role of titin in sarcomere stability, injury prevention, and muscle contraction
- March Karl-Franzens University Graz, Austria, Mar 30
The past, present and future of muscle contraction

- March Orthopedic Research Society Congress, San Diego CA, Mar 21
Musculoskeletal imaging using confocal and multi-photon excitation microscopy
- March Nike Inc., Portland, OR, Mar 14
Academic Career Planning in Biomechanics
- March Federal Technical Institute Zurich, Switzerland, Mar 1
Optimizing sport performance through muscle mechanics
- February European Mechanics Society Colloquium on Advanced Experimental Methods in Tissue Biomechanics, Burg Warberg, Germany, Feb 12-16
Titin: Unheralded giant of muscle contraction
- January International Inflammation Workshop, Banff, Alberta, Jan 26-29
The effects of obesity, metabolic disease and chronic inflammation on musculoskeletal tissues
-

2016

- November Federal University of Santa Catarina, Florianopolis, Brazil, Nov 21
Why is eccentric force greater than concentric?
- September Sport Science and Fitness Congress, Cologne, Germany, Sep 24-25
Joint health and osteoarthritis: muscles, cells and molecules
Novel model of muscle contraction: the 3-filament sarcomere
- September 17th International Symposium: Biomechanics of Human Movement, Jyvaskyla, Finland, Sep 22
Why is eccentric force greater than concentric force?
Muscle stiffness and extensibility: the role of titin
- August Invited Lecture Series, University of Sao Paulo, Ribeirao Preto, Brazil, Aug 29 – Sep 1
Muscle Mechanics Part 1: Muscle structure and the sliding filament and cross-bridge theories of muscle contraction
Muscle Mechanics Part 2: Mechanical properties of skeletal muscles: force-length and force-velocity relationships
Muscle Mechanics Part 3: Residual force enhancement in skeletal muscle contraction: the Role of Titin
Muscle Mechanics Part 4: Considerations on series elasticity in skeletal muscle contraction
- August University of Auckland, Bioengineering, Auckland NZ, Aug 16
Actin-Titin-Myosin Interaction in Eccentric Muscle Contraction
- August Korea-Canada KITECH Conference on Health and Wellness, Ottawa, ON, Aug 8
Considerations on joint health
- August American Society of Biomechanics, Fellows Symposium, Raleigh, NC, USA, Aug 3
Lessons learnt in biomechanics
- July World Congress of Computational Mechanics, Seoul, Korea, July 26
The three filament model of muscle contraction
- June University of Porto, Portugal, June 7
Considerations on the future of sport science research

- April Colorado School of Mines, Denver, CO, April 26
A new paradigm of muscle contraction
- March University of Waterloo, Waterloo, Ontario, March 24
Mechanisms of muscle contraction: past, present and future
- February Annual Meeting of the Association of Academic Physiatrists, Sacramento, CA, Feb 19
Effects of botulinum toxin on contractile properties of muscle
- February University of Bochum, Bochum, Germany, February 11
Muscle mechanics in high performance sport

2015

- October Chilean Chiropractic Research Society, Santiago, Chile, October 31
The Titin revolution
- October Chilean Chiropractic Research Society, Santiago, Chile, October 30
A new paradigm for muscle contraction
- October Chilean Society of Human Movement Science, Santiago, Chile, October 28
Past, Present and Future of Human Movement Science
- October Physiology Seminar Series, University of Calgary, Calgary, Canada, October 8
Muscle mechanics in high performance sports
- October Arthritis Evening, University of Calgary, Calgary, Canada, October 8
Osteoarthritis research: of muscles and joints
- July 9th European Solid Mechanics Conference, Madrid, Spain, July 9
Stability and history-dependent properties of skeletal muscle contraction
- May University of Santa Catarina, Florianopolis, Brazil, May 5
Muscle series elasticity: does it really matter?
- April The Korean Institute for Industrial Technology, Seoul Korea, April 21
The forgotten role of muscles in joint loading and osteoarthritis disease

2014

- November Invited Lecture Series, Santa Catarina, Brazil, November 17 - 21
The sliding filament and cross-bridge theory of muscle contraction
Mechanical properties of skeletal muscles
The role of titin in eccentric muscle contraction
- October 1st International Autumn School on Movement Science, Berlin, Germany, October 21
Eccentric muscle contraction: efficiency and modelling
- September European Muscle Conference, Workshop, Vienna, Austria, September 22
Mathematical modeling in biology and physiology
- July World Congress on Biomechanics, Boston, MA, July 6-12
A new model of skeletal muscle contraction (ISB Presidents Symposium)
The distribution problem in biomechanics (ISB Motor Control Symposium)

In vivo joint biomechanics (CSB Cartilage Symposium)

Vertebral artery biomechanics during cervical spinal manipulation (Spine Biomechanics Symposium)

April OARSI Annual Conference, Paris, France, April 24
Contributions of animal models to Osteoarthritis research

2013

November Clinical Neurosciences, Psychiatry Rounds, Calgary, AB, Canada, November 13
The effects of botulinum toxin type-A on muscle structure

November Sport Science Symposium on "Active Life", Waseda University, Japan, November 28
Optimal Use of Muscles in Sports

October Swiss Sports Orthopedics Society Conference, St. Gallen, Switzerland, October 31
Functional Muscle Mechanics in Sports

October Annual Fall Meeting of the Norwegian Chiropractic Association, Oslo, Norway, October 16-17
The Biomechanics of Spinal Manipulation

October Annual Fall Meeting of the Norwegian Chiropractic Association, Oslo, Norway, October 16-17
Stresses and Strains in Cervical Arteries During Spinal Manipulative Treatments

September Chiropractic Consortium Research Symposium, Toronto, ON, September 27
A SWOT Analysis of Chiropractic Research in Canada

June Technical University of Lisbon, Portugal, June 24
Muscle Series Elasticity: Theoretical and Experimental Considerations

June Technical University of Lisbon, Portugal, June 25
Reflections on Sarcomere Length non-Uniformity and Muscle Contraction

June USRP Undergraduate Research Day, University of Calgary, June 19
Mysteries of muscle contraction

May University of Santa Catarina, Florianopolis, Brazil, May 8
Muscle mechanics in track cycling and cross-country skiing

2012

October Pôle Science et génie du vivant, Symposium du GRSTB, École Polytechnique de Montréal, Montreal, QC, October 10

The role of muscles in joint biomechanics and osteoarthritis

July Technical University of Lisbon, Lisbon, Portugal, July 5
New perspective on the sliding filament and cross-bridge theory

July Technical University of Lisbon, Lisbon, Portugal, July 5
Titin, the multifunctional giant in eccentric muscle contraction

July Karl Franzens University in Graz, Graz, Austria, July 10
Bringing together experimentalists and theoreticians on biological models and simulations

July European Solid Mechanics Conference, Graz, Austria, July 9-10
Force enhancement in skeletal muscles: a role for titin?

June Canadian Society for Biomechanics, Vancouver, BC
Skeletal Muscle Research Across Structural Levels

- May T32 Training Grant, University of Minnesota, St. Paul, Minnesota
The Role of Muscular Loading on Joint Integrity and Health
- April Strength and Conditioning Conference, Canadian Sport Centre Calgary, Calgary, AB
Muscle Properties and Performance in Sport
- March Annual General Meeting of the Alberta College of Chiropractors, Red Deer, AB, March 24
The Biomechanics of Spinal Manipulation
-

2011

- September Consortium of Chiropractic Research, Toronto, ON, September 24
What Are Our Strengths in Biomechanical Research?
- June Annual Conference of the International Society of Biomechanics and Sport
Porto, Portugal, June 27-July 1
Muscle Series Elasticity: Theoretical and Experimental Considerations
-

2010

- November University of Kentucky, Lexington, Kentucky, November 9-11
Mechanisms of muscle contraction: the three-myofibril story
- August University of Western Australia, Perth, Australia, August 7-10
The role of titin in regulating skeletal muscle force
- June IRM symposium, Manchester University, Manchester, June 29
Mechanics of force transmission through tendons and aponeuroses
- April University of Southern California, Los Angeles, CA, April 26
Mechanisms of muscle contraction
-

2009

- December Griffith University, Brisbane, Australia, December 1
The role of muscles in joint loading and osteoarthritis
- November University of Melbourne, Melbourne, Australia, November 23
Mechanisms of muscle contraction
-

2008

- July European Congress of Sports Science, Estoril, Portugal, July 6-12
Cross-bridge memory and history-dependent passive properties In vivo aponeurosis mechanics
- April Alberta College and Association of Chiropractors, Red Deer, AB, April 5
- February Technischen Universität München, Munich, Germany, February 18-21
How do muscles contract? Implications for in vivo muscle function
- January Mathematical Biosciences Institute, Columbus, OH, January 14-18
On the mechanics of sarcomeres
-

2007

- November University of Cologne, Koeln, Germany, November 12-15
Force enhancement and mechanisms of skeletal muscle contraction
- May University of Athens, Athens, Greece, May 4-6
The biomechanics of joints and muscles: from molecular insight to human understanding
- April University of Manitoba, Visiting Scientist Seminar, Winnipeg, MB, April 18
Force enhancement in skeletal muscles and implications for the mechanisms of contraction
Highlights of current research at the Human Performance Laboratory at the University of Calgary

- February University of Southern California, Los Angeles, CA, February 21-23
Force enhancement and mechanisms of contraction in skeletal muscles: The role of muscles in joint biomechanics and osteoarthritis
- February Rehabilitation Aimed at Muscle Performance Forum (RAMP), Vancouver, BC, February 26-27
Force enhancement and mechanisms of skeletal muscle contraction

2006

- February Northwestern Health Sciences University, Minneapolis, MN, February 2-3
Biomechanics of spinal manipulation
- February 8th Annual Orthopaedic Research Symposium, Calgary, AB, February 8
Is quadriceps weakness an independent risk factor for knee osteoarthritis?
- April University of Colorado, Boulder, CO, April 12-14
Force enhancement and mechanisms of contraction in skeletal muscle
- June Charite, Musculoskeletal Research Centre, Berlin, Germany, June 28-30
The role of muscles in joint regeneration
- June Canadian Arthritis Network, Restoration of Joint Function, Vancouver, BC, June 8-9
The role of muscles in joint health and osteoarthritis
- July 11th Annual Congress of the ECSS, Lausanne, Switzerland, July 5-8
The role of tendon and aponeurosis in force transmission in uni-pennate muscles
- July Fifth World Congress of Biomechanics, Munich, Germany, July 29-August 4
Passive force enhancement or not (invited symposium)
- July Fifth World Congress of Biomechanics, Munich, Germany, July 29-August 4
In vivo and in situ force transmission along tendon and aponeurosis (Invited symposium)
- July Fifth World Congress of Biomechanics, Munich, Germany, July 29-August 4
Micro-structural models of articular cartilage
- July Fifth World Congress of Biomechanics, Munich, Germany, July 29-August 4
Does force enhancement increase with increasing stretch magnitudes?
- October American Physiological Society Intersociety Conference: Comparative Physiology 2006: Integrating has Diversity, Virginia Beach, VA, October 8-11
Role of titin in history dependent properties of muscle

2005

- December National Institutes of Health, Bethesda, MD
Muscle mechanics
- September NCMIC Defense Council Seminar, Des Moines, IA
The biomechanics of spinal manipulation
- August National University, Chuncheon, Korea
Considerations on force enhancement and mechanisms of contraction in skeletal muscle
- August Chosun University, Gwangju, Korea
Considerations on force enhancement and mechanisms of contraction in skeletal muscle
- August Yonsei University, Seoul, Korea
Considerations on force enhancement and mechanisms of contraction in skeletal muscle
- May The Athletic Therapy Association-40th CATA conference, Calgary, AB
Muscle function in healthy and injured joints
- April Mayo Clinic, Biomedical Engineering Seminar, Rochester, NY
Considerations on articular cartilage and joint biomechanics
- February University of Waterloo, Waterloo, ON
Considerations on series elasticity and storage/release of mechanical energy in skeletal muscle

2004

November University de Montreal, Montreal, QC
September American Society of Biomechanics, Workshop on Skeletal Muscle Mechanics, Portland, OR
August ICSSPE, 2004 Pre-Olympic Congress, Thessaloniki, Greece
July European Congress of Sport Science, Clermont-Ferrand, France
June Canadian Chiropractic Protective Agency, Toronto, ON
April Stevens' Visiting Scholar, Gainesville, FL
March Society of Experimental Biology (Rodge Woledge Retirement Symposium), Edinburgh, UK

2003

October College of Chiropractors Fall Convention, Banff, AB
August World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia
July International Society of Biomechanics, Dunedin, New Zealand
June Canadian Congress of Applied Mechanics, University of Calgary, Calgary, AB
May World Federation of Chiropractic Annual Conference, Orlando, FL
May University of Glamorgan, Cardiff, UK
March Society of Experimental Biology, Southampton University, Hampshire, UK

2002

September The International Conference on Spinal Manipulation, Toronto, ON
August World Congress of Biomechanics
June The Calgary Chiropractic Society, Calgary, AB

2001

March University of Waterloo, Waterloo, ON

2000

October Calgary Chiropractic Society, Calgary, AB
October Consortium of Canadian Chiropractic Research Centers, Toronto, ON
July European College of Sport Sciences, Jyvaskyla, Finland
June Canadian Chiropractic Association, Toronto, ON
June American College of Sports Medicine, Indianapolis, IN
March Society of Experimental Biology, Exeter University, UK

1999

November 5th World Congress on Sports and Sciences, Sydney, Australia
September Federal Technical Institute in Zurich, Switzerland
June Vrije University of Amsterdam, the Netherlands
March University of California, Davis, CA
LifeWest Chiropractic College, San Francisco, CA

1998

July Technical University, Harburg, Germany
July 2nd International Conference on Spinal Manipulation, Vancouver, BC
August World Conference of Biomechanics, Sapporo, Japan
May Western States Chiropractic College, Portland, OR
April The Canadian Bar Association, Calgary, AB
January Department of Veterinary Medicine, University of Utrecht, Utrecht, The Netherlands

January Sulzer Orthopaedics, Winterthur, Switzerland

1997

November Physiology, Medicine, and Rehabilitation Departments, University of Manitoba, Winnipeg, MB
October Third Spinal Pain Conference, Toronto, ON
August International Society of Biomechanics, Muscle Mechanics Workshop, Tokyo, Japan

1996

August Chairperson at the Canadian Society for Biomechanics Conference
Skeletal Muscle Models Symposium
May Musculoskeletal and Neuromuscular Seminars, University of Innsbruck, Austria
Visiting Scientist Programme
April Rehabilitation Institute of Chicago, IL
Distinguished Lecture Series
March Federal University of Rio Grande do Sul, Porto Alegre, Brazil
Musculoskeletal Seminars

1995

September Third IOC World Congress on Sport Sciences
June CCA Centennial Research Award lecture, Toronto, ON

1994

November Annual Convention of the Chiropractors of Saskatchewan
September College of Chiropractors of Alberta, Fall Convention, Red Deer, AB
July Second World Congress of Biomechanics, Amsterdam, the Netherlands

1993

October The Motor Vehicle Accident, the Law, and You, Calgary, AB

1992

October College of Chiropractors of Alberta, Annual Meeting, Jasper, BC
February Clinical Neurosciences Research Day, Calgary, AB

1991

October College of Chiropractors of Alberta, Banff, AB
April IEEE, Calgary Chapter, Calgary, AB
February University of Iowa, Iowa City, IA

1990

September First World Congress of Biomechanics, San Diego, CA

1989

November University of Iowa City, IA
June Canadian Federation of Biological Societies, Calgary, AB

1988

November IEEE Engineering in Medicine and Biology Society, New Orleans, LA
March Annual Meeting of the Alberta Chiropractic Association, Calgary, AB

February Research Days, Canadian Memorial Chiropractic College, Toronto, ON

1987

August Department of Kinesiology, University of California, Los Angeles, CA
May Department of Kinesiology, University of California, Los Angeles, CA
March Annual Meeting of the Alberta Chiropractic Association, Edmonton, AB
March Department of Medical Physiology, University of Calgary, Calgary, AB

1986

May Department of Surgery, University of Calgary, Calgary, AB
March Annual Meeting of the Alberta Chiropractic Association, Calgary, AB

1985

November Department of Surgery, University of Calgary, Calgary, AB
October Faculty of Medicine, University of Saskatchewan, Saskatoon, SK

1984

December Hawkeye Sports Medicine Symposium, Iowa City, IA
April Annual Riverfest Race Seminar, Iowa City, IA

PRESENTATIONS

2021

May Canadian Society for Biomechanics 2021
Mechanical response of human vertebral arteries to ex-vivo failure testing
(Gorrell L, Sawatsky A, Edwards BW, Herzog W/presenter)

2016 (77 to date)

December ICSS International Congress on Science and Skiing, St. Christoph, Austria
Considerations on the cost of transport in cross-country skiing

2015

April 25th Congress of the International Society of Biomechanics
Deformation patterns of cracked articular cartilage under compression
Early in situ site-specific changes in chondrocyte biomechanical responses due to a partial meniscectomy in the lateral compartment of the mature rabbit knee joint
In vivo static and dynamic deformation of articular cartilage

2014

July 7th World Congress of Biomechanics, Boston, MA
Cartilage biomechanics: what really happens inside a joint?

2013

September American Society of Biomechanics Conference, Omaha, Nebraska
Modulation of titin elasticity in working muscle to minimize energy loss in passive stretch-shortening cycles

August XXIV Congress of the International Society of Biomechanics, Natal, Brazil
Changes in protein concentration in murine knee joints with muscular contraction

April UofC Killam and Vanier Scholarship Recipients, "Excellence at Lunch" Presentation
Success through connections and collaborations

2012

August American Society of Biomechanics, Gainesville, FL
Memorial Tribute to Prof. David Winter, PhD, PEng (June 1930-2012)

June Canadian Society for Biomechanics, Vancouver, BC
Energy cost of skeletal muscle force production is reduced in the force enhanced state (muscle)

2011

August American Society of Biomechanics, Long Beach, CA

2010

August 6th World Congress of Biomechanics, Singapore

2008

September Kerby Centre Health Fair, Calgary, AB
Bone and Joint Disease

2007

August American Society of Biomechanics, Stanford, CA
July International Society of Biomechanics, Taipei, Taiwan

2006

July 5th World Congress of Biomechanics, Munich, Germany

2005

August American Society of Biomechanics, Cleveland, OH
August 2005 KAHPERD International Sport Science Congress, Chuncheon, Korea
February Biophysical Society 49th Annual Meeting, Long Beach, CA

2004

August International Council of Sport Science and Physical Education, Aristotle University
August Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, NS
July European Society of Biomechanics Congress, S Hertogenbosch, The Netherlands
July Annual Congress of the ECSS, Clermont-Ferrand, France
March Annual Main Meeting of the Society for Experimental Biology
May European Chiropractors' Union Convention, Helsinki, Finland

2003

September American Society of Biomechanics, Toledo, OH
August World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia
February Biophysical Society, San Antonio, CA
February Orthopaedic Research Society, New Orleans, CA

2002

August Banff Symposium on Skeletal Muscle, Banff, AB

April Society of Experimental Biology, Swansea, UK

2001

August International Society of Biomechanics, Zurich, Switzerland
July American Society of Biomechanics, San Diego, CA
May World Conference of Chiropractic, Paris, France
April Society for Experimental Biology, Canterbury, UK

2000

October Consortium of Canadian Chiropractic Research Centers, Toronto, ON
August Canadian Society for Biomechanics, Montreal, QC
June Canadian Orthopaedic Research Society, Edmonton, AB

1998

August North American Conference of Biomechanics, Waterloo, ON
August The University of Utrecht, Faculty of Veterinary Medicine, Holland
August 3rd World Congress of Biomechanics, Sapporo, Japan
July 2nd International Workshop on Spinal Manipulation, Vancouver, BC

1997

August International Society of Biomechanics, Tokyo
April Arthritis 2000 Conference, Montreal, QC

1996

August The Canadian Society for Biomechanics, Vancouver, BC
May The Canadian Orthopaedic Research Society, Winnipeg, MB

1995

November The College of Chiropractors of Alberta
August The Whitaker Foundation Conference, Salt Lake City, UT
July International Society of Biomechanics, Finland

1993

August International Union of the Physiological Societies, Glasgow, Scotland
July International Society of Biomechanics, Paris, France
May Canadian Orthopaedic Research Society, Montreal, QC
April International Conference on Spinal Manipulation, Montreal, QC

1992

August North American Conference on Biomechanics, Chicago, IL
May International Conference on Spinal Manipulation, Chicago, IL

1991

December International Society of Biomechanics, Perth, Australia
October Combined Meeting of the Orthopaedic Research Societies of the USA, Japan and Canada
May World Federation of Chiropractic Meeting, Toronto, ON
April International Conference on Spinal Manipulation, Washington, DC

1990

August Canadian Society for Biomechanics, Quebec City, QC
May International Conference on Spinal Manipulation, Washington, DC

1989

August American Society of Biomechanics, Burlington, VT
June International Society of Biomechanics, Los Angeles, CA
March College of Chiropractors of Alberta, Edmonton, AB
March International Conference on Spinal Manipulations, Washington, DC

1988

November Canadian Memorial Chiropractic College, Toronto, ON
November University of Toronto, Toronto, ON
October University of Waterloo, Waterloo, ON
September American Society of Biomechanics, Urbana-Champaign, IL
August Canadian Society for Biomechanics, Ottawa, ON

1987

September American Society of Biomechanics, Davis, CA
July International Society of Biomechanics, Amsterdam, The Netherlands
January International Olympic Committee, Medical Commission, Calgary, AB

1986

August North American Conference on Biomechanics, Montreal, QC
July Novel Approaches to the Study of Motor Systems, Banff, AB

1985

June International Society of Biomechanics, Umea, Sweden

STUDENT AND POSTDOCTORAL AWARDS (SUPERVISOR: W. HERZOG)

2021

Heron Medeiros Winner, Young Investigator Award, Brazilian Society for Biomechanics Congress
Seong-won Han Finalist, New Investigator Award, CSB, Montreal, Canada

2020

Jeff Ilg Winner, Best Presentation in Biomechanics, BME Summer Student Symposium, Calgary, Canada

2019

Jeff Ilg Winner, Podium Presentation, McCaig Summer Student Symposium, Calgary, Canada
Baaba Otoo Winner, David Winter Young Investigator Award (Poster), ISB, Calgary, Canada
Kevin Boldt Finalist, David Winter Young Investigator Award (Poster), ISB, Calgary, Canada
Kevin Boldt Finalist, American Society of Biomechanics Journal of Biomechanics Award, ASB, Calgary, Canada
Jaqueline Rios Winner, J. B. Hyne Research Innovation Award
Eng Kuan Moo Winner, Promising Young Scientist Award, ISB, Calgary, Canada

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| 2018 | |
| Sadhiq Nazeer | Winner, Faculty of Kinesiology Award, UofC Undergraduate Research Symposium |
| Nathaniel Morris | Winner, Gord Sleivert Young Investigator Award, SPort INnovation Summit, Montreal |
| Sherry Mahmood | Winner, Canadian Society for Biomechanics Best Biomechanics Poster, 19 th Alberta Biomedical Engineering Conference, Banff, AB |
| Louise Neave | Winner, Best Oral Presentation in Biomechanics, 12 th Annual Biomedical Engineering Undergraduate Summer Research Symposium, Calgary AB |
| Sherry Mahmood | Winner, Best Presentation, Session 1, McCaig Undergraduate Student Symposium, Calgary, AB |
| Jaqueline Rios | Winner, David Winter Doctoral Young Investigator Award, CSB, Halifax, NS |
| Kevin Boldt | Student Representative of the 2018-2020 Executive Council of the Canadian Society for Biomechanics |
| Scott Sibole | BME Graduate Program Director Leadership Award |

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| 2017 | |
| S.C. Jones | Poster Award for Schulich School of Engineering, SU UofC Undergraduate Symposium |
| K. Wu | Canadian Society of Biomechanics Best Oral Presentation Award, 18 th Alberta Biomedical Engineering Conference, Banff, AB |
| S-w. Han | Finalist, David Winter Young Investigator Award, ISB, Brisbane, Australia |
| K. Boldt | Finalist, David Winter Young Investigator Award, ISB, Brisbane, Australia |
| J.L. Rios | 3 rd Place Poster Award, BJH SCN Obesity Workshop, Leduc, AB |
| Z. Abusara | Winner Meniscus Section Member Poster Award, ORS, San Diego CA |
| K. Collins | Winner Best Poster Award, 10 th Banff International Inflammation Workshop, Banff, AB |

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| 2016 | |
| L. Ko | Winner Best Podium Presentation Award, 17 th Annual Alberta Biomedical Engineering Conference, Banff, AB |
| A. Fukutani | Young Investigator Award, Japanese Society of Biomechanics, Osaka, Japan |
| G. MacDonald | Best Poster Award, CSB, Hamilton, ON |
| K. Collins | J. B. Hyne Research Innovation Award |
| K. Boldt | Finalist of NDI Masters Student Award Competition at CSB Hamilton, ON |

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| 2015 | |
| K. Boldt | Certified Member Presentation Award, CSEP, Hamilton, ON |
| E.K. Moo | Finalist of New Investigator Recognition Award at ORS Las Vegas, USA |
| K. Kaiser | David Winter Young Award, Podium Presentation at ISB Glasgow, UK |
| G. Power | Finalist for David Winter Young Award, Poster Presentation at ISB Glasgow, UK |
| R. Fortuna | J. B. Hyne Research Innovation Award |
| M. Jordan | Young Investigator Award for Sport Innovation Summit at Toronto, ON |

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| 2014 | |
| G. Power | Banting Postdoctoral Award and Honorary Killam Laureate |
| K. Powers | First Place, Podium Presentation Award for the 2014 AB BME Conference, Banff, AB |
| R. Fortuna | Second Place, Podium Presentation Award for the 2014 AB BME Conference, Banff, AB |
| M. Engel | UofC Clearest Message Poster Award at the 2014 AB BME Conference, Banff, AB |
| K. Johnston | CSB Poster Prize at the 2014 AB BME Conference, Banff, AB |
| K. Johnston | CSB 2014 MSc Young Investigator Award, WCB, Boston, MA |
| K. Powers | CSB 2014 PhD Young Investigator Award, WCB, Boston, MA |
| V. Wang | Outstanding Presentation Award at the National Undergraduate Kinesiology Research Conference, Toronto, Ontario, presentation |

2013

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| S. Crooks | Graduate Students' Association Award 2013, presentation |
| E.K. Moo | David Winter Young Investigator Award at the ISB Congress 2013, presentation |
| B. Hisey | David Winter Young Investigator Award at the ISB Congress 2013, poster |
| G. Power | Emerging Scientist Award at the ISB Congress 2013, presentation |
| G. Power | Banting Postdoctoral Fellowship University of Calgary Finalist |
| C. Michelutti | BME Undergraduate Award for Originality, Presentation and Scientific Content |
| C. Tang | Finalist for ISB's Clinical Biomechanics Award 2013 |
| K. Collins | Student Representative of the 2013-2015 Executive Council of the International Society of Biomechanics |
| M. Yamamoto | Winner of Best Physiology Presentation Award at the National Undergrad Symposium, Toronto |
| M. Yamamoto | Winner of the Institute of Engineering and Technology Competition for the Calgary Region, representing the Calgary Region at the North American Final in Toronto in August 2013 |

2012

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| M. DuVall PhD | First Place in the Institute of Engineering and Technology Competition Semi Finals |
| B. Hisey PhD | Acceptance into the Leader's in Medicine Program |
| R. Fortuna PhD | Finalist for the ASB Clinical Biomechanics Award |
| A. Panchangam PhD | Winner of the CSB New Investigator Award |
| M. Yamamoto | Winner of the CSB Young Investigator Award |
| J. Herzog | Finalist for the CSB Young Investigator Award |
| Z. Abusara PhD | Finalist for the CSB New Investigator Award |
| R. Madden MSc | Finalist for the Biomedical Engineering Award |
| N. Abughazaleh MSc | Finalist for the Biomedical Engineering Award |

2011

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| T. Leonard PhD | Winner of the 2010-2011 WAGS/UMI Innovation in Technology Award |
| M. Yamamoto | Alumni Award- Excellence in Research, 6 th Annual Undergraduate Research Symposium Undergraduate |
| S.K. Han PDoc | Journal of Biomechanics Award – 35 th Annual Meeting of the American Society of Biomechanics, |
| A. Leumann PDoc | Michael-Jaeger Award (2 nd place) Swiss Orthopedics Congress for "The 12 Year Natural History of Osteoarthritis in the ACL Transected Cat Knee" |
| Z. Abusara PDoc | Finalist for the Young Investigator Award of the XXIII rd Congress of the International Society of Biomechanics |
| T. Leonard PhD | J.B. Hyne Research Innovation Award, University of Calgary |
| R. Madden MSc | Winner of the best research presentation award, AHFMR OA Team grant meeting |

2010

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| M Yaraskavitch | Poster prize runner up for Leaders in Medicine Conference |
| C Tang MSc | Finalist for the NDI Young Investigator Award of the Canadian Society for Biomechanics |

2009

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| B Hisey PhD | Winner of the Clearest Message poster award at the 10th Annual Alberta Biomedical Engineering Conference |
| C Logan | Winner of the Most Creative poster award at the 10th Annual Alberta Biomedical Engineering Conference |

2008

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| A Sawatsky Undergrad | Finalist for the Journal of Biomechanics Award of the North American Congress on Biomechanics |
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| E-J Lee PhD | Finalist for the NDI New Investigator Award of the North American Congress on Biomechanics |
| E Szabo MSc | Finalist for the NDI New Investigator Award of the North American Congress on Biomechanics |
| M Yaraskavitch MSc | Finalist for the NDI New Investigator Award of the North American Congress on Biomechanics |
| SK Han PhD | Finalist for the NDI New Investigator Award of the North American Congress on Biomechanics |
| V Joumaa PDoc | Winner of the NDI New Investigator Award of the North American Congress on Biomechanics |
| T Leonard PhD | Winner of the NDI New Investigator Award of the North American Congress on Biomechanics |
| B Hisey MSc | Winner of the NDI New Investigator Award of the North American Congress on Biomechanics |

2007

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| N Austin MSc | Winner of the Student's Union Undergraduate Research Symposium, Provost's Award |
| M Blaauboer | Winner of The Organon Young Talent Award |
| V Joumaa PDoc | Finalist for the Journal of Biomechanics award of the American Society of Biomechanics |
| S Federico PDoc | Winner of the Postdoctoral Young Scientist Award of the American Society of Biomechanics |

2006

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| SK Han PhD | Canadian Society for Biomechanics award for Best Poster at the Biomedical Engineering Conference, Banff, AB |
| D Bourne PhD | Canadian Society for Biomechanics award for best podium presentation at the Biomedical Engineering Conference, Banff, AB |
| T Leonard MSc | 2nd place winner for the 6th International Muscle Energetics Conference, Banff, Poster competition |
| A Mehta MSc | 2nd place winner for the 6th International Muscle Energetics Conference, Banff, Poster competition |
| V Joumaa PDoc | Finalist for the CSB Young Investigator Award |
| R Korhonen PDoc | Finalist for the CSB Young Investigator Award |
| D Bourne PhD | Finalist for the CSB Young Investigator Award |
| EJ Lee PhD | Kinesiology Graduate Student Science Presentation Award |

2005

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| T Butterfield PhD | Winner of the National Athletic Trainers' Association Award for outstanding doctoral dissertation |
| EJ Lee PhD | Winner of the Journal of Biomechanics Award of the International Society of Biomechanics |

2004

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| D Peterson PhD | Winner of the New Investigator's Award of the Canadian Society for Biomechanics |
| T Leonard MSc | Winner of the New Investigator's Award of the Canadian Society for Biomechanics |
| D Longino MSc | John Smith and Laura May Gardner Memorial Endowment Award given at the 22nd Annual Surgeons' Day for best Basic Science Research |

2003

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| HD Lee PhD | Winner of the J.B. Hyne Research Innovation Award for Excellence in Scientific Research |
| T Butterfield PhD | Finalist for the Journal of Biomechanics Award of the American Society of Biomechanics |
| S Craig MSc | 2nd place in the Young Investigator's Award of the International Society of Biomechanics |
| M Kaya PhD | Finalists for the Young Investigator's Award of the International Society of Biomechanics |
| S Craig MSc | Finalists for the Young Investigator's Award of the International Society of Biomechanics |
| D Corr | Finalists for the Young Investigator's Award of the International Society of Biomechanics |

2002

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| R Schachar MSc | Winner of the Young Investigator's Award of the Canadian Society for Biomechanics |
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| 2000 | |
| J Archambault PhD | Winner of the New Investigator's Award of the Canadian Society for Biomechanics, PDoc/PhD category |
| A Clark PhD | Finalists for the New Investigator's Award of the Canadian Society for Biomechanics |
| M Kaya PhD | Finalists for the New Investigator's Award of the Canadian Society for Biomechanics |
| S Couillard MSc | Finalists for the New Investigator's Award of the Canadian Society for Biomechanics |
| J Wu PDoc | Winner of the American Society of Biomechanics postdoctoral young scientist award |

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| 1999 | |
| A Clark PhD | Finalist of the Young Investigator Award of the International Society of Biomechanics |
| W Carvalho MSc | Finalist of the Young Investigator Award of the International Society of Biomechanics |
| S Craig MSc | Canadian Society for Exercise Physiology Undergraduate student award for excellence in research project |

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| 1998 | |
| T Koh PhD | Finalist of the New Investigator Award of the North American Conference of Biomechanics |
| HD Lee MSc | Finalist of the New Investigator Award of the North American Conference of Biomechanics |

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| 1996 | |
| E Hasler PhD | Finalist of the New Investigator Award of the Canadian Society for Biomechanics |

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| 1995 | |
| B Prilutsky PDoc | Winner of the post-doctoral young scientist award of the American Society of Biomechanics |

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| 1994 | |
| JG Brooks MSc | Winner of the New Investigator Award of the Canadian Society for Biomechanics |
| T Allinger PhD | Finalist of the New Investigator Award of the Canadian Society for Biomechanics |

FUNCTIONS IN FEDERAL GRANT REVIEW BOARDS

| | |
|-----------|---|
| 2012-2014 | Chair, CIHR Movement & Exercise Review Committee |
| 2011-2012 | Member, CIHR Movement & Exercise Review Committee |
| 2008-2010 | Chair, CIHR Biomedical Engineering Review Committee |
| 2005-2008 | Member-CIHR Biomedical Engineering Review panel |
| 1995-1998 | Member, Medical Research Council of Canada (MRC)-Biomedical Engineering Grant Review Committee |
| 1996-1999 | Member, Natural Sciences and Engineering Research Council (Natural Sciences and Engineering Research Council) - Scholarships and Fellowships Selection Committee for the Life Sciences and Psychology |

MEMBERSHIP AND FUNCTIONS IN PROFESSIONAL ORGANIZATIONS

Present

| | |
|---------------|--|
| 2018- present | Strategic Committee for the Interdisciplinary Science and Innovation Centre (ISIC) project, managed by Campus Facilities Development |
| 2012-present | Rintoul Chair Advisory Committee, Cumming School of Medicine, University of Calgary |
| 2013-present | Arthritis Society Chair in Rheumatic Disease/Rheumatology Advisory Committee, Cumming School of Medicine, University of Calgary |
| 2019-present | International Society of Electrophysiology and Kinesiology |
| 2018-present | Co-Leader Human Mobility Group, Biomedical Engineering Calgary Initiative |

2017-present Chair, SUPPORT: Training and Professional Development, University of Calgary
2017-present Member, Brazilian Society of Biomechanics
2016- present Elected Honorary Member, Chilean Association for Human Movement Science
2016-2022 Member, Nike Sport Research Advisory Board
2014-present Member, Osteoarthritis Research Society International
2013-present Fellow, Royal Society of Canada
2013-present Member, European College of Sport Science
2012-present Member, University Strategic Biomedical Engineering Committee, University of Calgary
2010-present Member, American Physiological Society
2004-present Founder and Selection Chair, Jim Hay Memorial Award, American Society of Biomechanics (Career Award for Biomechanics in the Exercise and Sports Sciences Field)
2004-present Member, European Society of Biomechanics
2000-present Member, International Society of Biomechanics
2000-present Member, Orthopaedic Research Society, American Academy of Orthopaedic Surgeons
1995-present Member, Biophysical Society
1993-present Member, American Association for the Advancement of Science
1987-present Member, Canadian Society for Biomechanics
1983-present Member, American Society of Biomechanics

Past

2017-2021 Vice-Chair, Motor Control Group, International Society of Biomechanics
2021 External Review Committee Member, Faculty of Movement Science, University of Leuven, Belgium
2015-2019 Member, McCaig Institute for Bone and Joint Health Executive Council
2014-2019 Member, Regional Advisory Council for Germany, University of Calgary's International Strategy Team
2012-2019 Member, Grant Submission SUPPORT Team, University of Calgary
2014-2019 Member, Executive Committee of UCARE, Animal Resources Committee
2016-2019 External Assessor, Biomedical Engineering Program at the University of Malaya
2011-2018 International Advisory Board, CIPER (Interdisciplinary Centre for the Study of Human Performance), University of Lisbon
2014-2017 NAU Keck Foundation, Program Committee Member
2013-2017 Member, Faculty Promotion Committee & Research and Scholarly Leave Committee, UofC
2015-2016 Chair, Program Advisory Committee for NSERC CREATE SUPPORT
2014-2016 Faculty Council Representative, The Office of the Chancellor and Senate, UofC
2016 International Evaluation Team, Federal Technical Institute, Zurich (Dept. of Health Science and Technology)
2015 Member, ISB-EDC Congress Travel Grant Committee
2014-2015 Director, Benno Nigg Chair Committee
2015 Member, ASB Fellows Nomination Committee
2014-2015 Member, BME Interim Steering Committee, University of Calgary
2014-2015 Member, Graduate Education Committee, University of Calgary
2014 Member, Strategic Research and Innovation Committee, University of Calgary
2014 Member, Program Advisory Committee NSERC CREATE Program, Dr. D. Rancourt
2011-2014 External Assessor, Biomedical Engineering Program at the University of Malaya
2014 Member, Nomination Committee of the World Congress on Biomechanics
2014 Reviewer, EMBC 2014 Annual Conference Paper Reviewer
2014 Advisor, EU Research Programme, Horizon2020, entitled ALTER-AGEING
2014 Member, Borelli Award Selection Committee for ISB 2015
2014 Scientific Committee Member of the International Conference of the Polish Society of Biomechanics 2014, Lodz, Poland

2014 Track Chair and Organizer for the Muscle and Motor Control Sessions, World Congress of Biomechanics 2014, Boston

2012-2014 Member, GFC Steering Committee, University of Calgary

2011-2014 Member, Life and Environmental Sciences Animal Care Committee (LESACC)

2012-2013 Member, Salary Anomalies Advisory Committee (SAAC), University of Calgary

2013 Elected Fellow, Kinesiology Faculty Representative for Education, University of Calgary

2013 Chair, 2013 ISB Scientific Program Coordinator

2013 Reviewer, 2013 ASB Clinical Biomechanics Award

2013 Member, International Advisory Board for the 15th ICBME Meeting, Singapore

2013 Member, Bidding Committee Member for the ESB2016 in Lyon

2013 Member, International Congress on Sports Science Research Committee

2013 Mentor, ISBS Student Mentor Program (SMP) 2013

2013 Reviewer, ISBS 2013 Scientific Judging Committee

2012 Scientific Committee Member, The 19th European Society of Biomechanics Congress

2012 Reviewer, CSB 2012 President's Award for best poster

2012 Reviewer, ESMC 2012, Oral Young Researcher Award

2012 Member, American Society of Biomechanics Annual Meeting Review and Program Committee

2012 Referee, Engineering in Medicine and Biology Conference Management System for EMBC '12

2012 Member, Research Overhead and Indirect Costs Policy Team, University of Calgary

1999-2011 Executive Board Member, International Society of Biomechanics

2011 Rintoul Chair in Bone & Joint Research, University of Calgary, Selection committee

2011 Faculty of Graduate Studies, University of Calgary, Council representative

2011 Markin USRP in Health and Wellness, Vitamin D Debate, Chairperson

2011 International Advisory Board, Interdisciplinary Centre for the Study of Human Performance, Faculty of Human Kinetics, Technical University of Lisbon, Portugal

2010 Member, International Review Committee, Federal Technical Institute, Zurich (Biology Dept)

2010 Member, Advisory Search Committee, Provost and Vice-President (Academic), University of Calgary

2010 Member, The American Physiological Society

2009 Member, Exercise Physiology Selection Committee, University of Calgary

2009-2013 Advisory Review Committee Member, Arthritis Society Chair in Rheumatic Diseases/Rheumatology

2009 Member, Internal grant review committee, Natural Sciences and Engineering Research Council CREATE, University of Calgary

2008-2009 Member, Steering Committee, BME Grad Program, University of Calgary

2008 Member, Selection Committee, Faculty of Veterinary Medicine, Assistant professors

2008 Member, Selection Committee for Faculty of Kinesiology, Biostatistician position

2008 Executive Committee Member of the Biomedical Engineering Initiative, University of Calgary

2008 Member, American Society of Biomechanics Awards committee

2007 External Examining Committee Member, Department of Chiropractic, Durban University of Technology, Durban, South Africa

2007 Member, External Advisory Panel, University of Iowa

2007-2008 President, International Society of Biomechanics

2007-2008 Member, Advisory Review Committee, Arthritis Society Chair in Rheumatic Diseases/Rheumatology

2007 Conference Chair, IASTED International Conference on Biomechanics, Honolulu

2007 Member, International Society of Biomechanics Clinical Biomechanics Award Committee

2007 Member, External Advisory Board, NIH

2006 Chair, Olympic Oval Endowment Fund

2006 Chair, CFI Leading Edge and New Initiatives Funds (LEF and NIF)

2006 Member, Calgary Health Research Advisory Committee

2006 Chair, NIH Leading Edge and New Initiatives Fund

2005 Member, Alberta Heritage Foundation for Health Research Studentship Advisory Committee
2005 Member, External Advisory Panel, NIH
2005 Member, LSRS Committee, University of Calgary
2005 Member, Steering Committee for Skeletal Muscle Research, CIHR/IMHA
2005-2007 President-Elect, International Society of Biomechanics
2004-2005 Member, Selection Committee for Dean, Faculty of Kinesiology
2004-2006 Member, Scientific Organizing Committee, 5th World Congress of Biomechanics
2004-2005 Scientific Committee Member, European Workshop on Movement Science
2004-2005 Past-President, American Society of Biomechanics
2003-2006 Advisory Board, Singapore Fitness Professionals Federation
2003-2004 President, American Society of Biomechanics
2003 Member, International Review Committee, ISB Congress 2003
2002-2003 President Elect, American Society of Biomechanics
2004 Member, University Veterinarian Advisory Selection Committee
2004 Member, Scientific Steering Committee for the Microscopy and Imaging Facility (MIF)
2004 Member, International Program Committee for IASTED International Conference on Biomechanics, Honolulu
2004 Member, European Society of Biomechanics
2004 Member, Review committee for Assist Prof position, Kinesiology, University of Calgary
2002 Academic Review Committee Member, D. Paskevich
2002 Member, World Council of Biomechanics
2001-2003 Izaak Walton Killam Memorial Scholarship Committee Member, University of Calgary
2000-2002 Scientific Programme Chair, World Conference of Biomechanics, Calgary, 2002
2001-2002 Conference Chair, Banff Symposium on Skeletal Muscle, Banff, AB, 2002
2001 Programme Policy Review Committee, Killam Trust
2001 CIHR Circle Member
2001-2002 Partnership Programme Advisory Committee, University of Calgary
2000-2001 Scientific Programme Chair, American Society of Biomechanics Conference 2001
1993-2000 Member, Medical Science Graduate Education Committee, the University of Calgary
1991-2000 Board Member, Olympic Oval Endowment Fund
1999-2000 Selection Committee, Department Head in Physics and Astronomy, University of Calgary
1999-2000 Member, Scientific Committee of the combined conference of the Société de Biomechanique and the Canadian Society for Biomechanics, Montréal 2000
1999-2002 Executive Board Member, American Society of Biomechanics
1998-2002 Member, University Grants Review Committee
1998-2001 Member, Biomedical Engineering Curriculum Review Committee
1998 Jury Member, World Biomechanics Promotie prijs
1982-1993 Member, American College of Sports Medicine
1987-1993 Member, Sports Medicine Society of Calgary
1990-1996 Member, Universities Coordinating Council
1991-1992 Secretary Treasurer, Canadian Society for Biomechanics
1992 Chairman, New Investigator's Award Committee, Canadian Society for Biomechanics
1992-1994 Conference Chair, Biannual Meeting of the Canadian Society for Biomechanics
1993-1995 Member, Research Policy Committee, The University of Calgary
1995-1997 Past Conference Chair, Canadian Society for Biomechanics
1995-1997 President, Canadian Society for Biomechanics
1997-1999 Past President, Canadian Society for Biomechanics
1995-1998 Member, Task Force on chiropractic research in Canada
1996-1997 Member, Task Force on chiropractic research in the United States

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| 1996-2001 | Member, Life and Environmental Sciences Animal Care Committee, University of Calgary |
| 1996 | Jury Member, World Biomechanics Promotieprijs |
| 1996-1999 | Scientific Chair, XVII Conference of the International Society of Biomechanics |
| 1997-1998 | Member of Nominating Committee, The Arthritis Society of Canada (by merit of top ranking in the annual grant competition) |
| 1997-1998 | Organizer, Symposium on Muscle Mechanics and Movement Control, World Conference, Sapporo, Japan |

REFEREING FOR SCIENTIFIC JOURNALS

Present

| | |
|--------------|--|
| 2019-present | Editorial Board, BMC Biomedical Engineering |
| 2016-present | Editorial Board, Chiropractic & Manual Therapies |
| 2016-present | Advisory Board, German Journal of Exercise and Sport Research |
| 2016-present | Associate Editor, International Journal of Molecular Sciences |
| 2015-present | Editorial Board, Current Issues in Sport Science (CISS) |
| 2015-present | Editorial Board, Journal of Functional Morphology and Kinesiology |
| 2015-present | Editorial Board, Biomechanics and Modeling in Mechanobiology |
| 2015-present | Advisory Board, German Journal of Sport Sciences |
| 2015-present | Editorial Board, International Journal of Mechanical and Materials Engineering |
| 2015-present | Advisory Board, Sportwissenschaft Journal |
| 2011-present | Founding Editor and Co-Editor in Chief, Journal of Sport and Health Science |
| 2010-present | Editorial Board, Muscles, Ligaments and Tendons Journal |
| 2006-present | International Board Member, Sportorthopädie-Sporttraumatologie |
| 2005-present | Editorial Board, Sports-Orthopaedics and Sports-Traumatology |
| 2005-present | Editorial Board, Molecular and Cellular Biomechanics |
| 2004-present | Associate Editor, Exercise and Sports Science Reviews |
| 2002-present | Associate Editor, IEEE Transactions in Neural Systems and Rehabilitation Engineering |
| 2002-present | Editorial Board, Journal of Biomechanics |
| 1997-present | Editorial Board, Journal of Electromyography and Kinesiology |
| 1990-present | Editorial Board, Journal of Manipulative and Physiological Therapeutics |
| 1990-present | Editorial Board, Journal of the Canadian Chiropractic Association |
| 1995-present | Editorial Board, Sportverletzung Sportschaden |

Past

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|-----------|--|
| 2015 | Reviewer, Best Paper Prize for IJMS |
| 1999-2013 | International Consultant and Member of Advisory Board, Brazilian Journal of Biomechanics |
| 2011-2012 | Guest Editor, PLoS Computational Biology |
| 2011 | Editor in Chief, International Journal of Exercise and Health Sciences |
| 2008 | Editorial Board, International Journal of Molecular Sciences |
| 2000-2007 | Associate Editor, The Spine Journal |
| 2003-2005 | Field Editor Biomechanics, Encyclopedia Reference of Neuroscience |
| 1999-2002 | Editorial Consultant, Journal of Biomechanics |
| 1993-2000 | Associate Editor, Journal of the Neuromusculoskeletal System |
| 1995-1998 | Reviewer, Australasian Chiropractic and Osteopathy |
| 1991-1993 | Editorial Board, Journal of Applied Biomechanics Medicine and Science in Sports and Exercise Journal of Neuroscience Methods |

Journal of Orthopaedic Research
Journal of Biomedical Engineering
Clinical Journal of Sport Medicine
Journal of Biomechanical Engineering
Journal of Applied Physiology
Human Movement Science
Journal of Neurophysiology
European Journal of Physiology
Journal of Experimental Biology
Microscopy and Microanalysis
Proceedings of the Royal Society (London)
Transactions of the Royal Society (London)

REFEREEING FOR GRANTING INSTITUTIONS

Present

Chairperson, CIHR Biomedical Engineering Grant Review Committee (2021 – present)

Reviewer, Natural Sciences and Engineering Research Council of Canada (1990-present)

Reviewer, CIHR College of Reviewers (2017- present)

Past

Reviewer, CIHR Foundation Grant Program (2017)

Chairperson, CIHR Movement & Exercise Grants Review Committee (2008-2011)

Chairperson, CIHR Biomedical Engineering Grant Review Committee (2011-2014)

Reviewer, Israel Science Foundation

Review Board Member, National Institutes of Health

Chair of the Benno Nigg Chair Search Committee (2014-2015)

Reviewer, Natural Sciences and Engineering Research Council of Canada (2013)

Committee Member, Movement and Exercise, Canadian Institutes of Health Research (2011-2013)

Grant Review Committee, Alberta Ingenuity New Faculty Award, University of Calgary (2009)

Committee Member, University of Calgary Olympic Oval Endowment Fund (1990-2009)

Grant Review Committee, Biomedical Engineering, Canadian Institutes of Health Research (2005-2008)

Advisory Committee, Alberta Heritage Foundation for Medical Research Studentship (2003-2005)

Graduate Student Scholarship Selection Committee, University of Calgary (2000-2003)

Chairman, University of Calgary Research Grants Committee (1991-1992)

Committee Member, University of Calgary Research Grants Committee (1990-1991)

Committee Member, Alberta Paraplegic Foundation (1990-1991)

Reviewer, Sport Canada Applied Sport Research Program

External Reviewer, Canadian Fitness and Lifestyle Institute

Reviewer, Alberta Heritage Foundation for Medical Research

Reviewer, Medical Research Council of Canada

Reviewer, International Science Foundation

Reviewer, Foundation for Chiropractic Education and Research

National Health Research and Development Program (NHRDP)

National Organization of Sport Sciences

SCIENTIFIC CONFERENCES ORGANIZED

2022

Scientific Committee Member, Congress of International Society of Biomechanics/Japanese Society of Biomechanics, Fukuoka, Japan, July 30-Aug 3, 2021 (2021-2023)
Career Award Committee, Canadian Society for Biomechanics, NACOB, Ottawa, Aug 2022
Scientific Chair, Active Muscle Mechanics: Bone and Soft Tissue, World Congress of Biomechanics, July 10-14, 2022, Taipei, Taiwan

2021

Chair, Hay Award Session, American Society of Biomechanics, Atlanta, Georgia, USA, Aug 10-13, 2021 (virtual)
Chair, Dyson Lecture, International Society of Biomechanics in Sports, Canberra, Australia, Sep 3-7, 2021 (virtual)
Co-organizer (with Drs. Paola Contessa and James Richards), International Symposium on Motor Control in Biomechanics, in conjunction with the 7th International Foot and Ankle Congress, Sao Paulo, Brazil (virtual) April 11, 2021
Career Award Committee, Canadian Society for Biomechanics, Montreal, QC, May 2021 (postponed from August 2020)

2020

International Scientific Committee Member, IUPESM World Congress on Medical Physics and Biomedical Engineering 2021 (WC2021), Singapore
Scientific Committee Member, European Society of Biomechanics Congress, Warsaw, Poland (2019-2022)
Scientific Advisory Board Member, International Congress on Science and Skiing (ICSS), Austria, 2022

2019

Young Investigator Award Committee Member, International Society in Science and Sports, Vuokatti, Finland, March 2019
Conference Chair, International Society of Biomechanics Conference, Calgary AB, July-August 2019 (2016-2019)
Conference Chair, 4th Rocky Mountain Muscle Symposium, Canmore AB, July 2019

2018

David Winter Young Investigator Award Committee Member, Canadian Society for Biomechanics, Halifax, NS, August 2018
Scientific Reviewer / Scientific Chair for Session of Locomotion and Human Movement, World Congress of Biomechanics, Dublin, Ireland, July 2018
Chair, Muscle and Force Session, International Society of Electrophysiology and Kinesiology, Dublin, Ireland, June-July 2018

2017

Founders Awards Committee Member, American Society of Biomechanics Conference, Boulder CO, August 2017
Scientific Committee Member for the EUROMECH Colloquium, Italy, April 2017

2016

Scientific Reviewer, 19th Biennial Meeting of the Canadian Society of Biomechanics, Hamilton ON, July 2016
Scientific Chair of Locomotion and Human Movement for the 8th World Congress of Biomechanics in Dublin, Ireland, July 2018
Scientific Committee Member for Canadian Society of Biomechanics Conference in Hamilton, ON, July 2016
Scientific Advisory Board Committee member for the European Society of Biomechanics Conference in Lyon, France, July 2016
Student Award Committee member for the European Society of Biomechanics Conference in Lyon, France, July 2016

Jim Hay Memorial Award Committee Member for the American Society of Biomechanics Conference, Raleigh NC, August 2016

Borelli Career Award Committee Member for the American Society of Biomechanics Conference, Raleigh NC, August 2016

International Scientific Committee Member for the 16th International Conference on BioMedical Engineering, Singapore, December 2016

2015

European Society of Biomechanics Congress 2015, Prague (Scientific Committee Member)

2013

International Scientific Advisory Board for the ISB 2013, Natal, Brazil (Board Member)

2012

European Solid Mechanics Conference, Graz, Austria (Symposium Organizer)

International Conference of the Polish Society of Biomechanics (Scientific Committee member)

European Society of Biomechanics Congress, Lisbon, Portugal (Scientific Committee member)

2011

International Society of Biomechanics in Sports Conference, Portugal (member of the Scientific Commission)

5th International Conference on Biomedical Engineering, Kuala Lumpur (International Advisory Board/Technical Programme Committee)

23rd Congress of the International Society of Biomechanics, Brussels (Scientific Reviewer)

2010

6th World Congress on Biomechanics, Singapore

(International Advisory Committee member and Track Chair)

2009

2nd International Joint Conference on Biomedical Engineering Systems and Technologies

(BIOSTEC-2009, Scientific Program Committee)

2008

International Conference on Biomedical Engineering, Singapore

North American Congress on Biomechanics (Scientific Program Committee, Advisory Committee Member)

16th Congress of the European Society of Biomechanics (Scientific Program Committee)

Kuala Lumpur International Conference on Biomedical Engineering (International Advisory Board member)

2006

IASTED Biomech 2006 IASTED (International Program committee)

American Society of Biomechanics (Awards Committee member)

Orthopaedic Research Society (Scientific Program Committee)

World Congress of Biomechanics (Scientific Chair for Musculoskeletal Biomechanics)

6th Muscle Energetics Conference (Scientific Program Committee)

2005

27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (Theme Chair in Neuromusculoskeletal mechanics)

IASTED Biomech 2005 (International Program Committee)

2002

World Conference of Biomechanics (Scientific Chair)
 Banff Symposium on Skeletal Muscle (Conference Chair)
 American Society of Biomechanics (Conference Chair)

2001

American Society of Biomechanics (Scientific Chair)

1999

International Society of Biomechanics (Scientific Chair)
 Canmore Symposium on Skeletal Muscle (Conference Chair)

1998

Inaugural Conference of the Canadian Chiropractic Association (Conference Chair)

1994

Canadian Society for Biomechanics (Conference Chair)

FINANCIAL SUPPORT

Principal Investigator – Current Support

| Year | Grant Agency Date | Comments Grant Number | Amount per Year |
|-------------|---|----------------------------------|----------------------------|
| 2020-2025 | Natural Sciences and Engineering Research Council April 1, 2020 – March 31, 2025 | 10028815 | \$ 138,000 |
| 2020-2022 | The Arthritis Society January 1, 2020 – December 31, 2022 | 10027555 | \$ 120,000 |
| 2013-2023 | Canadian Chiropractic Research Foundation September 1, 2013 – June 30, 2021 (average amount) | RT691362 | \$ 48,535 |
| 2011-2023 | Killam Memorial Chair July 1, 2011-June 30, 2022 | 10001203 | \$ 150,000 |
| 2001-2023 | Canada Research Chair-CIHR November 1, 2001 - October 31, 2022 | RT730101 | \$ 200,000 |
| 2015-2023 | CIHR Foundation Scheme July 1, 2015 – June 30, 2022 | 10013332 | \$ 345,834 |
| 2020-2023 | Private Donation (Hart) for Myofibril Research Jan 1, 2020 – Dec 31, 2023 | 10027682 | \$ 50,000 |
| 2022-2027 | Canadian Institutes of Health Research Jul 1, 2022 – Jun 30, 2027 (postponed start date) | PJT-178168 | \$ 199,918 |
| 2021-2026 | Dr. Benno Nigg Chair in Biomechanics Jul 1, 2021 – Jun 30, 2026 | RT751928 | \$ 150,000 |

Principal Investigator – Past Support

| Year | Grant Agency Date | Comments Grant Number | Amount per Year |
|-------------------------|---|----------------------------------|----------------------------|
| Operating Grants | | | |
| 2018-2021 | Alberta Spine Foundation (total award amount) | 10022659 | \$ 75,000 |

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| 2018-2020 | Oct 1, 2018 – Mar 31, 2021 Private Donation (Hart) for Obesity Research Oct 1, 2018 – Sep 30, 2020 | 10022988 | \$ 20,000 |
| 2018-2020 | Private Donation (Vaz) for Rabbit Bed Rest Research Nov 1, 2018 – Oct 30, 2020 | 10022981 | \$ 30,000 |
| 2013-2018 | Natural Sciences and Engineering Research Council April 1, 2013-March 30, 2018 | RT690577 | \$ 115,200 |
| 2017-2018 | Private Donation (Hart) for Muskuloskeletal Research January 1, 2017 – March 31, 2018 | 10016648 | \$ 40,000 |
| 2016 | Metabolic Industries Inc. June 20, 2016 – October 20, 2016 | 10014224 | \$ 50,448 |
| 2016 | Korea Institute of Technology January 1, 2016 – December 31, 2016 | 10013332 | \$ 40,691 |
| 2013-2016 | NSERC Accelerator Grant April 1, 2013-March 30, 2016 | 10004659 | \$ 40,000 |
| 2011-2015 | Canadian Institutes of Health Research October 1, 2011 – June 30, 2015 | 10000427 | \$ 111,935 ¹ |
| 2011-2015 | Canadian Institutes of Health Research January 1, 2011-June 30, 2015 | RT736475 | \$ 105,687 ² |
| 2013-2015 | Canadian Institutes of Health Research September 1, 2013-June 30, 2015 | RT736163 | \$ 108,010 ³ |
| 2009-2015 | Natural Sciences and Engineering Research Council CREATE, April 1, 2009 - August 31, 2015 | RT735134 | \$ 300,000 |
| 2011-2014 | Canadian Institutes of Health Research – CHRP April 1, 2011 – March 30, 2014 | RT736571 | \$ 93,788 |
| 2011-2014 | Natural Sciences and Engineering Research Council-CHRP April 1, 2011 – March 31, 2014 | RT736573 | \$ 93,787 |
| 2009-2013 | Canadian Chiropractic Protective Agency April 1, 2009-March 31, 2011 | RT735444 | \$ 39,320 |
| 2011-2013 | Cerebral Palsy International Research Foundation December 1, 2011 – November 30, 2013 | 10000871 | \$ 50,000 |
| 2010-2013 | National Science Foundation July 15, 2010 – June 30, 2013 | RT736345 | \$ 10,000 |
| 2010-2013 | Canadian Institutes of Health Research October 1, 2010 - September 30, 2013-MOP106597 | RT736163 | \$ 83,824 |
| 2008-2013 | Natural Sciences and Engineering Research Council April 1, 2008 - March 31, 2013 | RT690577 | \$ 60,000 |
| 2012-2013 | Intra-Project OA Team Grant April 1, 2012-March 30, 2013 | | \$ 15,000 |
| 2009-2012 | Canadian Chiropractic Research Foundation January 1, 2009 - December 31, 2012 | RT691362 | \$ 30,000 |
| 2009-2011 | Canada Council for the Arts - Killam Fellowship September 1, 2009-August 31, 2011 | RT739652 | \$ 70,000 |
| 2008-2011 | Canadian Institutes of Health Research April 1, 2008-March 31, 2011-MOP79258 | RT732998 | \$ 102,183 |

¹ rolled into CIHR Foundation Scheme as of July 1, 2015

² rolled into CIHR Foundation Scheme as of July 1, 2015

³rolled into CIHR Foundation Scheme as of July 1, 2015

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| 2006-2010 | Canadian Institutes of Health Research October 1, 2006-September 30, 2010-MOP64347 | RT731367 | \$ 103,674 |
| 2005-2010 | Canadian Institutes of Health Research October 1, 2005-September 30, 2010-MOP42493 | RT694392 | \$ 163,059 |
| 2006-2008 | Canadian Institutes of Health Research February 1, 2006-January 31, 2008 | RT733008 | \$ 54,122 |
| 2006-2008 | Canadian Institutes of Health Research | RT732998 | \$ 69,629 |
| 2003-2008 | Natural Sciences and Engineering Research Council | RT690577 | \$ 59,050 |
| 2003-2006 | Canadian Institutes of Health Research | RT731376 | \$ 55,714 |
| 2003-2006 | Canadian Institutes of Health Research | RT731367 | \$ 75,604 |
| 2002-2003 | Canadian Memorial Chiropractic College | RT693097 | \$ 10,000 |
| 2002-2004 | Canadian Institutes of Health Research-MOP12489 | RT691622 | \$ 110,892 |
| 2002 | President's Circle Award | | \$ 5,000 |
| 2001-2002 | Canadian Memorial Chiropractic College | | \$ 10,000 |
| 2001-2003 | Natural Sciences and Engineering Research Council | RT696197 | \$ 149,780 |
| 2001-2004 | Canadian Foundation for Innovation | RT780145 | \$ 123,078 |
| 2001-2004 | Canadian Institutes of Health Research-MOP45948 | RT698963 | \$ 56,700 |
| 2001-2004 | The Arthritis Society of Canada | | RT698918 \$ 60,000 |
| 2000-2005 | Canadian Institutes of Health Research-MOP42493 | RT694392 | \$ 138,000 |
| 2000 | The University of Calgary short-term grants | | \$ 5,939 |
| 2000 | The Olympic Oval Endowment Fund | | \$ 15,000 |
| 1999-2008 | Canadian Chiropractic Research Foundation | RT691362 | \$ 60,000 |
| 1999-2002 | The Arthritis Society of Canada | | \$ 65,000 |
| 1998-2003 | Natural Sciences and Engineering Research Council | RT690577 | \$ 44,000 |
| 1997-2002 | Medical Research Council of Canada | | \$ 96,000 |
| 1997-2000 | The Arthritis Society of Canada | | \$ 59,970 |
| 1996-1998 | The Arthritis Society of Canada | | \$ 59,400 |
| 1995 | University of Calgary | | \$ 6,270 |
| 1994-1998 | Natural Sciences and Engineering Research Council | | \$ 29,000 |
| 1994-1997 | Medical Research Council of Canada | | \$ 45,775 |
| 1994 | The University of Calgary | | \$ 11,100 |
| 1993-1996 | The Arthritis Society of Canada | | \$ 51,280 |
| 1993-1996 | The Whitaker Foundation | | \$ 54,400 |
| 1991-1994 | Natural Sciences and Engineering Research Council | | \$ 27,500 |
| 1991-1993 | Arthritis Society of Canada | | \$ 47,000 |
| 1991 | Olympic Oval Fund | | \$ 4,465 |
| 1990-1996 | College of Chiropractors of Alberta | | \$ 51,074 |
| 1990 | Canadian Memorial Chiropractic College | | \$ 15,000 |
| 1989 | Government of Alberta - Matching Grant | | \$ 19,507 |
| 1989 | Natural Sciences and Engineering Research Council | | \$ 5,500 |
| 1988-1991 | Natural Sciences and Engineering Research Council | | \$ 22,715 |
| 1988-1989 | Foundation for Chiropractic Education and Research | | \$ 33,896 |
| 1987-1996 | Chiropractic Foundation for Spinal Research | | \$ 11,000 |
| 1987 | Natural Sciences and Engineering Research Council | | \$ 5,000 |

Equipment Grants

| | | | |
|-----------|---|----------|-------------------|
| 2020-2022 | Natural Sciences and Engineering Research Council RTI | 10028571 | \$ 121,330 |
| 2019-2021 | Natural Sciences and Engineering Research Council RTI | 10025393 | \$ 150,000 |
| 2015-2017 | Natural Sciences and Engineering Research Council RTI | 10010458 | \$ 147,042 |
| 2007 | Natural Sciences and Engineering Research Council | RT733871 | \$ 143,452 |
| 2002-2004 | Alberta Heritage Foundation for Medical Research | RT716018 | \$ 61,539 |
| 2002-2005 | Alberta Science and Research Investments Program | RT780145 | \$ 123,078 |
| 2002 | Alberta Heritage Foundation for Health Research | | \$ 61,000 |
| 2000 | Alberta Heritage Foundation for Health Research | | \$ 40,000 |
| 2000 | Natural Sciences and Engineering Research Council | | \$ 58,113 |
| 1997 | The Olympic Oval Endowment Fund | | \$ 10,000 |
| 1993 | The University of Calgary | | \$ 700 |
| 1993 | University of Calgary | | \$ 5,138 |
| 1992 | The Olympic Oval Endowment Fund | | \$ 3,850 |
| 1992 | The University of Calgary | | \$ 4,000 |
| 1991 | Natural Sciences and Engineering Research Council | | \$ 11,694 |
| 1990 | University of Calgary | | \$ 15,000 |
| 1989 | Alberta Heritage Foundation for Health Research | | \$ 15,200 |

Conference Grants

| | | | |
|------|---|--|-------------|
| 2019 | University of Calgary, VP Research, 4 th Rocky Mountain Muscle Symposium | | \$ 5,000 |
| 2019 | University of Calgary, VP Research, ISB/ASB Calgary | | \$ 5,000 |
| 2002 | Alberta Heritage Foundation for Health Research-Banff Muscle Symposium | | \$ 4,000 |
| 2002 | The Olympic Oval Endowment Fund | | \$ 5,000 |
| 2002 | The Whitaker Foundation | | \$USD 3,000 |
| 2002 | Canadian Institutes of Health Research-Banff Muscle Symposium | | \$ 5,000 |
| 2002 | Noraxon - Banff Muscle Symposium - Sponsorship | | \$ 1,000 |

Travel Grants

| | | | |
|------|---|--|----------|
| 2003 | The University of Calgary | | \$ 1,500 |
| 1993 | Alberta Heritage Foundation for Health Research | | \$ 1,980 |

Visiting Scholar Grants

| | | | |
|------|---|--|----------|
| 2000 | Alberta Heritage Foundation for Health Research visiting scholar grants (6) | | \$ 9,875 |
|------|---|--|----------|

Co-Applicant

| Year | Grant Agency Date | Co-applicant | Amount ⁴ |
|-----------|--|------------------|---------------------|
| 2020-2023 | POSNA Research Grant (Amount in USD) | Dr. Jason Howard | \$ 29,296 |
| 2019-2023 | NSF/NIH DMS/NIGMS subgrant from UC Davis (year 1) Worcester Polytechnic Institute (years 2-4) | Dr. Sam Walcott | \$ 247,899 |
| 2019-2020 | American Academy for Cerebral Palsy and Developmental Medicine (AACPDMD) Pedal-with-Pete Foundation (Total grant USD 25,000) subgrant USD | Dr. Jason Howard | \$ 7,100 |
| 2015-2022 | CONNECT! NSERC CREATE – Soft Tissue Engineering | Dr. Brian Amsden | \$ 1,800,000 |

⁴ Bold values are the total award amount all other values are per year.

| | | | |
|-----------|--|-----------------------|---------------------|
| | (Funds transferred to us: \$ 118,416.66) | | |
| 2013-2018 | CFI Leading Edge Fund | Dr. Steven Boyd | \$ 4,739,000 |
| 2014-2015 | AIHS Osteoarthritis Team Grant Extension | Dr. Linda Woodhouse | \$ 475,000 |
| 2013-2014 | AIHS Osteoarthritis Team Grant Extension | Dr. Cy Frank | \$ 1,000,000 |
| 2008-2013 | Alberta Heritage Foundation for Medical Research | Dr. Cy Frank | \$ 1,000,000 |
| 2004-2009 | Canadian Institutes of Health Research | Dr. M. Amrein | \$ 92,000 |
| 2002-2005 | Canadian Foundation for Innovation Osteoarthritis Infrastructure | Dr. D Hart | \$ 4,300,000 |
| 2001-2003 | Innovation and Science Infrastructure Programme | | \$ 3,256,000 |
| 2000-2002 | Canadian Foundation for Innovation Kinesiology Expansion | R. Gravel | \$ 3,256,000 |
| 1999-2000 | National Institutes of Health | E. Suter | \$ 65,590 |
| 1996 | The Olympic Oval Endowment Fund | E. Hasler | \$ 5,000 |
| 1996 | Alberta Heritage Foundation for Health Research | R. Zernicke Equipment | \$ 100,000 |
| 1995-1996 | University of Calgary | P. Dorotich | \$ 1,500 |
| 1995-1996 | The Olympic Oval Endowment Fund | R. Young | \$ 15,000 |
| 1995-1996 | The Olympic Oval Endowment Fund | E. Suter | \$ 10,000 |
| 1994-1996 | The Olympic Oval Endowment Fund | P. Dorotich | \$ 18,000 |
| 1993-1996 | The Olympic Oval Endowment Fund | T. Koh | \$ 8,547 |
| 1993-1996 | Sport Canada | R. Jackson | \$ 22,833 |
| 1993-1996 | Natural Sciences and Engineering Research Council | Y. T. Zhang | \$ 18,500 |
| 1992 | Olympic Oval fund | Y. T. Zhang | \$ 12,000 |
| 1992 | The Olympic Oval Endowment Fund | M. Maitland | \$ 6,800 |
| 1988 | Natural Sciences and Engineering Research Council | B. M. Nigg | \$ 3,000 |
| 1987-1990 | Alberta Chiropractic Association and Canadian Memorial College of Chiropractors | B. M. Nigg | \$ 45,000 |
| 1985-1986 | Alberta Chiropractic Association | B. M. Nigg | \$ 24,500 |

STUDENT FINANCIAL SUPPORT

| Year | Grant Agency Date | Student Awarded | Amount⁵ |
|-------------|---|------------------------|---------------------------|
| 2022 | Kinesiology Presentation Award | Meng Li | \$ 1,250 |
| 2022 | Kinesiology Presentation Award | Franziska Onasch | \$ 1,250 |
| 2022 | Kinesiology Presentation Award | Bryan Yu | \$ 1,250 |
| 2022 | Kinesiology Presentation Award | Shuyue Liu | \$ 1,000 |
| 2022 | Women in STEM Scholarship | Nada Abughazaleh | \$ 2,500 |
| 2022 | Kinesiology Graduate Student Scholarship | Nathan Boon-van M. | \$ 5,000 |
| 2022-2025 | Government of Chile | Mauricio Delgado | \$ 30,000 |
| 2021 | Kinesiology PhD Scholarship | Shuyue Liu | \$ 1,000 |
| 2021 | Kinesiology Presentation Award | Shuyue Liu | \$ 2,000 |
| 2021 | Kinesiology Leadership Scholarship | Nathan Boon-van M. | \$ 3,000 |
| 2021 | BME Graduate Program Entrance Prize | Hannah Smith | \$ 1,500 |
| 2021 | BME Graduate Program Academic Top Up Award | Nada Abughazaleh | \$ 1,000 |
| 2021-2022 | Cy Frank Trainee Award for Bone and Muscle Health | Hannah Smith | \$ 15,750 |
| 2021-2022 | Alberta Graduate Excellence Scholarships (AGES) | Franziska Onasch | \$ 15,000 |

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|-------------|---|------------------------|-----------|
| 2021-2022 | Alberta Graduate Excellence Scholarships (AGES) | Shuyue Liu | \$ 15,000 |
| 2021 | BME Research Scholarship Award | Baaba Otoo | \$ 1,000 |
| 2020 – 2022 | MITACS Accelerate Award | Isabel Aldrich-Witt | \$ 45,000 |
| 2019 - 2021 | Chinese Skating Association | Meng Li | \$ 92,000 |
| 2021 | Kinesiology Presentation Award | Meng Li | \$ 665 |
| 2021 | UofC FGS Scholarship | Drew Lawson | \$ 5,000 |
| 2020 | Alberta Graduate Excellence Scholarship (AGES) | Lindsay Gorrell | \$ 15,000 |
| 2020 | Kinesiology Research Travel Award | Seong-won Han | \$ 5,000 |
| 2020-2022 | Cy Frank Doctoral Scholarship | Nada Abugazaleh | \$ 17,250 |
| 2019-2020 | Eyes High International Doctoral Scholarship | Seong-won Han | \$ 15,000 |
| 2019-2020 | Kinesiology Leadership Award | Seong-won Han | \$ 5,000 |
| 2019 | Kinesiology Presentation Award | Kevin Boldt | \$ 1,250 |
| 2019 | Alberta Graduate Excellence Scholarship (AGES) | Drew Lawson | \$ 11,000 |
| 2019-2020 | FGS Transformative Internship Scholarship | Nathaniel Morris | \$ 8,000 |
| 2019-2020 | FGS Transformative Internship Scholarship | Drew Lawson | \$ 8,000 |
| 2019-2021 | CONNECT! NSERC CREATE Doctoral Scholarship | Seong-won Han | \$ 13,000 |
| 2019 | JB Hyne Research Innovation Award | Jaqueline Lourdes Rios | \$ 500 |
| 2019 | Kinesiology Presentation Award | Seong-won Han | \$ 2,000 |
| 2019 | Kinesiology Leadership Award | Kevin Boldt | \$ 7,000 |
| 2019-2020 | Kinesiology Dean's Doctoral Scholarship | Lindsay-Gorrell | \$ 15,000 |
| 2017-2019 | Izaak Walton Killam Doctoral Scholarship | Scott Sibole | \$ 3,000 |
| 2019 | Kinesiology Leadership Scholarship | Bryan Yu | \$ 3,000 |
| 2019 | Kinesiology Presentation Award | Nathaniel Morris | \$ 1,250 |
| 2019 | Kinesiology Presentation Award | Jaqueline Rios | \$ 2,000 |
| 2018-2019 | Eyes High International Doctoral Scholarship | Seong-won Han | \$ 3,000 |
| 2018-2019 | Own the Podium CSI MSc Award | Drew Lawson | \$ 15,000 |
| 2018-2019 | Vera A Ross Graduate Scholarship | Drew Lawson | \$ 8,500 |
| 2018 | Own the Podium CSI Msc Award | Nathaniel Morris | \$ 14,000 |
| 2018 | Sports Innovation Summit Award | Nathaniel Morris | \$ 1,000 |
| 2018 | McCaig Institute, STOF Award | Jaqueline Rios | \$ 3,000 |
| 2018 | Kinesiology Presentation Award | Lindsay Gorrell | \$ 2,000 |
| 2018 | Kinesiology Outstanding Presenter Award | Jaqueline Rios | \$ 1,000 |
| 2018 | Kinesiology Presentation Award | Alexander Chen | \$ 1,250 |
| 2018 | Kinesiology Presentation Award | Graham MacDonald | \$ 1,250 |
| 2018-2019 | Eyes High International Doctoral Scholarship | Lindsay Gorrell | \$ 11,000 |
| 2018-2019 | Kinesiology Dean's Doctoral Scholarship | Lindsay-Gorrell | \$ 15,000 |
| 2018 | Kinesiology Outstanding Presenter Award | Seong-won Han | \$ 1,000 |
| 2018 | Kinesiology Merit Scholarship | Nathaniel Morris | \$ 3,000 |
| 2018 | Kinesiology Merit Scholarship | Alexander Chen | \$ 2,000 |
| 2018 | Kinesiology Merit Scholarship | Lindsay Gorrell | \$ 1,000 |
| 2017-2018 | BME Differential Fee Scholarship | Baaba Otoo | \$ 2,116 |
| 2017 | Dr. Benno Nigg Distinguished Faculty Achievement Graduate Scholarship | Lindsay Gorrell | \$ 800 |
| 2017-2018 | Eyes High Doctoral Recruitment Scholarship | Graham MacDonald | \$ 25,000 |
| 2017-2021 | CONNECT! NSERC CREATE Doctoral Scholarship | Baaba Otoo | \$ 13,000 |
| 2017-2018 | Alberta Innovates Graduate Studentship | Jaqueline Rios | \$ 12,000 |
| 2017-2020 | CIHR Vanier Canada Graduate Scholarship | Kevin Boldt | \$ 50,000 |
| 2015-2019 | AIHS graduate Studentship | Scott Sibole | \$ 30,000 |
| 2015-2019 | Kinesiology Dean's Doctoral Scholarship | Seong-won Han | \$ 23,000 |

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|-----------|--|----------------------|------------------|
| 2015-2019 | CAPES, Brazil (amount plus tuition) | Jaqueline Rios | \$ 30,500 |
| 2016-2017 | Eyes High International Doctoral Scholarship | Lindsay Gorrell | \$ 12,000 |
| 2017 | Kinesiology Presentation Award | Franziska Onasch | \$ 1,000 |
| 2017 | U of C Faculty of Graduate Studies Scholarship | Lindsay Gorrell | \$ 10,000 |
| 2017 | Kinesiology Merit Scholarship | Shuyue Liu | \$ 1500 |
| 2017 | Allan Markin Doctoral Scholarship | Lindsay Gorrell | \$ 5,000 |
| 2014-2017 | AIHS Doctoral Clinician Scholarship | Graham MacDonald | \$ 70,000 |
| 2015-2017 | Eyes High Doctoral Recruitment Scholarship | Graham MacDonald | \$ 8,000 |
| 2016-2017 | AIHS Doctoral Clinician Scholarship | Kevin Boldt | \$ 70,000 |
| 2015-2017 | Izaak Walton Killam Pre-Doctoral Scholarship | Krysta Powers | \$ 1,500 |
| 2016-2017 | AIHS Graduate Studentship | Kelsey Collins | \$ 12,000 |
| 2015-2017 | CIHR Doctoral Scholarship Award | Kelsey Collins | \$ 30,000 |
| 2015-2017 | AIHS Graduate Studentship | Matt Jordan | \$ 30,000 |
| 2016-2017 | Izaak Walton Killam Pre-Doctoral Scholarship | Matt Jordan | \$ 3,000 |
| 2016-2017 | NSERC Graduate Scholarship | Alexander Chen | \$ 17,500 |
| 2014-2017 | AITF Doctoral Scholarship | Krysta Powers | \$ 31,500 |
| 2014-2016 | AIHS Master's Clinicial Scholarship | Kevin Boldt | \$ 70,000 |
| 2016 | OARSI Collaborative Scholarship | Kelsey Collins | \$ 5000 |
| 2016 | UofC BME Reseach Scholarship Award (declined) | Scott Sibole | \$ 15,000 |
| 2016 | FGS Presentation Award | Jaqueline Rios | \$ 1,000 |
| 2016 | FGS Presentation Award | Shuyue Liu | \$ 250 |
| 2016 | Kinesiology Merit Scholarship | Lindsay Gorrell | \$ 1000 |
| 2016 | Kinesiology Merit Scholarshp | Shuyue Liu | \$ 1,500 |
| 2016 | Kinesiology Merit Scholarship | Alexander Chen | \$ 1,500 |
| 2016 | CIHR CGS-MSFSS award | Kelsey Collins | \$ 6,000 |
| 2015 | CAPES, Brazil | Rafael Fortuna | \$ 23,000 |
| 2015 | Vera A. Ross Graduate Scholarship | Alexander Chen | \$ 4,125 |
| 2015 | Queen Elizabeth II Award | Alexander Chen | \$ 10,800 |
| 2015 | Izaak Walton Killam Pre-Doctoral Scholarship | Matt Jordan | \$ 33,000 |
| 2015 | J.B. Hyne Research Innovation Award | Rafael Fortuna | \$ 500 |
| 2015 | Allan Markin Doctoral Scholarship | Kevin Boldt | \$ 5,000 |
| 2015 | Izaak Walton Killam Pre-Doctoral Scholarship | Kelsey Collins | \$ 3,000 |
| 2015 | FGS Presentation Award | Rafael Fortuna | \$ 1,000 |
| 2015 | Kinesiology Differential Fee Scholarship | Shuyue Liu | \$ 3,000 |
| 2015 | Kinesiology Differential Fee Scholarship | Seong-won Han | \$ 3,000 |
| 2014 | CAPES, Brazil | Rafael Fortuna | \$ 23,000 |
| 2014 | CAPES, Brazil (amount plus tuition) | Jaqueline Rios | \$ 10,200 |
| 2014 | UofC Eyes High Leadership PhD Scholarship | Kelsey Collins | \$ 4,000 |
| 2014 | NSERC CREATE Master's Scholarship | Scott Sibole | \$ 17,300 |
| 2014 | NSERC CREATE Master's Scholarship | Kaleena Johnston | \$ 17,300 |
| 2014 | Team OA Postdoctoral Award | Eng Kuan Moo | \$ 10,000 |
| 2014 | NSERC CREATE Postdoctoral Award | Mohsen Maleki Karyak | \$ 10,000 |
| 2014 | NSERC CREATE Postdoctoral Award | Eng Kuan Moo | \$ 10,000 |
| 2014 | Queen Elizabeth II Award | Maria Yamamoto | \$ 10,800 |
| 2014 | Killam Doctoral Scholarship | Kelsey Collins | \$ 33,000 |
| 2014 | Eyes High Doctoral Recruitment Scholaship (Declined) | Graham MacDonald | \$ (25,000) |
| 2014 | UofC Faculty of Graduate Studies Scholarship | Matt Jordan | \$ 10,000 |
| 2014 | UofC Dean's Doctoral Scholarship | Matt Jordan | \$ 15,000 |
| 2014 | CIHR Masters Scholarship (Declined) | Kevin Boldt | \$ (17,500) |

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|-----------|---|-----------------------|----|---------------|
| 2014 | Faculty of Graduate Studies (FGSS) | Kaleena Johnston | \$ | 3,000 |
| 2014 | Queen Elizabeth II Master's Scholarship | Kevin Boldt | \$ | 10,800 |
| 2013 | CAPES, Brazil | | | |
| 2013 | AITF Master's Scholarship | Kaleena Johnston | \$ | 26,500 |
| 2013 | TENET Medical Engineering Graduate Scholarship | Kelsey Collins | \$ | 2,600 |
| 2013 | NSERC CREATE Master's Award | Anthony Killick | \$ | 17,300 |
| 2013 | NSERC CREATE Doctoral Award | Krysta Powers | \$ | 13,000 |
| 2013 | Eyes High Doctoral Studentship Award | Matt Jordan | \$ | 15,000 |
| 2013 | UofC BME Research Scholarship Award | Krysta Powers | \$ | 3,000 |
| 2013 | Eyes High Doctoral Studentship Award | Krysta Powers | \$ | 12,000 |
| 2013 | Eyes High Doctoral Studentship Award | Kelsey Collins | \$ | 15,000 |
| 2013 | AIHS OA Team Grant Studentship Award | Kelsey Collins | \$ | 5,000 |
| 2013 | CIHR Training Program Studentship Support | Sigrun Matthiasdottir | \$ | 20,000 |
| 2013 | UofC BME Graduate 15 th Anniversary Prize | Nada Abughazaleh | \$ | 3,000 |
| 2013 | UofC BME Graduate 15 th Anniversary Prize | Ryan Madden | \$ | 3,000 |
| 2013 | UofC BME Graduate 15 th Anniversary Prize | Michael DuVall | \$ | 3,000 |
| 2013 | UofC BME Graduate 15 th Anniversary Prize | Scott Sibole | \$ | 3,000 |
| 2013 | UofC BME Graduate Recruitment Prize | Scott Sibole | \$ | 10,000 |
| 2013 | UofC BME Research Scholarship Award | Scott Sibole | \$ | 10,000 |
| 2012 | CAPES | Rafael Fortuna | \$ | 23,000 |
| 2012 | Institute of Engineering and Technology, winner/runner up | Michael DuVall | \$ | 920 |
| 2012-2013 | Emerging Leaders in the Americas Program (ELAP) | Markus Von Kossel | \$ | 10,000 |
| 2012-2013 | NSERC CREATE Studentship Award | Anthony Killick | \$ | 17,300 |
| 2012 | NSERC CREATE Incentive Award | Ryan Madden | \$ | 1,000 |
| 2012-2013 | AIHS OA Team Grant Studentship Award | Kelsey Collins | \$ | 20,000 |
| 2012-2013 | AIHS OA Team Grant Studentship Award | Ryan Madden | \$ | 20,000 |
| 2012 | UofC GSA Bursary | Nada Abughazaleh | \$ | 1,500 |
| 2012 | QE II Graduate Scholarship | Kaleena Johnston | \$ | 7,200 |
| 2012 | Dean's Entrance Scholarship | Kaleena Johnston | \$ | 3,000 |
| 2012 | Canadian Scholarship Trust Found., Peter Wright Award | Kaleena Johnston | \$ | 7,500 |
| 2012 | National Science Foundation | Krysta Powers | \$ | 15,000 |
| 2012 | QE II Graduate Scholarship | Brandon Hisey | \$ | 5,000 |
| 2012 | Alberta Graduate Citizenship Award | Kelsey Collins | \$ | 2,000 |
| 2012 | Alberta Graduate Student Scholarship | Kelsey Collins | \$ | 3,000 |
| 2012 | AIHS OA Team Grant Studentship Award | Andrew Sawatsky | \$ | 11,666 |
| 2012 | Alberta Graduate Student Scholarship | Andrew Sawatsky | \$ | 3,000 |
| 2012 | Emerging Leaders in the Americas Program (ELAP) | Markus von Kossel | \$ | 10,000 |
| 2012 | Alberta Graduate Student Scholarship | Ryan Madden | \$ | 3,000 |
| 2011-2012 | AHFMR OA Team Grant Studentship award | Nada Abughazaleh | \$ | 20,000 |
| 2011-2014 | Alberta Innovates Incentive Award | Michael Duvall | \$ | 6,300 |
| 2011-2014 | NSERC PGS D Award (2011/05/01-2014/04/30) | Michael Duvall | \$ | 21,000 |
| | Alexander Graham Bell | | | |
| 2009-2012 | Natural Sciences and Engineering Research Council | Brandon Hisey | \$ | 35,000 |
| 2011 | Faculty of Graduate Studies Graduate Studies Scholarship | Andrew Sawatsky | \$ | 500 |
| 2011 | Faculty of Graduate Studies Graduate Studies Scholarship | Conrad Tang | \$ | 500 |
| 2011 | AHFMR OA Team Grant Studentship award | Andrew Sawatsky | \$ | 20,000 |
| 2011 | Faculty of Graduate Studies Scholarship | Anthony Killick | \$ | 3,600 |

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|-----------|--|--------------------|----|--------------|
| 2011 | Alberta Graduate Student Scholarship | Conrad Tang | \$ | 3,000 |
| 2010-2011 | AHFMR OA Team Grant Studentship award | Ryan Madden | \$ | 20,000 |
| 2010-2011 | Alberta Innovates – Health Solutions Incentive | Michael Duvall | \$ | 12,000 |
| 2010 | Faculty of Graduate Studies Queen Elizabeth II Scholarship | Andrew Sawatsky | \$ | 7,200 |
| 2010 | Faculty of Graduate Studies Graduate Studies Scholarship | Rafael Fortuna | \$ | 5,500 |
| 2010 | Government of Canada Emerging Leaders in the Americas Program | Debora Cantergi | \$ | 10,000 |
| 2010 | Alberta Innovates – Health Solutions Summer Studentship | Marie Armstrong | \$ | 5,200 |
| 2010 | Natural Sciences and Engineering Research Council CREATE Undergraduate Summer Studentship Programme | Anthony Killick | \$ | 6,000 |
| 2010 | Natural Sciences and Engineering Research Council CREATE Undergraduate Summer Studentship Programme | Esther Chan | \$ | 6,000 |
| 2010 | Natural Sciences and Engineering Research Council Undergraduate Student Research Award | Erica Woo | \$ | 6,000 |
| 2010 | Government of Canada Emerging Leaders in the Americas Program | Fernando Lemos | \$ | 10,000 |
| 2009-2011 | University of Calgary FGS Dean’s Research Allowance | Brandon Hisey | \$ | 2,000 |
| 2009 | University of Calgary FGS Dean’s Entrance Scholarship | Brandon Hisey | \$ | 6,000 |
| 2009 | Alberta Heritage Foundation for Health Research Team Grant scholarship | Lin-Lin Liu | \$ | 20,000 |
| 2009 | Alberta Heritage Foundation for Health Research Studentship Award | Aliaa Youssef | \$ | 21,500 |
| 2009 | Canadian Institutes of Health Research (Frederick Banting & Charles Best) | Michael Duvall | \$ | 17,500 |
| 2009 | Natural Sciences and Health Research Council Undergraduate Student Research Award | Erica Giles | \$ | 5,625 |
| 2009 | Natural Sciences and Health Research Council CREATE Summer Studentship | Caitlin Logan | \$ | 6,000 |
| 2009 | Program for Undergraduate Research Experience Alexander Graham Bell | Caitlin Logan | \$ | 6,000 |
| 2009 | Natural Sciences and Engineering Research Council Alexander Graham Bell | Neal Austin | \$ | 17,500 |
| 2008 | Faculty of Graduate Studies Scholarship | Brandon Hisey | \$ | 8,000 |
| 2008 | Undergraduate Student Research Program, Studentship | Michael DuVall | \$ | 2,000 |
| 2008 | Faculty of Graduate Studies, GRS | Brandon Hisey | \$ | 2,050 |
| 2008 | Faculty of Graduate Studies, GRS | Eun-Jeong Lee | \$ | 500 |
| 2007-2008 | Natural Sciences and Engineering Research Council September August/08 | Megan Yaraskavitch | \$ | 17,300 |
| 2007 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Doug Bourne | \$ | 6,000 |
| 2007 | Faculty of Graduate Studies, Kinesiology Graduate Program Award | Eun-Jeong Lee | \$ | 4,100 |
| 2006-2007 | Alberta Ingenuity September-August/07 | Megan Yaraskavitch | \$ | 7,000 |
| 2006-2008 | Natural Sciences and Engineering Research Council | Eva Szabo | \$ | 20,000 |
| 2006-2007 | Natural Sciences and Engineering Research Council | Megan Yaraskavitch | \$ | 25,000 |

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|-----------|---|--------------------|------------|
| 2006-2007 | Ralph Steinhauer | Megan Yaraskavitch | \$ 15,000 |
| 2006 | Faculty of Graduate Studies, Dean's Research Excellence Award | Megan Yaraskavitch | \$ 3,000 |
| 2006 | Faculty of Graduate Studies, Kinesiology Graduate Program Award | Eun-Jeong Lee | \$ 1711.41 |
| 2006 | Faculty of Graduate Studies Kinesiology Graduate Program Award | Aliaa Youssef | \$ 5888.96 |
| 2006 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Doug Bourne | \$ 3,000 |
| 2005-2009 | Government of Egypt | Aliaa Youssef | \$ 35,000 |
| 2005-2006 | Faculty of Graduate Studies, Leaders in Medicine Scholarship | Danny Peterson | \$ 12,788 |
| 2005 | Faculty of Graduate Studies, Dean's Research Excellence Award | Danny Peterson | \$ 3,000 |
| 2005 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health (Travel Allowance) | Andrew Betik | \$ 2,000 |
| 2005 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Doug Bourne | \$ 40,000 |
| 2004 2008 | Alberta Heritage Foundation for Medical Research | Doug Bourne | \$ 20,000 |
| 2004 2008 | Alberta Ingenuity | Sang-Kuy Han | \$ 22,000 |
| 2004 2007 | Alberta Ingenuity | Karyn Weiss Bundy | \$ 20,000 |
| 2004-2005 | Canadian Institutes of Health Research | Andrew Betik | \$ 22,500 |
| 2004-2005 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Danny Peterson | \$ 20,000 |
| 2004-2005 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Tim Butterfield | \$ 20,000 |
| 2004 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Doug Bourne | \$ 12,078 |
| 2004 | Olympic Oval Endowment Fund | Eun-Jeong Lee | \$ 5,000 |
| 2004 | Natural Sciences and Engineering Research Council Dean's Research Excellence Award | Danny Peterson | \$ 3,000 |
| 2004 | Natural Sciences and Engineering Research Council Dean's Research Excellence Award | Andrew Betik | \$ 3,000 |
| 2004 | Graduate Research Scholarship Award | Tim Butterfield | \$ 4,100 |
| 2004 | Graduate Research Scholarship Award-Eun-Jeong Lee | | \$ 8,200 |
| 2004 | Alberta Provincial Canadian Institutes of Health Research Training Program in Bone and Joint Health | Andrew Betik | \$ 20,000 |
| 2003-2004 | Alberta Ingenuity Fund | Jolene Lepp | \$ 7,000 |
| 2003-2004 | Natural Sciences and Engineering Research Council Postgraduate Scholarship | Jolene Lepp | \$ 19,100 |
| 2003-2004 | Alberta Heritage Foundation for Medical Research | Jolene Lepp | \$ 20,000 |
| 2003-2004 | Canadian Chiropractic Protective Agency | Bruce Symons | \$ 50,000 |
| 2003-2004 | Alberta Heritage Foundation for Medical Research | Andrea Clark | \$ 20,000 |
| 2002-2004 | The University of Calgary | Andrew Betik | \$ 3000 |
| 2002-2004 | Natural Sciences and Engineering Research Council | Andrew Betik | \$ 19,200 |
| 2002-2003 | Natural Sciences and Engineering Research Council Postgraduate Scholarship | Jolene Lepp | \$ |
| 2002-2003 | University of Calgary-Department of Surgery | David Longino | \$ 20,000 |
| 2001-2005 | Government of Iran | Ali Oskouei | \$ 20,000 |

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|-----------|---|--------------------|------------------|
| 2001 | William H. Davis | Andrea Clark | \$ 4,000 |
| 2000-2002 | The University of Calgary | Hae-Dong Lee | \$ 5,000 |
| 2000-2001 | CCPA | Bruce Symons | \$ 25,000 |
| 1998-2003 | MRC | Andrea Clark | \$ 15,200 |
| 1998-2001 | Natural Sciences and Engineering Research Council | Sylvain Couillard | \$ 17,000 |
| 1998-2001 | Alberta Heritage Foundation for Health Research | Motoshi Kaya | \$ 17,500 |
| 1997-2000 | Alberta Heritage Foundation for Health Research | Joanne Archambault | \$ 17,500 |
| 1997-1999 | Alberta Heritage Foundation for Health Research | Wendy Carvalho | \$ 15,000 |
| 1995-1997 | The Killam Foundation | Tim Koh | \$ 18,000 |
| 1995-1997 | Natural Sciences and Engineering Research Council | Joanne Archambault | \$ 17,400 |
| 1994-1996 | Natural Sciences and Engineering Research Council Sunity International | Ming-Ming Liu | \$ 10,500 |
| 1994-1996 | FCER, University of Calgary | Greg Kawchuk | \$ 9,400 |
| 1994 | William H. Davis | Grant Brooks | \$ 4,000 |
| 1993-1996 | Sport Canada | Paul Dorotich | \$ 15,000 |
| 1993-1995 | Natural Sciences and Engineering Research Council | Joanne Archambault | \$ 15,000 |
| 1992-1996 | Federal Sports Committee (ESK), Switzerland | Evelyne Hasler | \$ 21,000 |
| 1992-1996 | CAPEs, Universidade Federal do Rio Grande do Su, Brazil | Marco Vaz | \$ 18,000 |
| 1992-1995 | Alberta Heritage Foundation for Health Research | Tim Koh | \$ 15,000 |
| 1991-1995 | Sport Medicine Centre, University of Calgary | Murray Maitland | \$ 24,000 |
| 1991-1993 | University of Calgary | Grant Brooks | \$ 7,688 |
| 1991-1992 | University of Calgary | Murray Maitland | \$ 2,100 |
| 1990-1993 | Alberta Heritage Foundation for Health Research | Todd Allinger | \$ 15,000 |
| 1990-1992 | Federal Sports Committee (ESK), Switzerland | Evelyne Hasler | \$ 15,000 |
| 1989-1993 | CAPEs, Universidade Federal do Rio Grande do Su, Brazil | Antonio Guimaraes | \$ 18,000 |
| 1988 | Natural Sciences and Engineering Research Council | Lynda Read | \$ 12,500 |

Other Student Funding

| | | | |
|-----------|--|------------------|--------|
| 2022 | NSERC USRA | Dhairya Desai | summer |
| 2022 | NSERC USRA | Wejdaan Faridi | summer |
| 2022 | BME-Schulich Summer Studentship | Chris Tiessen | summer |
| 2022 | BME-McCaig Summer Studentship | Riya Kalaga | summer |
| 2022 | Alberta Spine Foundation Summer Studentship | Torri Heiser | summer |
| 2022-2023 | Kinesiology Undergraduate Research Scholarship | Ireland Lawson | summer |
| 2021 | Faculty of Science/BME Summer Studentship | Asmi Multani | summer |
| 2020 | R. R. Singleton Summer Studentship (McCaig) | Faizan Syed | summer |
| 2020 | NSERC USRA | Jeff Ilg | summer |
| 2020 | PURE | Shabit Hassan | summer |
| 2020 | CONNECT! NSERC CREATE | Muzammil Nasir | summer |
| 2020 | CONNECT! NSERC CREATE | Darius Ramratten | summer |
| 2019 | HYRS | Asmi Multani | summer |
| 2019 | CONNECT! NSERC CREATE | Sadhiq Nazeer | summer |
| 2019 | CONNECT! NSERC CREATE | Muzammil Nasir | summer |
| 2019 | R.R. Singleton Summer Studentship (McCaig) | Jeff Ilg | summer |
| 2019 | Markin USRP | Taylor Pigott | summer |
| 2018 | PURE | Maria Hernandez | summer |
| 2018 | CIHR Summer Studentship | John Michaiel | summer |
| 2018 | R.R. Singleton Summer Studentship (McCaig) | Ross Crichton | summer |
| 2018 | R. R. Singleton Summer Studentship (McCaig) | Jeff Shin | summer |

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|-----------|---|-----------------------|---------------|
| 2018 | CONNECT! NSERC CREATE | Matteo Biglioli | summer |
| 2018 | CONNECT! NSERC CREATE | Neum Jelani | summer |
| 2018 | ELAP | Nicolas Collao Alonso | winter-summer |
| 2017-2018 | TUBITAK | Faruk Örtés | fall-fall |
| 2017 | HYRS | Curtis Ostertag | summer |
| 2017 | R. R. Singleton Summer Studentship (McCaig) | John Michael | summer |
| 2017 | Alberta Innovates Summer Studentship | Carissa Chung | summer |
| 2017 | Markin USRP | Kalvin Wu | summer |
| 2017 | CIHR Summer Studentship | Michael Moroz | summer |
| 2017 | CIHR Summer Studentship | Jenice Ma | summer |
| 2016 | Alberta STEP Program | Loretta Ko | summer |
| 2016 | Alberta STEP Program | James Mather | summer |
| 2016 | Markin USRP | Sophia Poscente | summer |
| 2016 | AIHS Summer Studentship | Charlie Wang | summer |
| 2016 | NSERC USRA | Tabitha Hawes | summer |
| 2016 | NSERC USRA | Michael Moroz | summer |
| 2015 | CIHR Summer Studentship | Anthony Issler | summer |
| 2015 | Markin USRP | Sonja Waeckerlin | fall/winter |
| 2015 | USRA | Craig Martis | summer |
| 2015 | NSERC CREATE CUSP | Dening Wang | summer |
| 2015 | NSERC CREATE CUSP | Jennifer O'Reilly | summer |
| 2015 | NSERC CREATE CUSP | Myles Borthwick | summer |
| 2015 | AIHS Summer Studentship | Paul Riek | summer |
| 2015 | AIHS Summer Studentship | Si (David) Yong Kim | summer |
| 2015 | MARKIN-USRP | Sudepta Aurka | summer |
| 2015 | PURE | Svetlana Kuznestova | summer |
| 2015 | USRA | Thomas Zhang | summer |
| 2015 | NSERC CREATE CUSP | Tristan McSwiney | summer |
| 2015 | NSERC CREATE CUSP | Jahaan Ali | summer |
| 2014 | USRA | Alexis Jones | summer |
| 2014 | O'Brien Centre Summer Studentship | Charmi Dholakia | summer |
| 2014 | NSERC CREATE CUSP | Violet Campbell | summer |
| 2014 | NSERC CREATE CUSP | Jens Herzog | summer |
| 2014 | NSERC CREATE CUSP | Vivian Wang | summer |
| 2014 | NSERC CREATE CUSP | Alex Li | summer |
| 2014 | NSERC CREATE CUSP | Svetlana Kuznetsova | summer |
| 2014 | PURE | Sean Crooks | summer |
| 2014 | AIHS | Hilda Antwi-Nsiah | summer |
| 2013 | NSERC-USRA | Kevin Boldt | summer |
| 2013 | NSERC-USRA | Violet Campbell | summer |
| 2013 | Markin-USRP | Vivian Wang | summer |
| 2013 | AIHS Summer Undergraduate Award | Sean Crooks | summer |
| 2013 | NSERC - CREATE CUSP | Cory Meeuwisse | summer |
| 2013 | NSERC - CREATE CUSP | Jens Herzog | summer |
| 2012 | Markin – USRP | Stephanie Vetsch | summer |
| 2011 | NSERC – CREATE CUSP | Haakon Lenes | summer |
| 2011 | NSERC – CREATE CUSP | Sean Crooks | summer |
| 2010 | HYRS | Chelsea Saltys | summer |
| 2010 | NSERC – CREATE CUSP | Anthony Killick | summer |

| | | | |
|------|--|--------------------|-----------|
| 2010 | NSERC – USRA | Erica Woo | summer |
| 2010 | NSERC – CREATE CUSP | Esther Chan | summer |
| 2010 | Alberta Innovates | Marie Armstrong | summer |
| 2010 | Markin –Flanagan | Marie Armstrong | summer |
| 2009 | HYRS | Sarah Holub | summer |
| 2009 | ELAP | Fernando Lemos | spring |
| 2009 | NSERC – CREATE CUSP | Caitlin Logan | summer |
| 2009 | PURE | Mike Duvall | summer |
| 2009 | Markin – USRP | Michael Duvall | |
| 2009 | NSERC – USRA | Erica Giles | summer |
| 2008 | NSERC – USRA | Andrew Wu | summer |
| 2008 | NSERC – USRA | Jena Hall | summer |
| 2008 | NSERC – USRA | Dianne Ikeda | summer |
| 2008 | NSERC – USRA | Mike Duvall | summer |
| 2007 | Markin – USRP | Neal Austin | summer |
| 2007 | Markin – USRP | Neil Austin | summer |
| 2006 | Markin – USRP | Caitlin Logan | summer |
| 2006 | Markin – USRP | Summer Students | |
| 2004 | Markin – USRP | Laura E. Hinz | winter |
| 2003 | Markin – USRP | Robert A. Mutch | fall |
| 2003 | Markin – USRP | Robert A. Mutch | summer |
| 2003 | Markin – USRP | Summer Students | |
| 2002 | Markin – USRP | Keith P. Barrett | summer |
| 2002 | Markin – USRP | Graeme M. Campbell | summer |
| 2002 | Markin – USRP | Emily X. Zhang | summer |
| 2002 | Markin – USRP | Summer Students | |
| 2002 | Markin – USRP | Emily X. Zhang | fall |
| 2002 | Markin-Flanagan Summer Studentships | Summer Students | \$ 3,000 |
| 1999 | Natural Sciences and Engineering Research Council | Summer Students | \$ 5,200 |
| 1997 | Alberta Heritage Foundation for Health Research | Summer Students | \$ 5,200 |
| 1996 | Alberta Heritage Foundation for Health Research | Summer Students | \$ 5,200 |
| 1995 | Alberta Heritage Foundation for Health Research and Natural Sciences and Engineering Research Council | Summer Students | \$ 16,600 |
| 1994 | Alberta Heritage Foundation for Health Research | Summer Students | \$ 5,200 |
| 1992 | Natural Sciences and Engineering Research Council | Summer Students | \$ 7,200 |
| 1991 | University of Calgary-SEED | Summer Student | \$ 2,380 |
| 1991 | Natural Sciences and Engineering Research Council | Summer Students | \$ 6,400 |
| 1990 | Natural Sciences and Engineering Research Council and STEP | Summer Students | \$ 5,835 |
| 1989 | Natural Sciences and Engineering Research Council | Summer Students | \$ 8,677 |
| 1988 | Summer Employment/Experience Development | Summer Student | \$ 2,736 |
| 1987 | Summer Temporary Employment Program | Summer Student | \$ 7,700 |

POSTDOCTORAL FELLOW FINANCIAL SUPPORT**Current**

| Year | Grant Agency Date | Student Awarded | Amount per year |
|-------------|---|------------------------|------------------------|
| 2020 – 2022 | Swiss National Science Foundation (1.5 years) | Fransiska Bossuyt | \$ 125,000 |

Past

| Year | Grant Agency Date | Student Awarded | Amount⁶ |
|-------------|--|------------------------|---------------------------|
| 2017 – 2021 | CIHR Postdoctoral Award | Ian Smith | \$ 40,000 |
| 2017 – 2019 | Alberta Innovates | Amin Komeili | \$ 50,000 |
| 2018 – 2019 | Alberta Innovates – Health Solutions | Eng Kuan Moo | \$ 50,000 |
| 2016 - 2018 | AIHS Incentive Award | Eng Kuan Moo | \$ 15,000 |
| 2015 - 2018 | CIHR Postdoctoral Award | Eng Kuan Moo | \$ 40,000 |
| 2016 – 2018 | Japanese Society for the Promotion of Science | Atsuki Fukutani | \$ 56,700 |
| 2015 - 2017 | Alberta Innovates – Health Solutions | Ian Smith | \$ 50,000 |
| 2015 – 2018 | Alberta Innovates – Health Solutions | Kelly Kaiser | \$ 70,000 |
| 2015 - 2017 | Alberta Innovates – Health Solutions | Mohsen Maleki-Karyak | \$ 50,000 |
| 2015 - 2017 | Eye High Postdoctoral Award | Amin Komeili | \$ 50,000 |
| 2014 – 2015 | NSERC CREATE Postdoctoral Fellowship | Eng Kuan Moo | \$ 10,000 |
| 2014 – 2015 | Banting Award | Geoff Power | \$ 70,000 |
| 2014 – 2015 | Alberta Innovates – Health Solutions | Geoff Power | \$ 10,000 |
| 2014 – 2015 | University of Calgary Banting Award VP Award | Geoff Power | \$ 15,000 |
| 2014 | OA Team Grant Studentship | Eng Kuan Moo | \$ 10,000 |
| 2012 - 2012 | Alberta Innovates – Health Solutions | Ziad Abusara | \$ 80,000 |
| 2011 - 2011 | Alberta Innovates – Health Solutions | Ziad Abusara | \$ 35,000 |
| 2011 – 2012 | Alberta Innovates | Hadi Mohammadi | \$ 50,000 |
| 2010 - 2011 | Alberta Innovates – Health Solutions | Hadi Mohammadi | \$ 35,000 |
| 2009 - 2011 | Natural Sciences and Engineering Research Council CREATE-October 2009-September 2011 | Appaji Panchangam | \$ 20,000 |
| 2009 - 2010 | Alberta Heritage Foundation for Medical Research OA Team Grant-February 2009-March 2011 | Ziad Abusara | \$ 22,500 |
| 2007-2008 | Alberta Heritage Foundation for Health Research | Salvatore Federico | \$ 35,000 |
| 2005-2007 | Alberta Heritage Foundation for Health Research | Rami Korhonen | \$ 35,000 |
| 2004-2007 | Alberta Heritage Foundation for Health Research | Sharon Bullimore | \$ 35,000 |
| 2004-2006 | Alberta Ingenuity | Salvatore Federico | \$ 48,000 |
| 2004-2005 | Natural Sciences and Engineering Research Council | Kevin Forrester | \$ 40,000 |
| 2003-2004 | Universidade Federal do Rio Grande do Su, Brazil | Marco Vaz | \$ 44,000 |
| 2002-2004 | Alberta Ingenuity | David Corr | \$ 40,000 |
| 2002-2004 | Alberta Heritage Foundation for Health Research | LePing Li | \$ 40,000 |
| 2002 | Canadian Memorial College of Chiropractors | Janice Drover | \$ 30,000 |
| 2000 | Canadian Memorial College of Chiropractors | Mirjam Baechler | \$ 30,000 |
| 1998-1999 | Pacific Institute of Mathematical Science-R | Ait-Haddou | \$ 10,000 |
| 1998 | Canadian Memorial College of Chiropractors | Jill Hayden | \$ 30,000 |
| 1997-2000 | Alberta Heritage Foundation for Health Research | John Wu | \$ 37,800 |

⁶ Bold values are the total award amount all other values are per year.

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|-----------|---|-----------------|----|---------------|
| 1997 | Sport Medicine Centre, University of Calgary | Richard Young | \$ | 30,000 |
| 1996-1997 | Swiss National Foundation | Esther Suter | \$ | 40,000 |
| 1995-1996 | Olympic Oval Endowment Fund | Richard Young | \$ | 15,000 |
| 1994-1996 | Canadian Chiropractic Association | Esther Suter | \$ | 28,000 |
| 1993-1995 | Alberta Heritage Foundation for Health Research | Boris Prilutsky | \$ | 33,730 |
| 1992-1993 | University of Calgary | Boris Prilutsky | \$ | 27,600 |
| 1991-1993 | Canadian Chiropractic Association | Julianna Gál | \$ | 25,000 |

SUPERVISION

Postdoctoral Fellows

Current

2020 Fransiska Bossuyt (Aug 1, 2020, visiting from Switzerland)

Past

2020 Seong-won Han (Sep 1, 2020 – Dec 31, 2021)
 2014-2021 Ian Smith (April 28, 2014 -Sep 30, 2021)
 2020 Kotaybah Hashlamoun (May 1 – Aug 30, co-supervised with S. Federico)
 2014-2020 Eng Kuan Moo (May 15, 2014 – Mar 31, 2020)
 2015-2019 Amin Komeili (April 1, 2015 – Nov 15, 2019)
 2016-2018 Atsuki Fukutani (April 6, 2016 – April 5, 2018, visiting from Japan)
 2012-2018 Kelly Kaiser (September 1, 2012 – March 17, 2018, maternity leave Mar 9, 2016 – Mar 8, 2017)
 2016-2017 Rafael Fortuna (Oct 1, 2016 – Sept 30, 2017)
 2013-2017 Chris Waters (August 1, 2013 – Jul 31, 2017)
 2014-2017 Mohsen Maleki Karyak (January 1, 2014- Jan 30, 2017, co-supervised with S. Federico)
 2013-2015 Geoff Power (January 1, 2013 – Oct 15, 2015)
 2014-2015 Atsuki Fukutani (April 1, 2014-March 30, 2015, visiting from Japan)
 2014 Anas Atieh (January 1, 2014)
 2012 Christian Egloff (January 5, 2012-December 31, 2012)
 2010-2012 Hadi Mohammadi (July 1, 2010)
 2008-2012 Appaji Panchangam (October 1, 2008)
 2005-2011 Venus Joumaa (June 1, 2005-August 31, 2011)
 2009-2011 Sang-Kuy Han (September 1, 2009–April 29, 2011)
 2010-2010 Monika Horisberger (January 6, 2010–December 31, 2010)
 2009-2010 Jack Chieslar (July 15, 2009–July 15, 2010)
 2009 Andre Leumann (January 1, 2009–December 31, 2009)
 2007-2008 Gudrun Schappacher, Universitat Graz, Austria
 2007 Samer Adeeb
 2005-2007 Rami Korhonen
 2004-2007 Sharon Bullimore
 2004-2006 Salvatore Federico
 2002-2007 LePing Li
 2005-2006 Ali Oskouei
 2004-2006 Kevin Forrester
 2003-2004 Marco Vaz
 2002-2004 David Corr
 2002-2002 Janice Drover
 2001-2005 Dilson Rassier

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|-----------|--------------------|
| 2001-2002 | Joanne Archambault |
| 2000 | Mirjam Baechler |
| 1998-2006 | Rachid Ait Haddou |
| 1998 | Rick Neptune |
| 1998 | Jill Hayden |
| 1997-1998 | Jack Chieslar |
| 1996-1997 | Julianna Gál |
| 1995-1997 | Richard Young |
| 1994-2000 | John Wu |
| 1994-1997 | Esther Suter |
| 1994 | Hans Savelberg |
| 1992-1995 | Boris Prilutsky |
| 1991-1993 | Julianna Gál |

Students Graduated (up to 2019, 32 MSc and 30 PhD)

| | | |
|-----------|---|------------|
| 2021 | Sarah Abramovic, MSc, Kinesiology (visiting from ETH Zurich for MSc Project) The non-intuitive, in-vivo behavior of aponeuroses in a unipennate muscle | Supervisor |
| 2018-2021 | Drew Lawson, MSc, Kinesiology <i>Evaluation of the lower body strength and landing strategy of elite athletes after anterior cruciate ligament reconstruction with hamstring autograft</i> | Supervisor |
| 2016-2020 | Lindsay Gorell, PhD, Kinesiology <i>Musculoskeletal biomechanical and electromyographical responses associated with spinal manipulation</i> | Supervisor |
| 2016-2020 | Kevin Boldt, PhD, Kinesiology <i>Exercise and dietary interventions in a rat model of cardiac adaptation</i> | Supervisor |
| 2015-2020 | Seong-Won Han, PhD, Kinesiology <i>Changes in patellofemoral joint mechanics in the presence of quadriceps muscle imbalance</i> | Supervisor |
| 2017-2020 | Nathaniel Morris, MSc, Kinesiology <i>Neuromuscular deficits following anterior cruciate ligament reconstruction with hamstring autograft: implications for rehabilitation and return to sport testing</i> | Supervisor |
| 2014-2019 | Jaqueline Lourdes Rios, PhD, Kinesiology <i>Exercise and dietary interventions in a rat model of metabolic knee osteoarthritis</i> | Supervisor |
| 2012-2017 | Kelsey Collins, PhD, Biomedical Engineering <i>Diet-induced obesity and musculoskeletal health: Studies in a rat model</i> | Supervisor |
| 2015-2017 | Shuyue Liu, MSc, Kinesiology <i>The origin of force increase in actively stretched single muscle fibres</i> | Supervisor |
| 2012-2017 | Krysta Powers, PhD, Biomedical Engineering <i>A proposed mechanism for enhanced Titin-based force during Ca²⁺ - activation</i> | Supervisor |
| 2012-2017 | Matt Jordan, PhD, Medical Science <i>Neuromuscular function and performance in alpine ski racers with anterior cruciate ligament reconstruction: a return to sport framework</i> | Supervisor |
| 2009-2016 | Brandon Hisey, MD/PhD, Biomedical Engineering <i>Mechanics of amphibian skeletal muscle at long lengths</i> | Supervisor |
| 2013-2016 | Maria Engel (Yamamoto), MSc, Biomedical Engineering <i>The effects of increased muscle stimulation on serial sarcomere number</i> | Supervisor |
| 2013-2016 | Kevin Boldt, MSc, Kinesiology <i>Contractile properties of cardiac muscle following increasing doses of chronic exercise training and overtraining in rats</i> | Supervisor |
| 2013-2016 | Scott Sibole, MSc, Kinesiology | Supervisor |

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|-----------|--|-----------------------------|
| 2014-2015 | <i>pyCellAnalyst: Extensive software for three-dimensional analysis of deforming cells</i> Hendrik Enders PhD | Supervisor |
| 2009-2015 | <i>Conticomuscular contributions to the control of rhythmic movement in humans</i> Rafael Fortuna PhD | Co-Supervisor Supervisor |
| 2010-2015 | <i>Acute and chronic effects of Botulinum toxin type-A on the structure and function of the quadriceps femoris muscles of New Zealand white rabbits</i> Mike DuVall PhD | Supervisor |
| 2011-2015 | <i>Titin regulation of active and passive force in skeletal muscle</i> Heiliane Fontana PhD | Co-Supervisor |
| 2012-2015 | <i>In-vivo vastus lateralis force-length and force-velocity relationships at the fascicle and muscle tendon unit level</i> Kaleena Johnston MSc | Supervisor |
| 2012-2014 | <i>An Examination of Sarcomere Length Non-uniformities in Actively Stretched Muscle Myofibrils</i> Eng Kuan Moo, PhD, Kinesiology | Supervisor |
| 2011-2014 | <i>In situ and in vitro chondrocyte biomechanics</i> Sigrun Matthiasdottir MSc | Supervisor |
| 2011-2014 | <i>Muscle and Fascicle Excursion in CP Children</i> Nada Abughazaleh MSc | Supervisor |
| 2010-2014 | <i>The Influence of Maximal and Submaximal Cyclic Concentric and Eccentric Exercise on Chondrocyte Death and Synovial Fluid Proteins in the Rabbit Knee</i> Anthony Killick MSc | Supervisor |
| 2010-2014 | <i>Metabolically Optimal Gait Transitions in Cross-Country Skiing</i> Conrad Tang MSc | Supervisor |
| 2010-2013 | <i>A Prospective Study Evaluating the Effects of Manual Therapy on the Treatment of Patellofemoral Pain</i> Ryan Madden MSc | Supervisor |
| 2010-2013 | <i>In Situ Chondrocyte Mechanics and Mechanobiology</i> Andrew Sawatsky MSc | Supervisor |
| 2008-2012 | <i>The Effect of Vastus Medialis Transection on Patellofemoral Contact Pressure and Patellar Tracking</i> Audree McKenzie MSc | Supervisor |
| 2004-2011 | <i>Passive cardiac properties and titin expression in dilated cardiomyopathy</i> Doug Bourne PhD | Supervisor |
| 2005-2010 | <i>Chondrocyte viability after in vivo muscular and impact loading</i> Aliaa Rehan Youssef PhD | Supervisor |
| 2004-2010 | <i>The development of botulinum type-A toxin-induced muscle weakness model of OA</i> Tim Leonard PhD | Supervisor |
| 2008-2009 | <i>Force production in lengthened myofibrils and single sarcomeres</i> Neal Austin MSc | Supervisor |
| 2005-2009 | <i>In vivo skeletal muscle fiber function</i> Sang-Kuy Han PhD | Supervisor |
| 2007-2009 | <i>In situ chondrocyte mechanics and numerical modeling</i> Brandon Hisey MSc | Supervisor |
| 2006-2008 | <i>New observations on residual force enhancement in cat soleus</i> Eva Szabo MSc | Supervisor |
| 2006-2008 | <i>Muscle adaptation in patients with joint injury and disease</i> Megan Yaraskavitch MD/MSc-LIM | Supervisor |
| 2006-2008 | <i>Changes in passive muscle properties and titin in spastic cerebral palsy</i> Matthew Gotch MSc | Co-Supervisor |
| | Department of Mechanical and Manufacturing Engineering <i>The effect of anterior knee joint loading on hamstrings muscle stiffness</i> | |

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|-----------|--|---------------|
| 2005-2008 | Ashi Mehta MSc <i>Cross-bridge mechanics</i> | Supervisor |
| 2002-2008 | Eun-Jeong Lee PhD <i>History dependent force production in single skeletal muscle fibres</i> | Supervisor |
| 2002-2006 | Gholamreza Rouhi PhD <i>Theoretical aspects of bone remodeling process</i> | Co-Supervisor |
| 2001-2005 | Ali Oskouei PhD <i>History dependence of skeletal muscle force production in sub-maximal voluntary contractions of human adductor pollicis muscle</i> | Supervisor |
| 2001-2005 | Daniel Peterson PhD <i>Selected mechanical properties of amphibian skeletal muscle</i> | Supervisor |
| 2001-2005 | Timothy Butterfield PhD <i>Sarcomere number following strain injury in skeletal muscle</i> | Supervisor |
| 1999-2004 | Robson Lemos PhD <i>Modeling the deformation of skeletal muscle contraction</i> | Co-Supervisor |
| 1998-2004 | Andrea Clark PhD <i>Heterogeneous patellofemoral articular cartilage mechanical and biological response to compression and anterior cruciate ligament transection</i> | Supervisor |
| 1998-2003 | Motoshi Kaya PhD <i>Coordination of cat hindlimb muscles</i> | Supervisor |
| 2001-2003 | Sean Craig MSc <i>Effects of in-vivo joint loading on articular cartilage chondrocyte viability</i> | Supervisor |
| 2000-2003 | Sang-Kuy Han MSc <i>Articular cartilage modeling in the 3-D patellofemoral joint contact</i> | Co-supervisor |
| 2002-2003 | David Longino MSc <i>Botulinum toxin and a new animal model of muscle weakness</i> | Supervisor |
| 1999-2003 | Hae-Dong Lee PhD <i>History-dependent properties of force production in in-situ and in-vivo skeletal muscle</i> | Supervisor |
| 1999-2002 | Rachel Schachar MSc <i>Effects of active length changes on steady-state force production in mammalian skeletal muscle</i> | Supervisor |
| 1997-2002 | Azim Jinha MSc <i>Analyses of Muscle Force Predictions Based on Optimization</i> | Supervisor |
| 1999-2002 | Sylvain Couillard MSc <i>Cartilage deformation of the feline patellofemoral joint obtained from laser scanning</i> | Supervisor |
| 1999-2000 | Salvatore Federico MSc <i>Biomechanical analysis of articular cartilage in joint contact</i> | Co-Supervisor |
| 1995-2000 | Joanne Archambault PhD <i>Induction of matrix metalloproteinases in tendon</i> | Supervisor |
| 1997-2000 | Wendy Carvalho MSc <i>Structural changes of unipennate skeletal muscle during isometric contractions</i> | Supervisor |
| 1997-1999 | Hae-Dong Lee MSc <i>Force depression during contractions</i> | Supervisor |
| 1994-1997 | Ming-Ming Liu MSc <i>Dynamic muscle force predictions from EMG signals using Artificial Neural Networks</i> | Supervisor |

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|-----------|---|------------|
| 1992-1997 | Tim Koh PhD <i>Regulation of sarcomere number in the growing rabbit tibialis anterior</i> | Supervisor |
| 1994-1997 | Jason Karp MKin <i>Motor unit recruitment order for isometric, concentric and eccentric voluntary contractions</i> | Supervisor |
| 1991-1996 | Murray Maitland PhD <i>Longitudinal measurement of tibial motion relative to the femur during passive displacements and femoral nerve stimulation in the ACL-deficient cat model of osteoarthritis</i> | Supervisor |
| 1990-1996 | Evelyne Hasler PhD <i>In-vivo knee loading before and after ACL transection in an animal model of osteoarthritis</i> | Supervisor |
| 1992-1996 | Marco Vaz PhD <i>Mechanism of muscle vibrations during stimulated and voluntary isometric contractions of mammalian skeletal muscle</i> | Supervisor |
| 1993-1995 | Greg Kawchuk MSc <i>The characterization of functional tissue compliances in the human lumbar spine</i> | Supervisor |
| 1990-1995 | Todd Allinger PhD <i>Stability and the descending limb of the force length relation in mouse skeletal muscle-A theoretical and experimental examination</i> | Supervisor |
| 1993-1995 | Joanne Archambault MSc <i>Clinical aspects of overuse tendon injury and experimental aspects of tendon properties</i> | Supervisor |
| 1989-1993 | Antonio Guimaraes PhD <i>The EMG-force relation of the cat soleus muscle</i> | Supervisor |
| 1987-1990 | Lynda Read MSc <i>A 2D knee model applied to alpine skiing</i> | Supervisor |

Graduate Students

Present

| | | |
|------|---|-----------------------|
| 2022 | Armaan Sekhon, MSc, Biomedical Engineering | Supervisor |
| 2022 | Mauricio Delgado, PhD, Kinesiology | Supervisor |
| 2021 | Daryl Chamber, MSc, Kinesiology | Co-Supervisor |
| 2021 | Nathan Boon-van Mossel, MSc, Kinesiology | Supervisor |
| 2021 | Hannah Smith, MSc, Biomedical Engineering | Supervisor |
| 2020 | Ainsley Smith, MSc, Biomedical Engineering | Supervisory Committee |
| 2020 | Shuyue Liu, PhD, Kinesiology | Supervisor |
| 2020 | Isabel Aldrich-Witt, MSc, Kinesiology | Supervisor |
| 2020 | Matthew Zukowski, MSc, Kinesiology | Supervisor |
| 2020 | Nada Abughazaleh, PhD, Biomedical Engineering | Supervisor |
| 2019 | Sophia Poscente, MSc, Kinesiology | Supervisory Committee |
| 2019 | Tim van der Zee, PhD, Biomedical Engineering | Supervisory Committee |
| 2019 | Margaret (Meng) Li, MSc, Kinesiology | Supervisor |
| 2018 | Bryan Yu, MSc, Kinesiology | Supervisor |
| 2018 | Michael Baggaley, PhD, Kinesiology | Supervisory Committee |
| 2017 | Baaba Sekyiwa Otoo, PhD, Biomedical Engineering | Supervisor |
| 2016 | Franziska Onasch, PhD, Kinesiology | Supervisor |
| 2016 | Scott Sibole, PhD, Biomedical Engineering | Supervisor |

2015 Amir Hamedzadeh, PhD, Biomedical Engineering Supervisory Committee

Past

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|-----------|--|-----------------------|
| 2017-2022 | Arash Khassestarash, PhD, Kinesiology | Supervisory Committee |
| 2020-2021 | Natalie Yeung, MSc, Kinesiology | Supervisory Committee |
| 2019-2021 | Anupriya Singh, PhD, Biomedical Engineering | Supervisory Committee |
| 2014-2021 | Graham MacDonald, PhD, Kinesiology | Supervisor |
| 2020-2021 | Ashna Subramaniam, MSc, Kinesiology | Co-Supervisor |
| 2018-2021 | Drew Lawson, MSc, Kinesiology | Supervisor |
| 2019-2021 | David Yang, MSc, Medical Science | Supervisory Committee |
| 2016-2020 | Kevin Boldt, PhD, Kinesiology | Supervisor |
| 2016-2020 | Lindsay Gorell, PhD, Kinesiology | Supervisor |
| 2015-2020 | Seong-Won Han, PhD, Kinesiology | Supervisor |
| 2017-2020 | Nathaniel Morris, MSc, Kinesiology | Supervisor |
| 2016-2020 | Austyn Matheson, PhD, Biomedical Engineering | Supervisory Committee |
| 2016-2020 | Kotaybah Hashlamoun, PhD Biomedical Engineering | Supervisory Committee |
| 2014-2019 | Jaqueline Lourdes Rios, PhD, Kinesiology | Supervisor |
| 2015-2018 | Alexander Chen, MSc, Kinesiology | Supervisor |
| 2014-2018 | Maurice Mohr, MSc, Kinesiology | Supervisory Committee |
| 2010-2018 | Ryan Lewinson, MD/PhD, Biomedical Engineering | Supervisory Committee |
| 2013-2017 | Yasir Al-Saffar, PhD, Kinesiology (U. Malaysia, visiting) | Co-Supervisor |
| 2015-2017 | Shuyue Liu, MSc, Kinesiology | Supervisor |
| 2012-2017 | Kelsey Collins, PhD, Kinesiology | Supervisor |
| 2009-2017 | Brandon Hisey, MD/PhD, Medicine/Biomedical Engineering | Supervisor |
| 2012-2017 | Krysta Powers, PhD, Kinesiology | Supervisor |
| 2012-2017 | Matt Jordan, PhD, Medical Science | Supervisor |
| 2014-2016 | Baaba Skyiwa Otoo, MSc, Biomedical Engineering | Co-Supervisor |
| 2013-2016 | Maria Engel (Yamamoto), MSc, Biomedical Engineering | Supervisor |
| 2013-2016 | Kevin Boldt, MSc, Kinesiology | Supervisor |
| 2013-2016 | Scott Sibole, MSc, Biomedical Engineering | Supervisor |
| 2014-2015 | SungYong (Kevin) Shin, MSc | Supervisory Committee |
| 2014-2015 | Hendrik Enders, PhD, Kinesiology | Co-Supervisor |
| 2009-2015 | Rafael Fortuna, PhD, Kinesiology | Supervisor |
| 2010-2015 | Mike DuVall, PhD, Kinesiology (Biomedical Engineering) | Supervisor |
| 2012-2015 | Kaleena Johnston, MSc, Kinesiology | Supervisor |
| 2014-2015 | Sam Dorosz, MSc, Biomedical Engineering | Supervisory Committee |
| 2015 | Heiliane Fontana, PhD, Kinesiology | Co-Supervisor |
| 2010-2014 | Kaveh Pourakbar Saffar, PhD, Mechanical & Manufacturing Eng | Supervisory Committee |
| 2012-2014 | Eng Kuan Moo, PhD, Kinesiology | Supervisor |
| 2011-2014 | Nada Abughazaleh, MSc, Biomedical Engineering | Supervisor |
| 2011-2014 | Anthony Killick, MSc, Kinesiology | Supervisor |
| 2010-2014 | Sigrun Matthiasdottir, MSc, Kinesiology (Biomedical Engineering) | Supervisor |
| 2009-2014 | Conrad Tang, MSc, Kinesiology | Supervisor |
| 2010-2013 | Ryan Madden, MSc, Kinesiology (Biomedical Engineering) | Supervisor |
| 2010-2013 | Andrew Sawatsky, MSc, Kinesiology | Supervisor |
| 2009-2010 | Mike Duvall, MSc, Kinesiology | Supervisor |
| 2006-2012 | Audree McKenzie, MSc, Kinesiology | Supervisor |
| 2008-2011 | Lin Liu, MSc, Engineering | Co-Supervisor |

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|-----------|---|-----------------------|
| 2005-2010 | Aliaa Youssef, PhD, Kinesiology | Supervisor |
| 2004-2011 | Doug Bourne, PhD, Kinesiology | Supervisor |
| 2009 | Debora Cantergi, Universidade Federal do Rio Grande do Su Brazil, MSc | Co advisor |
| 2009 | Jared Fletcher, PhD, Kinesiology | Supervisory Committee |
| 2008-2010 | Helen Buie, PhD, Mechanical & Manufacturing Eng | Supervisory Committee |
| 2007-2009 | Brandon Hisey, MSc, Kinesiology | Supervisor |
| 2007-2009 | Neal Austin, MSc, Kinesiology | Supervisor |
| 2007-2010 | Sarah Manske | Supervisory Committee |
| 2007 | Jackie Thurston, MSc | Supervisory Committee |
| 2007 | Tiffany Edgecombe | Supervisory Committee |
| 2006-2008 | Matt Gotch, MSc Biomedical Engineering | Co-Supervisor |
| 2006-2008 | Megan Yaraskavitch, MSc, Kinesiology | Supervisor |
| 2006-2008 | Eva Szabo, Msc, Engineering | Supervisor |
| 2006 | Murray Heber, MSc, Medical Science | Supervisory Committee |
| 2005-2008 | Ashi Mehta, MSc, Engineering | Supervisor |
| 2005 | Sam Walcott, PhD, Cornell University | Supervisory Committee |
| 2004-2010 | Tim Leonard, PhD, Kinesiology | Supervisor |
| 2004 | Michael Butcher | Supervisory Committee |
| 2003-2009 | Sang Kuy Han, PhD, Engineering | Supervisor |
| 2003-2007 | Karen Weiss-Bundy, MSc, Kinesiology | Supervisor |
| 2002-2008 | Eun-Jeong Lee, PhD Kinesiology | Supervisor |
| 2002-2006 | Gholamreza Lemraasky | Co-Supervisor |
| 2002-2005 | Prism Schneider | Supervisory Committee |
| 2002-2004 | Andrew Betik, PhD | Supervisor |
| 2002-2004 | Jolene Lepp, PhD | Supervisor |
| 2001-2005 | Tim Butterfield, PhD | Supervisor |
| 2001-2005 | Danny Peterson, PhD | Supervisor |
| 2001-2005 | Ali Oskouei, PhD | Supervisor |
| 2000-2004 | Sabina Bruehlmann | Supervisory Committee |
| 1998-2004 | Andrea Clark PhD | Supervisor |
| 1998-2003 | Motoshi Kaya PhD | Supervisor |
| 2001-2003 | Sean Craig MSc | Supervisor |
| 2000-2003 | Sang-Kuy Han MSc | Co-supervisor |
| 2002-2003 | David Longino MSc | Supervisor |
| 1999-2003 | Hae-Dong Lee PhD | Supervisor |
| 1999-2002 | Rachel Schachar MSc | Supervisor |
| 1997-2002 | Azim Jinha MSc | Supervisor |
| 1999-2002 | Sylvain Couillard MSc | Supervisor |
| 1999-2000 | Salvatore Federico MSc | Co-Supervisor |
| 1995-2000 | Joanne Archambault PhD | Supervisor |
| 1997-2000 | Wendy Carvalho MSc | Supervisor |
| 1997-1999 | Hae-Dong Lee MSc | Supervisor |
| 1994-1997 | Ming-Ming Liu MSc | Supervisor |
| 1992-1997 | Tim Koh PhD | Supervisor |
| 1994-1997 | Jason Karp MKin | Supervisor |
| 1991-1996 | Murray Maitland PhD | Supervisor |
| 1990-1996 | Evelyne Hasler PhD | Supervisor |
| 1992-1996 | Marco Vaz PhD | Supervisor |
| 1993-1995 | Greg Kawchuk MSc | Supervisor |

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| 1990-1995 | Todd Allinger PhD | Supervisor |
| 1993-1995 | Joanne Archambault MSc | Supervisor |
| 1989-1993 | Antonio Guimaraes PhD | Supervisor |
| 1987-1990 | Lynda Read MSc | Supervisor |

External Examiner/Examining Committee Activity

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|-----------|---|
| 2022 | Arash Khassetarash (PhD, Kinesiology, Supervisory Committee Member) <i>Repeated bout effects and musculoskeletal loading during prolonged downhill running</i> |
| 2021 | Natalie Yeung (MSc, Kinesiology, Examination Committee Member) <i>Feedback responses must disengage from postural control to initiate rapid movements</i> |
| 2021 | David Yang (MSc, Medical Sciences, Examination Committee Member) <i>Contracture and spasticity: mechanisms of activity-based training and objective assessment in cerebral palsy</i> |
| 2020 | Michael Esposito (MSc, Biomedical Engineering, Examination Committee Member) <i>Effects of midsole cushioning stiffness of Achilles tendon stretch during running</i> |
| 2020 | Inaihá Benincá (MSc, Rehabilitation Sciences, Federal University of Santa Catarina, Araranguá) <i>The effects of immersion depth and speed on the ground reaction forces for walking and running in water</i> |
| 2020 | Austyn Matheson (PhD, Biomedical Engineering, Supervisory Committee Member) <i>Proteoglycan-4 concentration and biomechanical function in equine joint disease, exercise, and in vitro cartilage repair</i> |
| 2020 | Kotaybah Hashlamoun (PhD, Biomedical Engineering, Supervisory Committee Member) <i>On the permeability and diffusivity of articular cartilage</i> |
| 2020 | Keenan Barry MacDougall (MSc, Kinesiology, Supervisory Committee Member) <i>Additional in-series compliance does not affect the length dependence of activation in rat medial gastrocnemius</i> |
| 2019 | Tim Davison (PhD, Computer Science, External Examiner) <i>LifeBrush: Dynamic Illustration for the Bimolecular Mesoscale</i> |
| 2019 | Gustavo Morais (MSc, University of Sao Paulo, Riberão Preto School of Physical Education and Sport, External Examiner) <i>Eccentric exercise: mechanical loading of the knee joint and its contribution to osteoarthritis in mice.</i> |
| 2019 | Rachel Sondergaard (PhD, Neuroscience, Cumming School of Medicine, External Examiner) <i>Cerebellar dysfunction as a core pathophysiologic mechanism of idiopathic dystonia</i> |
| 2019 | Collen Chemerka (BSc, Medical Engineering, University of Applied Sciences, Koblenz, Germany, External Reviewer) <i>Effects of overtraining on the knee joint in mice</i> |
| 2019 | Olli Ohtonen (PhD, Sport and Health Sciences, University of Jyväskylä, Finland, External Reviewer) <i>Biomechanics in cross-country skiing skating technique, measurement techniques of force production and ski properties</i> |
| 2018 | Jørgen Danielsen (PhD, Medicine and Health Sciences, Norwegian University of Science and Technology, External Examiner) <i>Energetics and dynamics of double poling cross country skiing</i> |
| 2017-2018 | Caroline Göpfert (PhD, Sport and Health Sciences, University of Jyväskylä, Finland, External Reviewer) <i>Biomechanics of speed adaptation and functionality of arm swing in cross-country skiing</i> |
| 2014-2018 | Maurice Mohr (PhD, Kinesiology, Supervisory Committee Member) <i>Lower extremity muscle activation following a previous knee injury: implications for post-traumatic knee osteoarthritis</i> |
| 2010-2018 | Ryan Lewinson (MD/PhD, Biomedical Engineering, Supervisory Committee Member) <i>Prescription of specialized footwear for individuals with knee osteoarthritis</i> |
| 2018 | Guomin Ren (PhD, Cumming School of Medicine, Examination Committee Member) |

- Inflammatory profiling in early osteoarthritis*
- 2017 Caroline Göpfert (PhD, Faculty of Sport and Health Sciences, University of Jyväskylä)
- 2017 Robert Csapo, PhD (Habilitation, Sport Science, Leopold-Franzens-University Innsbruck, Expert)
- 2016 Scott Seamone (PhD, Biological Science, Candidacy, Internal/External Examiner)
- Elasmobranch muscle structure and mechanical properties 4 P*
- 2016 Baaba Skyiwa Oto (MSc, Biomedical Engineering, Examination Committee Member)
- Impact of knee joint loading on site-specific cartilage gene expression in a porcine model*
- 2016 Parth Iyer (MSc, Mechanical Engineering, Internal/External Examiner)
- Development of a real-time performance measurement system for sprint starts*
- 2016 Daniel Comaduran-Marquez (MSc, Biomedical Engineering, Internal/External Examiner)
- Design and development of a multichannel current-EMG system for coherence analysis*
- 2016 Aleen Pangka (PhD, Kinesiology, Internal/External Examiner)
- Biomechanical measures of the muscle-bone unit in postmenopausal females*
- 2016 George Lawrence Powell (PhD, Biological Sciences, Internal/External Examiner)
- Evolution of dermatocranial shape in horned lizards (phrynosoma)*
- 2014-2015 SungYong (Kevin) Shin (MSc, Kinesiology, Committee Member)
- Integrin alpha1beta1 protects against signs of PTOA in the articular cartilage of the knee through a mechanism that involves EGFR Signalling*
- 2015 Sam Dorosz (MSc, Biomedical Engineering, Committee Member)
- Effect of Synovial Fluid on Boundary Lubrication at a Meniscus – Cartilage Biointerface*
- 2015 Ryan Lewinson (PhD, Biomedical Engineering, Committee Member)
- Prescription of specialized footwear for individuals with knee osteoarthritis*
- 2015 Joanna Weber (PhD, Mechanical & Materials Engineering, Queens University, External Examiner)
- Mechanical stimulation of chondrocytes and intracellular calcium signaling*
- 2015 Tuomo Silvast (PhD, Applied Physics, University of Eastern finland, External Examiner)
- Contrast enhances computed tomography of articular cartilage*
- 2015 Benjamin Hoffman (PhD, Human Mvmt Studies and Nutritional Sciences, External Examiner)
- A biomechanical analysis of exercise-induced muscle damage in humans*
- 2015 Stephen Cull (PhD, Mechanical and Manufacturing Engineering Candidacy, External Examiner)
- Application of a continuum model to bone*
- 2015 Leah Sparrow (MSc, Veterinary Medicine, External Examiner)
- 2010-2014 Kaveh PourAkbar Saffar (PhD, Biomedical Engineering, Committee Member)
- Biomechanical aspects of carbon nanotube as a reinforcing scaffold for bone tissue*
- 2014 Kate Jones (MSc, Chiropractic, External Examiner)
- The effect of sacroiliac manipulation lumbar extensor muscle endurance in asymptomatic individuals*
- 2014 Lindsay Gorrell (MRes, External Examiner)
- Dose optimisation of cervical spinal manipulative therapy and its effect on mechanical neck pain*
- 2013 Nathan Murray Solbak (MSc, Kinesiology, Neutral Chair)
- Quantifying biomarkers of osteoarthritis in normal sheep synovium - a baseline*
- 2009-2012 Alex Hume (MSc, Biological Sciences, Committee Member)
- 2012 Stefan Hoerzer (PhD, Kinesiology, Internal/External Examiner)
- Functional groups in running biomechanics*
- 2011 Andrey Melnikov (PhD, Mechanical and Manufacturing Engineering, Examining Committee)
- Continuum mechanical model of the cardiac muscle*
- 2011 Derek Rutherford (PhD, Biomedical Engineering, Dalhousie University, External Examiner)
- Factors affecting knee joint muscle activation patterns during gait in individuals with knee osteoarthritis*
- 2011 Kathleen Faccia (PhD, Archaeology, External Examiner)
- Exploring age and activity related changes in prehistoric cis-baikal hunter-gatherer fisheries: A*

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| | <i>micro-CT analysis of cortical canal microstructure</i> |
| 2011 | Wolfgang Seiberl (PhD, Technischen Universität München, External Examiner) |
| 2010 | John Holash (PhD, Kinesiology, Examining Committee) |
| 2010 | Sharifah SS Shikh (MSc, University of Malaysia, March) |
| | <i>Development of an alternative prosthetic socket fabrication method: the hydrostatic cast system</i> |
| 2010 | Marcus J Freeman (PhD, University of Guelph, External Examiner, July) |
| | <i>Longitudinal sarcomere dynamics of skeletal muscle</i> |
| 2010 | Pete Rizun (PhD, Dept of Physics, Examining Committee) |
| 2009 | Soraya Janet Bailey (MSc, Civil Engineering, External Examiner, April) |
| | <i>The effects of long-term fatigue and creep loading on healing ligaments at normal physiologic loads</i> |
| 2009 | Zainisha Vasanji (PhD, Kinesiology, Neutral Chair/Candidacy) |
| 2009 | Ni Diao (MSc, Cardiovascular/Respiratory Sciences, External Examiner) |
| 2008 | Tamara Glen, (MSc, Gastrointestinal Sciences, Medicine, External Committee Member) |
| 2007 | Daniel Hahn (PhD, Technische Universität München, November) |
| 2007 | David Rouffet (PhD, Université Claude Bernard Lyon 1, June) <i>Study of muscular activation using surface electromyography methodological considerations for human movement analysis</i> |
| 2006 | Elizabeth Kelly (MSc, Program of Biomedical Engineering, External Examiner) |
| | <i>Functional gap junction communication and its mechanobiological role in the outer annulus fibrosus</i> |
| 2006 | Michelle Zec (MD, PhD, External Examiner) |
| | <i>In vitro characterization of fatigue damage in the medial collateral ligament of the knee</i> |
| 2005 | Victor Valderrabano (PhD, Kinesiology, Neutral Chair) |
| | <i>Ankle Osteoarthritis – Biomechanical and orthopaedic aspects</i> |
| 2005 | David Bereznick (PhD, University of Waterloo, External Examiner) |
| | <i>Lumbar manipulation: quantification and modification of the external kinetics affecting the presence and site of cavitation</i> |
| 2005 | Nathan James B. Kendrick (MSc, Internal/External Examiner) |
| | <i>Human observation and computer analysis of human running gaits</i> |
| 2004 | Yichun Sun (PhD, Internal/External Examiner) |
| | <i>Wave-intensity analysis of right ventricular diastolic suction</i> |
| 2004 | Marije van der Werf (MSc, Internal/External Examiner) Colloquium |
| | <i>Linear cell arrays and cell isolation in the inner and outer annulus fibrosus</i> |
| 2000 | Eric Snively (MSc, Examining Committee) |
| | <i>Functional Morphology of the Tyrannosaurid Arctometatarsus</i> |
| 1998-2006 | Rachid Ait-Haddou, PhD |
| | <i>Molecular ratchets in biology</i> |

External Referee for Promotion/Tenure/Nomination

2021

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| Dr. Jenna Monroy, Promotion to Associate Professor | Claremont Colleges |
| Dr. Michael Hahn, Promotion to Professor | University of Oregon |
| Dr. Matthew Gage, Promotion to Professor | University of Massachusetts Lowell |

2020

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| Dr. Jing Xian Li, Promotion to Professor | University of Ottawa |
| Dr. Anja Niehoff, Promotion to Adjunct Professor | University of Cologne |

2019

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| Dr. Alex Scott, Promotion to Professor | University of British Columbia |
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| Dr. Joe Quadrilatero, Promotion to Professor | University of Waterloo |
| Dr. Kharma Foucher, Promotion to Associate Professor | University of Illinois at Chicago, IL |
| Dr. Mark King, Personal Title of Chair | Loughborough University, UK |
| Dr. Matthew Tresch, Promotion to Professor with Tenure | Northwestern University, IL |

2018

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| Dr. Ross Miller, Promotion to Professor with Tenure | University of Maryland |
| Dr. Jonas Rubenson, Promotion to Professor with Tenure | Penn State University |

2017

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| Dr. Silvia Blemker, Promotion to Professor with Tenure | University of Virginia |
| Dr. Joanna Wakefield-Scurr, Promotion to Professor with Tenure | University of Portsmouth, UK |

2016

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| Dr. Anne Silverman, Promotion to Associate Professor with Tenure | Colorado School of Mines |
| Dr. Johnny Huard, Promotion to Professor with Tenure | UT Health, Texas |

2015

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| Dr. Bradley Davidson, Promotion to Associate Professor with Tenure | University of Colorado, Denver |
| Dr. Noor Asuan Abu Osman, Promotion to Professor | University of Malaya |
| Dr. Kenton Kaufman, Promotion to Distinguished Mayo Clinic Investigator | Mayo Clinic |

2014

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| Dr. David Altman, Promotion with Tenure | Willamette University |
| Dr. Yingxin Gao, Promotion to Associate Professor with Tenure | Cornell University |
| Dr. Christopher Powers, Promotion to Professor with Tenure | University of Southern California |
| Dr. Stephen Waldman, Promotion to Professor | Ryerson University |
| Dr. Loren Chiu, Promotion to Associate Professor with Tenure | University of Alberta |

2013

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| Dr. Scott McLean, Promotion to Associate Professor with Tenure | University of Michigan |
| Dr. Noor Azuan Abu Osman, Promotion to Professor | University of Malaya |
| Dr. Peter Keir, Promotion to Professor with Tenure | McMaster University |
| Dr. Edward (Ned) Debold, Promotion to Associate Professor with Tenure | University of Massachusetts |

2012

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| Dr. Blaine Hoshizaki, Promotion to Full Professor | University of Ottawa |
| Dr. Rami Korhonen, Associate Professor with Tenure | University of Oulu |
| Dr. Chunfeng Zhao, Promotion to Professor | Mayo Clinic |
| Dr. Belinda Murphy, Promotion to Associate Professor | University of Malaya |
| Dr. Fatimah Ibrahim, Promotion to Professor | University of Malaya |

2011

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| Dr. Thomas Quinn, Promotion to Professor | McGill University |
| Dr. Fluck, Review of Faculty Position | University of Zurich |
| Dr. Wendy Murray, Promotion to Associate Professor | Northwestern University |
| Dr. Joel Lenovaz, Promotion to Assistant Professor | University of Saskatchewan |
| Dr. Kornelia Kulig, Promotion to Professor | University of Southern California |
| Dr. Kenton Kaufman, Distinguished Mayo Clinic Investigator | Mayo Clinic |
| Dr. Darryl Thelen, Promotion to Professor | University of Wisconsin |
| Dr. Hanspeter Frei, Promotion to Associate Professor | Carleton University |

Dr. Gongbing Shan, Promotion to Professor
2014Dr. Larry Holt, Professor Emeritus

University of Lethbridge
Dalhousie University

2010

Dr. Joan Sanders, Promotion to full Professor
Dr. Dan Ferris, Promotion to full Professor
Dr. Sylvia Blemker, Promotion to Associate Professor
Dr. Richard Neptune, Promotion to full Professor
Dr. Antonio Preto Veloso, Promotion to full Professor
Dr. Heidi-Lynn Ploeg, Promotion to Associate Professor
Dr. Cheryl Kozey, Research Professorship Nomination

University of Washington
University of Michigan
University of Virginia
The University of Texas at Austin
University of Lisbon
The University of Wisconsin
Dalhousie University

2009

Dr. Kornelia Kulig, Catherine Worthingham Fellows Nomination
Dr. Susan Brooks, Promotion to Associate Professor
Dr. Benjamin J. Fregly, Promotion to Professor
Dr. Lesley Brown, Promotion to Professor

University of Southern California
University of Michigan
University of Florida
University of Lethbridge

2008

Dr. S. Waldman, Promotion to Associate Professor
Dr. John Runciman, Promotion to Professor
Dr. David Pierotti, Promotion to Professor
Dr. Steve Kautz, Promotion to Professor
Dr. Peter McCarthy, Promotion to Professor

Queen's University
University of Guelph
Northern Arizona University
University of Florida
University of Glamorgan

2007

Dr. John Barden
Dr. Greg Cutlip NIOSH
Dr. Kenton Kaufam, Distinguished Alumni
Dr. John Bertram

University of Regina
South Dakota State University
University of Calgary

2006

Dr. Joan Bechtold

University of Minnesota

2005

Dr. Daniel P. Ferris
Dr. Steve Lehman
Dr. Christopher Jacobs
Dr. Chunfeng Zhao

University of Michigan
University of California, Berkley
Stanford University
Mayo Clinic College of Medicine

2004

Dr. David Sanderson
Dr. Kenton Kaufman
Dr. Richard Neptune
Dr. Keith Williams

University of British Columbia
Mayo Clinic College of Medicine
The University of Texas at Austin
University of California, Davis

2003

Dr. Jack Dennerlein
Dr. John Chow
Dr. Danny Pincivero

Harvard University
Florida University
University of Toledo

Summer Students and Special Projects

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|-------------------------|--------------------|---|
| 2022 summer | Dhairya Desai | NSERC USRA Summer Studentship, May 1 – Aug 31 |
| 2022 summer | Wejdaan Faridi | NSERC USRA Summer Studentship, May 1 – Aug 31 |
| 2022 summer | Chris Tiessen | BME-Schulich Summer Studentship, May 1 – Aug 31 |
| 2022 summer | Riya Kalaga | BME-McCaig Summer Studentship, May 1 – Aug 31 |
| 2022 summer | Torri Heiser | Alberta Spine Foundation Summer Studentship, May 1 – Aug 31 |
| 2022 summer-2023 winter | Ireland Lawson | Kinesiology Undergraduate Research Scholarship, May 1 – Feb 28 |
| 2022 summer | Claire Timmermann | Summer Student, May 1 – Feb 28 |
| 2022 summer | Gavin Thomas | PURE Summer Studentship, May 1 – Aug 31 |
| 2021 fall-winter | Elaine Nguyen | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2021 fall-winter | Darsh Tripani | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2021 fall | Heron Medeiros | ELAP Brazilian Undergraduate Exchange Student, Sep 1 – Dec 31 |
| 2021 summer | Sarah Abramovic | Swiss Visiting MSc Student, May 1 – Dec 31 |
| 2021 summer | Armaan Sekhon | Volunteer, May 1, 2021 – Apr 30, 2022 |
| 2021 summer | Maria Hernandez | Summer Volunteer, May 1 – Aug 31 |
| 2021 summer | Torri Heiser | Summer Student, May 1 – Aug 31 |
| 2021 summer | Sara Housh | Summer Student, May 1 – Aug 31 |
| 2021 summer | Patricia Sharleen | Summer Student, May 1 – Aug 31 |
| 2021 summer | Maleeka Malik | BME/Faculty of Science Summer Studentship, May 1 – Aug 31 |
| 2021 summer | Wejdaan Faridi | PURE Summer Studentship, May 1 – Aug 31 |
| 2021 summer | Asmi Multani | BME/Faculty of Science Summer Studentship, May 1 – Aug 31 |
| 2021 summer | Jason Xie | HYRS Summer Student, July 1 – Aug 31 |
| 2021 summer | Erica Yakubu | HYRS Summer Student, July 1 – Aug 31 |
| 2020 fall-winter | Daniyya Chaudry | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 fall-winter | Taylor Pigott | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 fall-winter | Jeff Ilg | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 fall-winter | Tanya Cherppukaran | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 fall-winter | Spencer Ames | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 fall-winter | Darius Ramrattan | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2020 summer | Jeff Ilg | NSERC USRA Summer Studentship, May 1 – Aug 31 |
| 2020 summer | Shabit Hassan | PURE Summer Studentship, May 1 – Aug 31 |
| 2020 summer | Muzammil Nasir | CONNECT! NSERC CREATE Summer Studentship, May 1 -Aug 31 |
| 2020 summer | Darius Ramrattan | CONNECT! NSERC CREATE Summer Studentship, May 1 -Aug 31 |
| 2020 summer | Faizan Syed | McCaig Institute R. R. Singleton Summer Student, May 1 – June 30 |
| 2020 summer | Ty Moline | Summer Student, May 1 – Aug 31 |
| 2020 winter | Jonas Schmidt | German Visiting Undergraduate, Feb 24 – Jun 26 |
| 2019 fall | Armaan Sekhon | Undergraduate Honours Student, Sep 1 – Apr 30 |
| 2019 summer | Asmi Multani | HYRS Summer Student, July 1 – Aug 31 |
| 2019 summer | Muzammil Nasir | CONNECT! NSERC CREATE Summer Student, May 1 – Aug 31 |
| 2019 summer | Sadhiq Nazeer | CONNECT! NSERC CREATE Summer Student, May 1 – Aug 31 |
| 2019 summer | Jeff Ilg | McCaig Institute R. R. Singleton Summer Studentship, May 1 – Aug 31 |
| 2019 summer | Taylor Pigott | Markin USRP Summer Studentship, May 1 – Aug 31 |
| 2019 winter | Helen Adam | German Visiting Undergraduate, Mar 11 – Jul 29, 2019 |
| 2019 winter | Robert Graichen | German Visiting Undergraduate, Mar 1 – Sep 1, 2019 |
| 2018 fall | Viviane Frasson | Brazilian Visiting PhD Student, Sep 1, 2018 – Aug 31, 2019 |
| 2018 fall | Kale Weigel | Undergraduate Honours Student, Biochemistry, Sep 1, 2018 – Apr 30, 2019 |
| 2018 fall | Stephanie Crites | Undergraduate Honours Student, Kinesiology, Sep 1, 2018 – Apr 30, 2019 |
| 2018 summer | Julia Beaumont | HYRS Summer Student, July 1 – Aug 31 |

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| 2018 summer | Sherry Mahmood | Undergrad. Honours Student, Health Sciences, May 1, 2018 – April 30, 2019 |
| 2018 summer | Brennan O'Yeung | Biomedical Engineering Undergraduate Student, volunteer, May 1 – Aug 31 |
| 2018 summer | Maria Hernandez | PURE Summer Studentship, May 1 – Aug 31 |
| 2018 summer | John Michaiel | CIHR Summer Studentship, May 1 – Aug 31 |
| 2018 summer | Ross Crichton | McCaig Institute R. R. Singleton Summer Studentship, May 1 – Aug 31 |
| 2018 summer | Jeff Shin | McCaig Institute R. R. Singleton Summer Studentship, May 1 – Aug 31 |
| 2018 summer | Matteo Biglioli | CONNECT! NSERC CREATE Summer Student, May 1 – Aug 31 |
| 2018 summer | Neum Jelani | CONNECT! NSERC CREATE Summer Student, May 1 – Aug 31 |
| 2018 winter | Colleen Chemerka | German Visiting Undergraduate Student, Apr 1 – Sep 30 |
| 2018 winter | Daiani de Campos | Brazilian Exchange Undergraduate Student, Jan 10 – Jul 9 |
| 2018 winter | Gustvo Paroschi de Morais | MSc, Brazilian Visiting MSc Student, Mar 1 – Aug 31 |
| 2018 winter | Nicolas Collao Alonso | ELAP, Chilean Visiting MSc Student, Jan 25 – Jul 25 |
| 2017 fall | Faruk Örtes | Turkish Visiting PhD Student, Nov 14, 2017 – Nov 30, 2018 |
| 2017 fall | Tobias Göcking | German Visiting MSc Student, Oct 2 – Dec 20 |
| 2017 fall | Victoria Armstrong | Undergraduate Honours Student, Kinesiology, Sept 1 – Apr 30 |
| 2017 fall | Michael Moroz | Undergraduate Honours Student, Biomedical Sciences, Sept 1 – Apr 30 |
| 2017 fall | Lars Kooijman | Dutch Visiting MSc Student, Sep 1 – Nov 13 |
| 2017 fall | Elske Kranenburg | Dutch Visiting Undergrad Student, Sep 4 – Dec 21 |
| 2017 summer | Curtis Ostertag | HYRS Summer Student, July 1 – Aug 31 |
| 2017 summer | Madeleine McKenzie | Science Undergraduate Student, Concordia U., volunteer, May 1 – Aug 31 |
| 2017 summer | Saad Luqman | Biomedical Engineering Undergraduate Student, volunteer, May 1 – Aug 31 |
| 2017 summer | Shaelyn Jones | Biomedical Engineering Undergraduate Student, volunteer, May 1 – Aug 31 |
| 2017 summer | Kalvin Wu | Markin USRP Summer Studentship, May 1 – Aug 31 |
| 2017 summer | Carissa Chung | Alberta Innovates Summer Studentship, May 1 – Aug 31 |
| 2017 summer | Michael Moroz | CIHR Summer Studentship, May 1 – Aug 31 |
| 2017 summer | Jenice Ma | CIHR Summer Studentship, May 1 – Aug 31 |
| 2017 summer | John Michaiel | McCaig Institute R. R. Singleton Summer Studentship, May 1 – Aug 31 |
| 2017 summer | Hannah Kirchhübel | German Visiting Undergrad Student, May 1 - Jun 11 |
| 2016 fall/winter | Tanja Höpfl | German Visiting Undergrad Student, Sep 19 - Mar 30 |
| 2016 fall | Koen Wishaupt | Dutch Visiting Undergrad Student, Aug 29 – Dec 9 |
| 2016 fall | Martin Gröber | German Visiting MSc Student, Aug 8 – Oct 7 |
| 2016 summer | Alina Arvisais | HYRS Summer Student, July 1 – Aug 31 |
| 2016 summer | James Mather | Alberta STEP Program, May 1 – Aug 31 |
| 2016 summer | Loretta Ko | Alberta STEP Program, May 1 – Aug 31 |
| 2016 summer | Sophia Poscente | Markin USRP Summer Studentship, May 1 – Aug 31 |
| 2016 summer | Charlie Wang | AIHS Summer studentship, Jul 1 – Aug 31 |
| 2016 summer | Tabitha Hawes | NSERC USRA Summer Studentship, May 1 – Aug 31 |
| 2016 summer | Anthony Issler | CIHR Summer Studentship, May 1 – Aug 31 |
| 2016 summer | Michael Moroz | NSERC USRA Summer Studentship, May 1 – Aug 31 |
| 2016 Summer | Jahaan Ali | Summer Studentship, May 1 – Jul 31 |
| 2016 winter | Stefan Bastings | Dutch Visiting Undergrad Student, IEC, Feb 16 - Jul 8 |
| 2016 winter | Anouk Weemaes | Dutch Visiting MSc Student, Feb 3 – Jun 17 |
| 2016 winter | Ellis van der Sanden | Dutch Visiting MSc Student, Feb 3 – Jun 17 |
| 2016 winter | Francisco Cuenca Fernandez | Spanish Visiting PhD Student, Jan 7 – Apr 20 |
| 2015 fall | Sven Friese | German Visiting Undergrad Student, Sept 15 – Oct 21 |
| 2015 fall | Manja van Wissen | Dutch Visiting Undergrad Student, Aug 26 – Nov 16 |
| 2015 fall | Susanne Ellens | Dutch Visiting Undergrad Student, Aug 26 – Nov 16 |
| 2015 fall | Mikko Finnilae | Finnish Visiting Postdoc, Aug 24 – Dec 16 |
| 2015 fall | Simo Ojanen | Finnish Visiting PhD Student, Aug 24 – Dec 16 |

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| 2015 fall | Sonja Waeckerlin | Markin USRP Student, Sept 1 – Feb 28 |
| 2015 summer | Craig Martis | USRA Summer Studentship, May 1 – Aug 31 |
| 2015 summer | Dening Wang | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2015 summer | Jennifer O'Reilly | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2015 summer | Myles Borthwick | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2015 summer | Paul Riek | AIHS Summer Studentship, May 1 – Aug 31 |
| 2015 summer | Si (David) Yong Kim | AIHS Summer Studentship, May 1 – Aug 31 |
| 2015 summer | Sudeepta Aurka | Markin USRP Student, May 1 – Aug 31 |
| 2015 summer | Svetlana Kuznestova | PURE Summer Studentship, May 1 – Aug 31 |
| 2015 summer | Thomas Zhang | USRA Summer Studentship, May 1 – Aug 31 |
| 2015 summer | Tristan McSwiney | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2015 summer | Nordan Flaaten | Summer Student, May 1 – Aug 31 |
| 2015 summer | Jahaan Ali | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2015 spring | Ester Mende | German Visiting MSc Student, Mar 30 – May 31 |
| 2015 spring | Franziska Onasch | German Visiting MSc Student, May 19 – July 23 |
| 2015 winter | Andrea Zignoli | Italian Visiting Student, Mar 22- Sept 19 |
| 2015 winter | Fanny Bertram | IFMA Visiting Student, Mar 9 – Aug 7 |
| 2015 winter | Heiliane Fontana | Brazilian Visiting PhD Student (ELAP), Jan 3 – May 3 |
| 2014 fall | Noah (Jiabin) Yu | Chinese Visiting Student, Nov 13, 2014 – Nov 13, 2015 |
| 2014 fall | Jesus Sanchez | Brazilian Visiting Student, Oct 14 – Dec 31 |
| 2014 fall | Stef van der Hoorn | MSc student, Netherlands, Sept 1 – Nov 15 |
| 2014 fall | Jarno Senz | MSc student, Netherlands, Sept 1 – Nov 15 |
| 2014 summer | Paul Riek | HYRS Summer Student, July 1 – Aug 31 |
| 2014 summer | Wolfgang Sieberl | Academic Advisor, August 16 - Oct 1 |
| 2014 summer | Jonas Fischer | Switzerland, June 11 - July |
| 2014 summer | Alexis Jones | URSA Summer Studentship, May 1 – Aug 31 |
| 2014 summer | Svetlana Kuznetsova | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2014 summer | Hilda Antwi-Nsiah | AIHS Summer Studentship, May 1 – Aug 31 |
| 2014 summer | Alex Li | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2014 summer | Jens Herzog | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2014 summer | Vivian Wang | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2014 summer | Sean Crooks | PURE Summer Studentship, May 1 – Aug 31 |
| 2014 summer | Violet Campbell | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2014 summer | Charmi Dholakia | OCSS Summer Studentship, May 1 – Aug 31 |
| 2014 spring | Aline Tambourindeguy | Brazil, March 1 – September 30 |
| 2014 spring | Remi Vin | IFMA Visiting Student, Mar 1 – Aug 31 |
| 2014 winter | Jan Stutz | Visiting Student, Switzerland, Jan 15 – Apr 30 |
| 2013 fall | Vaclav Cibera | Visiting PhD student, Czech Republic, Sept 1 – June 30 |
| 2013 fall | Robert Rockenfeller | Visiting Student, Germany, Sept 1 – Sept 30 |
| 2013 fall | Robbin Romijnders | Visiting Undergraduate Student, Netherlands, Sept 1 – Nov 30 |
| 2013 fall | Machiel Smits | Visiting Undergraduate Student, Netherlands, Sept 1 – Nov 15 |
| 2013 fall | Joeri Kerssies | Visiting Undergraduate Student, Netherlands, Sept 1 – Nov 15 |
| 2013 summer | Cory Meeuwisse | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2013 summer | Violet Campbell | NSERC USRA Student, May 1 – Aug 31 |
| 2013 summer | Kevin Boldt | NSERC USRA Student, May 1 – Aug 31 |
| 2013 summer | Sean Crooks | AIHS Summer Undergraduate Student, May 15 – Aug 15 |
| 2013 summer | Vivian Wang | Markin USRP Student, May 1 – Aug 31 |
| 2013 summer | Jens Herzog | NSERC CREATE CUSP Student, May 1 – Aug 31 |
| 2013 summer | Yasir Al-Saffar | Visiting PhD Student, University of Malaya, Malaysia, Jun 3 – May 2014 |

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| 2013 spring | Martina Chrastkova | Visiting PhD Student, Czech Republic, May 21 – Jun 30 |
| 2013 winter | James Fick | Visiting Scholar, University of Kuopio, Finland, Jan 16 – Mar 25 |
| 2013 winter | Stefan Stoek | Visiting Undergraduate Student, Netherlands, Jan 16 - Jun |
| 2013 winter | Nicole Stappers | Visiting Undergraduate Student, Netherlands, Jan 16 - Jun |
| 2013 winter | Heiliane Fontana | Visiting PhD student, Brazil, Jan 14 - Sept |
| 2012 fall | Markus von Kossel | Brazilian ELAP Student, Oct 11 – March 30 |
| 2012 fall | Fatemeh Aslanzadeh | Turkish Exchange Student, Oct 11- Sept 30 |
| 2012 fall | Atsuki Fukutani | Visiting Japanese Student, Sept 7 – August 5 |
| 2012 summer | Steven Piper | CMCC Visiting Student, Jul 3 – Aug 31 |
| 2012 summer | Hilda Antwi-Nsiah | Summer AHS - HYRS student, Jul 5 – Aug 16 |
| 2012 summer | Maria Yamamoto | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | Stephanie Vetsch | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | Vivian Wang | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | James Samson | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | Kerri MacGowan | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | Jens Herzog | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 summer | Sean Crooks | Visiting Undergraduate Student, May 1 – Aug 31 |
| 2012 winter | Elsa Vulliez | IFMA Visiting Student, Mar 19 – Aug 31 |
| 2012 winter | Roos van der Wijdeven | Visiting undergraduate student, Feb 13 – June 30 |
| 2012 winter | Ivo Buil | Visiting undergraduate student, Feb 13 – June 30 |
| 2012 winter | Krysta Lynn Powers | National Science Foundation, Visiting PhD Student, Jan 9 – Aug 31 |
| 2011 fall/winter | Eng Kuan Moo | University of Malaysia, Visiting PhD student, Sept – Apr 30 |
| 2011 fall/winter | Agnes Cochet | IFMA Visiting student, Sept 1 – Dec 31 |
| 2011 fall/winter | Raquel Lupion | Federal University of Rio Grande do Sol, Visiting undergraduate, Aug 1 – Feb 28 |
| 2011 summer | Cristina Michelutti | Volunteer, May – Aug 31 |
| 2011 summer | Christine Patterson | Volunteer, June 20 – Aug 31 |
| 2011 summer | Katrina Easton | University of Western Australia Visiting postdoc, June 26 – July 23 |
| 2011 summer | Davide Croci | University of Basel Visiting Medical Student, July 9 – Aug 5 |
| 2011 summer | Haakon Lenes | NSERC CREATE summer studentship ½, May 2 – June 30 |
| 2011 summer | Sean Crooks | NSERC CREATE summer studentship, May 1 – Aug 31 |
| 2011 summer | Maria Yamamoto | NSERC CREATE summer studentship ½, May 2 – Jun 30 |
| 2011 summer | Jens Herzog | May 1 - Aug 31 |
| 2011 winter | Cyril Decaix | Visiting student, IFMA, Feb 1 – Jul 31 |
| 2010 fall/winter | Anthony Killick | Volunteer, Sept 1 - Dec 31 |
| 2010 fall/winter | Debora Cantergi | Visiting Student, Brazil, ELAP, Oct 19 – Apr 18 |
| 2010 summer | Chelsea Saltys | HYRS, Alberta Heritage Foundation for Health Research, July 9 – Aug 18 |
| 2010 summer | Eng Kuan Moo | Visiting Student, University of Malaysia, May 18-Nov 18 |
| 2010 summer | Maria Yamamoto | Undergraduate student volunteer, May 1-Dec 31 |
| 2010 summer | Anthony Killick | NSERC CREATE summer studentship, May 1–Aug 31 |
| 2010 summer | Jens Herzog | summer studentship, May 1-Aug 31 |
| 2010 summer | Erica Woo | NSERC USRA summer studentship, May 1–Aug 31 |
| 2010 summer | Esther Chan | NSERC CREATE summer studentship, May 1–Aug 31 |
| 2010 summer | Marie Armstrong | AIHS summer studentship, May 1-Aug 31 |
| 2010 winter | Robert van der Straaten | Visiting student, University Zuyd, Netherlands, Mar 23-July 3 |
| 2010 winter | Martijn Koevoets | Visiting student, University Zuyd, Netherlands, Mar 23-July 3 |
| 2010 winter | Robert van der Marel | Visiting Student, Netherlands, Feb 1-Dec 31 |
| 2010 winter | Fernando Lemos | Visiting student from Brazil, ELAP, Jan 4 - June 30 |
| 2009 fall/winter | Siru Turunen | University of Kuopio, Finland, Visiting MSc student, Nov |
| 2009 fall/winter | Marie Armstrong | Markin-Flanagan Summer studentship |

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| 2009 fall | Clemence Barraud | IFMA, Aug 31-Dec 18 |
| 2009 summer | Sarah Holub | HYRS Alberta Heritage Foundation for Health Research, July 6-Aug 13 |
| 2009 summer | Erica Giles | NSERC USRA, University of Victoria, May 1-Aug 31 |
| 2009 summer | Caitlin Logan | NSERC CREATE, University of Calgary, May 1-Aug 31 |
| 2009 summer | Mike Duvall | PURE, University of Calgary, May 1-Aug 31 |
| 2009 winter | Lena Zastrow | PhD Visiting Student, Universita Rome TRe, Apr 14-May 1 |
| 2009 winter | Corinne Wiederkehr | Visiting Student, Zurich, Feb-June |
| 2009 winter | Wim Wouters | Visiting Student, Eindhoven University of Technology, Feb15-June 23 |
| 2009 winter | Jonas Rubenson | Visiting Professor, University of Western Australia, Jan 19-Jan 30 |
| 2009 winter | Daniela Emmenegger | Visiting Student, ETH Zurich, Feb.-July 30 |
| 2008 fall | Daan Baars, Walter-Neils Luitwieler | Visiting Students, The Hague University, Aug 1- Nov 29 |
| 2008 fall | Rafael Fortuna | Visiting Student, Porto Alegre, Brazil, Aug 18 - Dec 31 |
| 2008 summer | Shermin Kazemkhani | PhD Visiting Student, Tehran, Iran, May 26 - Feb 28 |
| 2008 summer | Andrew Wu | NSERC USRA, Yale University, May 1 - Aug 31 |
| 2008 summer | Jena Hall | NSERC USRA, Queen's University, May 1 - Aug 31 |
| 2008 summer | Dianne Ikeda | NSERC USRA, University of Calgary, May 1 - Aug 31 |
| 2008 summer | Mike Duvall | NSERC USRA, University of Calgary, May 1-Aug 31 |
| 2008 | Kevin Chi Kwan Wong | Engineering Internship Program-Academic Mentor |
| 2008 winter | Yunus Arslan | PhD Visiting Student, Istanbul University, Feb 4-July 31 |
| 2008 winter | Rachel Nilwik | MSc Visiting Student, University of Maastricht, Feb 4 – July 4 |
| 2007 fall | Simon Steib | German Student, Internship, Friedrich-Alexander-Universitaet Erlangen-Nuernberg, Sept 17-May 8 |
| 2007 summer | Duhi Yu | Visiting Student, Tokyo, Japan |
| 2007 summer | Guillermo Rey Ley and Javier Fresan | Undergraduate Visiting Students-Spain |
| 2007 summer | Sarah Jardine | Canadian Memorial College of Chiropractors Sports Resident |
| 2007 winter | Marjolein Blaauboer | Amsterdam Graduate Student, Jan 1-Sept 2007 |
| 2007 winter | Tim Kieran and Chris Weiland | Netherland Student Trainees, Human Kinetic Technology, Jan 1- Sept |
| 2006 fall | Michiel Punt and Diederik Postuiterweer | Netherland Student Trainees |
| 2006 summer | Caitlin Logan | Markin-Flanagan Summer Studentship |
| 2006 summer | Jamie Benham | NSERC Undergraduate Research Award |
| 2006 summer | Mustaali Raj | NSERC Undergraduate Research Award |
| 2006 winter | Quentin Dozolme | IFMA |
| 2006 winter | Alfio Grillo | University of Catania |
| 2006 winter | Patrick Esser and Jos Peeters | Netherland Student Trainees |
| 2005 fall | Carolina Niewola-Saszkowski | |
| 2005 fall | Wouter Beerepoot | TU Delft, Netherlands Trainee |
| 2005 summer | Megan Yaraskavitch | NSERC Undergraduate Student Research Award |
| 2004 winter | Nicolas Trouillet | IFMA |
| 2004 winter | Laura Hinz | Markin-Flanagan Summer Studentship |
| 2004 winter | Cintia de la Roche | PhD Sandwich, CAPES, Brazil |
| 2004 summer | Laura Hinz | NSERC Undergraduate Student Research Award |
| 2004 fall | Safi Saad, Joel Lockwood | |
| 2004 fall | Renaud Feger | IFMA |
| 2003 winter | Seong Kim | Volodymyr Amiot-High School Enrichment Program |
| 2003 winter | Lenaic Gifford | |
| 2003 summer | Rob Mutch | Markin-Flanagan Summer Studentship |
| 2003 fall | Salvatore Federico, Alfio Grillo | Catania, Italy |
| 2002 winter | Dominique Forand, Ali Afzal, Keith Barrett, Emily Zhang, Graeme Campbell | |

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| 2002 | Salvatore Federico | University of Catania |
| 2002 fall | Sebastian Lachanat | |
| 2002 fall | Elizabeth Rousanoglou, Anja Niehoff | |
| 2001 | Salvatore Federico | University of Catania |
| 2001 winter | Olivier Desvignes | |
| 2001 winter | Mark Schuiling, Bernhard van Mazijk | |
| 2001 winter | Ernst Hansen | |
| 2001 summer | Harpreet Dosanjh, Brady Anderson, Sean Craig, Keith Barrett, Andrzej Stano, Jr. | |
| 2000 | Salvatore Federico | University of Catania |
| 2000 winter | Paul van der Kampen, Roel Leenen | |
| 2000 winter | Luciana Brondino | |
| 2000 summer | Hillary Dinning, Inna Kouperman, Tenzing Lhamu | |
| 2000 fall | Laurent Jobart | |
| 1999 summer | Inna Kouperman | |
| 1999 fall | Martine Brandsma, Melvin Roerdink, Laurent Favre | |
| 1998 summer | Sean Craig, Marike Bijtelaar, Monique van Loon, Marilyn Kats | |
| 1997 summer | Inna Kouperman, Wendy Carvalho, Boris Vasiliev, Eric Alcantara, Michael Pfeilmaier, Jason Karp | |
| 1996 summer | Pavel Mayzus, Boris Vasiliev, Erwin Hairwassers, David Scheele | |
| 1995 summer | Pavel Mayzus, Karen Seland, Boris Vasiliev, Tamar Epstein, Allene Huber | |
| 1994 summer | Allene Huber, Pavel Mayzus, Marion Borst, Irene Hilgersom | |
| 1992-1993 | Christoph Janssen, Rock Goldade | |
| 1992 summer | Jason Sokolosky, Rock Goldade | |
| 1991 summer | Jason Sokolosky, Grant Brooks | |
| 1990 summer | Brett Hessel, Seema Kamal, Susan Bornemisza, Moyez Charania, Sandro Nigg | |
| 1989 summer | Janet Wallace, Brett Hessel, Gayle Chaki | |
| 1988-1990 | Ron Platt | |
| 1988-1989 | Audrey Azad | |
| 1988-1989 | Andrew Carvalho | |
| 1988 | Lori Chaki-Farrington | |
| 1988 summer | Bradley Willcox, Evelyne Hasler | |
| 1987 summer | Claudio Nigg | |
| 1986-1987 | Lynda Read | |
| 1986 fall | Ewa Olsson | |

Research Assistants

| | |
|--------------|--------------------|
| 2015-present | Barbara Holash |
| 2013-present | Ruth Seerattan |
| 2013-present | Venus Joumaa |
| 2013-present | Andrew Sawatsky |
| 2002-present | Azim Jinha |
| 1991-present | Hoa Nguyen |
| 1988-present | Tim Leonard |
| 2014-present | Ziad Abusara |
| 2020-2021 | Eng Kuan Moo |
| 2008-2015 | Amanda Lottermoser |
| 1997-2011 | Holly Hanna |
| 2009-2011 | Jessica Fordham |
| 2009-2010 | Marlee Hahn |
| 2008-2009 | Megan Yaraskavitch |

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|-----------|----------------------|
| 2006-2010 | Ruth Seerattan |
| 2003-2005 | Linda Mills |
| 1997-1998 | Dale Oldham (50%) |
| 1996-1997 | Louise Hyndman (50%) |
| 1995 | Gary Jacques (50%) |
| 1993-1996 | Barbara Lees |
| 1990-1992 | Joan McAslan |
| 1989-1990 | Cathy Kellar |
| 1989-1990 | Brett Hessel |
| 1988-1989 | Angela Heetvelt |
| 1987-1988 | Sheila Abrahamse |
| 1987-1988 | Eileen Dunn |

Visiting Professors (> 1 month duration)

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| 2022 | Dr. Don Anderson, University of Iowa, Killam Visiting Professor (Jan-Jun 2022) |
| 2015-present | Dr. Robert Griffiths (Florey Neuroscience Institute, University of Melbourne, Australia, several visits) |
| 2019-2020 | Dr. Shahin Ketabi, Kurdistan University, Iran |
| 2018-2019 | Dr. Marco Vaz, Universidade Federal do Rio Grande do Sul, Porto Alegre, Brazil |
| 2018-2019 | Dr. Stela Mattiello, Federal University of Sao Carlos, Brazil |
| 2015-2017 | Dr. Fernando Diefenthaeler (Federal University of Santa Catarina, Brazil) |
| 2014 | Dr. Fernando Diefenthaeler (Federal University of Santa Catarina, Brazil) |
| 2014 | Dr. Isabelle Villemure, École Polytechnique de Montréal, Canada (departure December 2014) |
| 2012-2013 | Sergio Cunha, Brazil (departure February 2013) |
| 2007-2008 | Dr. Gudrun Schappacher, Universitat Graz, Austria (departure August 2008) |
| 2007-2008 | Dr. Markus Tilp, Universitat Graz, Austria (departure August 2008) |
| 2005-2006 | Dr. Dominique DeJaeger |
| 2004 | Dr. Marco Vaz |
| 2004 | Viviane Bortoluzzi Fração |
| 2001-2002 | Dr. Young-Doo Won |
| 2000 | Dr. Stefan Kornecki |
| 1999 | Dr. Yasuo Kawakami |
| 1999 | Dr. Alan Wilson |
| 1994-1995 | Dr. Cungen Hu |

CHIROPRACTIC REPORTS

2008 – present

Expert assessment / witness for 12 legal cases

JOURNAL ARTICLES

Submitted

1. Boldt K, Joumaa V, Turnbull J, Fedak PWM, Herzog W. The effect of whey protein supplementation and aerobic exercise training on mechanical and structural remodeling of cardiac muscle in rats. *European Journal of Applied Physiology*
Submitted: 04/24/2021
2. Frasson V, Johnson J, Baroni B, Herzog W. Do femoral version abnormalities play a role on hip function of patients with hip pain? *Journal of Orthopaedic & Sports Physical Therapy*
Submitted: 05/14/2021

3. Gorrell L, Conway PJ, Jinha A, Herzog W. Differences in biomechanical and electromyographic characteristics of successful vs. unsuccessful manual high-velocity, low amplitude spinal manipulation – an analysis of two descriptive studies. *Chiropractic and Manual Therapies*.
Submitted: 04/30/2020
4. Han S-w, Sawatsky A, Herzog W. The non-intuitive contributions of individual quadriceps muscles to patellar tracking. *Journal of Biomechanics*
Submitted: 12/14/2020
5. Han S-w, Sawatsky A, Herzog W. Effects of quadriceps muscle weakness and imbalance on patellar tracking. *Journal of Biomechanics*
Submitted: 03/31/2021
6. Han S-w, Sawatsky A, Herzog W. Changes in patellar tracking when reducing the magnitude of knee extensor torque: an animal model. *Journal of Orthopaedic Research*
Submitted: 07/07/2020
7. Hejazi S, Herzog W, Rouhi G. Alteration of lower limb kinematics and kinetics due to bilateral triple arthrodesis, *Foot & Ankle Specialist*
Submitted: 11/12/2021
8. Herzog W, Kevorkian P, Russell B, Alcantara J. The forces exerted by a chiropractor on pediatric patients during high-speed low amplitude spinal manipulations. *Journal of Manipulative and Physiological Therapeutics*
Submitted: 01/29/2021
9. Jordan MJ, Challis G, Morris N, Lane M, Barnet J, Herzog W. Assessing vertical jump force-time asymmetries in athletes with anterior cruciate ligament injury. *Aspetar Sports Medicine Journal*
Submitted: 11/07/2019
10. Kakavand R, Rasoulia A, Otoo BS, Komeili A, Herzog W. A numerical model for fibril remodeling in articular cartilage. *Computers in Biology and Medicine*
Submitted: 02/25/2022
11. Liu S, de Oliveira Medeiros HB, de Brito Fontana H, Herzog W. Passive force enhancement is not abolished by muscle shortening. *Journal of Biomechanics*
Submitted: 03/28/2022
12. Liu S, Joumaa V, Herzog W. Fast stretching of skeletal muscle fibres abolishes residual force enhancement. *Journal of Experimental Biology*.
Submitted: 01/12/2022
13. Ojanen S, Finnilae M, Korhonen RK, Herzog W, Rieppo L. Micro-computed tomography-based collagen orientation and anisotropy analysis of rabbit articular cartilage. *Annals of Biomedical Engineering*
Submitted: 10/21/2021
14. Orava H, Huang L, Ojanen SP, Mäkelä JTA, Finnilä MAJ, Saarakkala S, Herzog W, Korhonen RK, Töyräs J, Tanska P. Changes in subchondral bone structure and mechanical properties do not substantially affect cartilage mechanical responses. *Journal of Biomechanics*
Submitted: 09/08/2021
15. Orozco GA, Karjalainen K, Moo EK, Stenroth L, Tanska P, Rios JL, Tuomainen TV, Nissi MJ, Isaksson H, Herzog W, Korhonen RK. A musculoskeletal finite element model of rat knee joint for evaluating cartilage biomechanics during gait. *PLOS Computational Biology*.
Submitted: 08/27/2021
16. Reyes A, Delgado-Bravo M, Alvarez-Ruf J, Liendo R, Reimann Baptista R, Subiabre S, Tirado C, Begona U, Villalon J, Herzog W. Surface electromyograph activity of upper limb muscles during functional reaching tasks in individuals with subacromial impingement syndrome. *Clinical Biomechanics*
Submitted: 03/31/2022
17. Robinson KG, Lee SK, Akins RE, Herzog W, Shrader MW, Howard JJ. Use of collagenase clostridium hostolyticum to decrease muscle fiber bundle stiffness in cerebral palsy: determination of dose-response. *Journal*

of Biomechanics
Submitted: 07/17/2023

18. Smith IC, Herzog W. Changes in twitch characteristics associated with the anticipation and experience of electrical stimulation in adductor pollicis muscle of adult humans. *Journal of Applied Physiology*. Submitted: 07/08/2020
19. Smith IC, Collao N, Herzog W. Reductions in peak force and instantaneous stiffness by inorganic phosphate are enhanced at short sarcomere lengths in permeabilized slow skeletal muscle fibres of the rabbit. *Journal of Experimental Biology*. Submitted: 08/27/2020
20. Sibole S, Moo EK, Herzog W. Dynamic deformation calculation of articular cartilage and cells using resonance-driven laser scanning microscopy. Submitted: 04/14/2022

Accepted

1. Fukutani A, Herzog W. Residual force enhancement is attenuated for quick stretch conditions. *Journal of Biomechanics*. Accepted: 03/31/2022
2. Gorrell L, Onasch F, Conway P, Herzog W. Electromyographic responses of neck, back and limb outlet muscles associated with high-velocity, low-amplitude manual cervical and upper thoracic spinal manipulations of individuals with mild neck disability – a descriptive observational study. *Journal of Manipulative & Physiological Therapeutics*. Accepted: 03/18/2022
3. Herzog W. Methods and applications in striated muscle physiology. *Frontiers in Physiology*. Accepted: 04/06/2022
4. Lawson D, Jordan M, Herzog W. The effects of lead leg selection on bilateral landing force-time characteristics: return to sport testing implications. *Scandinavian Journal of Medicine in Science in Sports*. Accepted: 04/05/2022
5. Orozco GA, Ristaniemi A, Haghghatnejad M, Finnilae MAJ, Saarakkala S, Herzog W, Isaksson H, Korhonen RK. Adaptation of fibril-reinforced poroviscoelastic properties in rabbit collateral ligaments 8 weeks after anterior cruciate ligament transection. *Journal of Orthopaedic Research*. Accepted: 01/28/2022

Published

1. De Brito Fontana H, Herzog W (2022) Editorial: Does eccentric exercise stimulate sarcomerogenesis? (2022) *Journal of Sport and Health Science* 11:40-42. <https://doi.org/10.1016/j.jshs.2021.10.001>
2. Jordan M, Morris N, Nimphius S, Aagaard P, Herzog W (2022) Attenuated lower limb stretch-shorten-cycle capacity in ACL injured vs. non-injured female alpine ski racers: not just a matter of between-limb asymmetry. *Frontiers in Sports and Active Living* 4: 852701.
3. Jordan M, Morris N, Barnet J, Lawson D, Aldrich-Witt I, Herzog W (2022) Forecasting neuromuscular recovery after anterior cruciate ligament injury: athlete recovery profiles with generalized additive modelling. *Journal of Orthopaedic Research*. In Press. doi: 10.1002/jor.25302
4. Karjalainen K, Tanska P, Sibole S, Mikkonen S, Herzog W, Korhonen RK, Moo EK (2022) Effect of cells on spatial quantification of proteoglycans in articular cartilage of small animals. In Press. <https://doi.org/10.1080/03008207.2022.2048827>
5. Martins EC, Ruschel C, Roesler EM, Silvano GA, Peduzzi de Castro M, Herzog W, de Brito Fontana H (2022) Tensor fascia latae and gluteal muscles myoelectric responses to increasing levels of hip medial rotation torque. *Journal of Biomechanics* 132: 110944. In Press. <https://doi.org/10.1016/j.jbiomech.2022.110944>

6. Medeiros HBO, Silvano GA, Herzog W, Nunes MO, de Brito Fontana H (2022) Hip torques and the effect of posture in side-stepping with elastic resistance. *Gait & Posture* 93: 119-125.
7. Sibole S, Moo EK, Federico S, Herzog W (2022) The protective function of directed asymmetry in the pericellular matrix enveloping chondrocytes. *Annals of Biomedical Engineering* 50: 39-55. <https://doi.org/10.1007/s10439-021-02900-1>
8. Abusara Z, Haider I, Moo EK, Miller S, Timmermann S, Herzog W (2021) Chondrocyte morphology as an indicator of collagen network integrity. *Connective Tissue Research*. In Press. <https://doi.org/10.1080/03008207.2021.1922398>
9. Boldt KR, Joumaa V, Turnbull J, Fedak P, Herzog W (2021) Mechanical and structural remodeling of cardiac muscle following aerobic and resistance exercise training in rats. *Medicine & Science in Sports & Exercise* 53(8): 1583-1594. (Highlighted in ACSM's Sports Med. Bulletin)
10. Boldt K, Mattiello S, Joumaa V, Turnbull J, Fedak PWM, Herzog W (2021) Consumption of a high-fat-high-sucrose diet partly diminishes mechanical and structural adaptations of cardiac muscle following resistance training. *Physical Activity and Nutrition* 25(2): 8-14.
11. Boldt KR, Rios JL, Joumaa V, Herzog W (2021) Mechanical function of cardiac fibre bundles is partly protected by exercise in response to diet-induced obesity in rats. *Applied Physiology, Nutrition and Metabolism* 46:46-54. <http://dx.doi.org/10.1139/apnm-2020-0275>
12. Crites S, Joumaa V, Rios JL, Sawatsky A, Hart DA, Reimer RA, Herzog W (2021) Moderate aerobic exercise, but not dietary prebiotic fibre, attenuates losses to mechanical property integrity of tail tendons in a rat model of diet-induced obesity. *Journal of Biomechanics* 129:110798 In Press.
13. De Brito Fontana H, Herzog W (2021) The role of muscles in knee joint osteoarthritis. *Sports Orthopaedics and Traumatology* 37(2): 85-100. <https://doi.org/10.1016/j.orthtr.2021.02.005>
14. De Campos D, Orssatto LBR, Tajano GS, Herzog W, de Brito Fontana H (2021) Residual force enhancement in human skeletal muscles: a systematic review and meta-analysis. *Journal of Sport and Health Science*. In Press. <https://doi.org/10.1016/j.jshs.2021.05.006>
15. Fortuna R, Sawatsky A, Fuller JC, Herzog W (2021) The effects of HMB supplementation on muscle mass and strength in botox-injected and contralateral quadriceps femoris in rabbits. *Journal of Rehabilitation Medicine* 53: jrm00229.
16. Fukutani A, Isaka T, Herzog W (2021) Evidence for muscle cell-based mechanisms of enhanced performance in stretch-shortening cycle. *Frontiers in Physiology*: 11: 609553.
17. Fukutani A, Herzog W (2021) The stretch-shortening cycle effect is prominent in the reduced force state. *Journal of Biomechanics* 115:110136. <https://doi.org/10.1016/j.jbiomech.2020.110136>
18. Howard JJ, Herzog W. Skeletal muscle in cerebral palsy: from belly to myofibril. *Frontiers in Neurology* 12: 620852.
19. Huang L, Riihioja I, Tanska P, Ojanen S, Palosaari S, Kröger H, Saarakkala SJ, Herzog W, Korhonen RK, Finnilä MAJ (2021) Early changes in osteochondral tissues in a rabbit model of post-traumatic osteoarthritis. *Journal of Orthopaedic Research*. In Press. <http://doi.org/10.1002/jor.25009>
20. Joumaa V, Smith IC, Fukutani A, Leonard TR, Ma W, Mijailovich SM, Irving TC, Herzog (2021). Effect of active lengthening and shortening on small angle x-ray reflections in skinned skeletal muscle fibres. *International Journal of Molecular Science* 22 (16): 8526. (open access)
21. Joumaa V, Boldt KR, Han SK, Chun KJ, Herzog W (2021) Botox injections in paraspinal muscles result in low maximal specific force and shortening velocity in fast but not slow skinned muscle fibres. *Spine*. In Press. DOI: [10.1097/brs.0000000000004162](https://doi.org/10.1097/brs.0000000000004162)
22. Joumaa V, Fukutani A, Herzog W (2021) Energy cost of force production after a stretch-shortening cycle in skinned muscle fibres: Does muscle efficiency increase? *Frontiers in Physiology* 11: 567538.

23. Komeili A, Otoo B, Abusara Z, Sibole S, Federico S, Herzog W (2021) Chondrocyte deformations under mild dynamic loading conditions. *Annals of Biomedical Engineering* 49 (2): 846-857. <https://doi.org/10.1007/s10439-020-02615-9>
24. Mahmood S, Sawatsky A, Herzog W (2021) Increased force following muscle stretching and simultaneous fibre shortening: Residual force enhancement or force depression – That is the question? *Journal of Biomechanics* 116: 110216. In Press. <https://doi.org/10.1016/j.jbiomech.2020.110216>
25. Morais G, Chemerka C, Masson A, Seerattan RA, Da Rocha A, Krawetz R, Herzog W, Sanches Ramos da Silva A (2021) Excessive downhill training leads to early onset of knee osteoarthritis. *Osteoarthritis and Cartilage* 29(6): 870-881. doi.org/10.1016/j.joca.2021.03.016
26. Moo EK, Tanska P, Federico S, Al-Saffar Y, Herzog W, Korhonen R (2021) Collagen fibres determine the crack morphology in articular cartilage. *Acta Biomaterialia* 126: 301-314. doi.org/10.1016/j.actbio.2021.03.031
27. Moo EK, Herzog W, Le T, Seerattan RA, Pinguang B, Korhonen RK (2021) Deformation behaviours and mechanical impairments of tissue cracks in immature and mature cartilages. *Journal of Orthopaedic Research*. In Press. <https://doi.org/10.1002/jor.25243>
28. Morris N, Westerblad H, Jordan MJ, Heard M, Herzog W (2021) Electromechanical delay of the hamstrings following semitendinosus tendon autografts in return to competition athletes. *European Journal of Applied Physiology* 121: 1849-1858.
29. Morris N, Jordan MJ, Sumar S, van Adrichem B, Heard M, Herzog W (2021) Joint angle-specific impairments in rate of force development, strength, and muscle morphology after hamstring autograft. *Translational Sports Medicine* 4: 104-114. [doi:10.1002/tsm2.189](https://doi.org/10.1002/tsm2.189).
30. Otoo B, Li L, Hart DA, Herzog W (2021) Development of a porcine model to assess the effect of in-situ knee joint loading on site-specific cartilage gene expression. *Journal of Biomechanical Engineering* 144(2): 024502.
31. Power GP, Crooks S, Fletcher JR, MacIntosh BR, Herzog W (2021) Age-related reductions in the number of serial sarcomeres contribute to shorter fascicle lengths but not elevated passive tension. *Journal of Experimental Biology*. In Press. doi.org/10.1242/jeb.242172
32. Rios JL, Hart DA, Reimer R, Herzog W (2021) Prebiotic and exercise do not alter knee osteoarthritis in a rat model of established obesity. *Cartilage* 13 (2): 1456S-1466S.
33. Rytty S, Huang L, Tanska P, Tiulpin A, Panfilov E, Herzog W, Korhonen R, Saarakkala S, Finnilä M (2021) Automated analysis of rabbit knee calcified cartilage morphology using micro-computed tomography and deep learning. *Journal of Anatomy*. In Press. <https://doi.org/10.1111/joa.13435>
34. Schmidt J, Jinha A, Herzog W (2021) Sarcomere length measurement reliability in single myofibrils. *Journal of Biomechanics* 126: 110628. doi.org/10.1016/j.jbiomech.2021.110628
35. Smith IC, Ostertag C, O'Reilly J, Rios JL, Klancic T, MacDonald GZ, Collins KH, Reimer RA, Herzog W (2021) Contractility of permeabilized rat vastus intermedius muscle fibres following high-fat, high-sucrose diet consumption. *Applied Physiology, Nutrition, and Metabolism* 46(11): 1389-1399.
36. Smith IC, Onasch F, Krysciak K, Celichowski J, Herzog W (2021) Contractile history affects sag and boost properties of unfused tetanic contractions in human quadriceps muscle. *European Journal of Applied Physiology* 121:645-658. DOI: 10.1007/s00421-020-04561-9
37. Abughazaleh N, Krawetz R, Abusara Z, Herzog W (2020) The influence of maximal and submaximal cyclic concentric and eccentric exercise on chondrocyte death and synovial fluid proteins in the rabbit knee. *Clinical Biomechanics* 78:105095.
38. Afara IO, Sarin JK, Ojanen S, Finnilae MA, Herzog W, Saarakkala S, Korhonen RK, Toeyraes J (2020) Machine learning classification of articular cartilage integrity using near infrared spectroscopy. *Cellular and Molecular Bioengineering* 13:219-228. <https://doi.org/10.1007/s12195-020-00612-5>
39. Boldt KR, MacDonald GZ, Joumaa V, Herzog W (2020) Mechanical adaptations of skinned cardiac muscle in response to dietary-induced obesity during adolescence in rats. *Applied Physiology, Nutrition, and Metabolism* 45(8): 886-892. <https://doi.org/10.1139/apnm-2019-0555>

40. [Boldt K](#), [Han S-w](#), [Joumaa V](#), Herzog W (2020) Residual and passive force enhancement in skinned cardiac fibre bundles. *Journal of Biomechanics* 109:109953. <https://doi.org/10.1016/j.jbiomech.2020.109953>
41. [Boldt KR](#), [Joumaa V](#), [MacDonald G](#), [Rios JL](#), Herzog W (2020) Cardiac ventricular muscle mechanical properties through the first year of life in Sprague-Dawley rats. *Mechanisms of Ageing and Development* 192:111359. <https://doi.org/10.1016/j.mad.2020.111359>
42. [de Brito Fontana H](#), [de Campos D](#), [Sawatsky A](#), [Han S-w](#), [Herzog W](#) (2020) Why do muscles lose torque potential when activated within their agonistic group? *Journal of Experimental Biology* 7:223.
43. [Collins KH](#), [MacDonald GZ](#), [Hart DA](#), [Seerattan RA](#), [Rios JL](#), [Reimer RA](#), Herzog W (2020) Impact of age on host response to diet-induced obesity: development of joint damage and metabolic set points. *Journal of Sport and Health Science* 9: 132-139. <https://doi.org/10.1016/j.jshs.2019.06.004>
44. [Fukutani A](#), Herzog W (2020) Differences in stretch-shortening cycle and residual force enhancement between muscles. *Journal of Biomechanics* 112: 11040. <https://doi.org/10.1016/j.jbiomech.2020.110040>
45. [Han S-w](#), [Sawatsky A](#), [Jinha A](#), Herzog W (2020) Effect of vastus medialis loss on rabbit patellofemoral joint contact pressure distribution. *Journal of Applied Biomechanics* 36: 390-396. <https://doi.org/10.1123/jab.2020-0056>
46. [Hashlamoun K](#), [Abusara Z](#), [Ramirez-Torres A](#), [Grillo A](#), Herzog W, [Federico S](#) (2020) Fluorescence recovery after photobleaching: direct measurement of diffusion anisotropy. *Biomechanics and Modeling in Mechanobiology* 19:2397-2412. doi: 10.1007/s10237-020-01346-z
47. Herzog W (2020) Editorial: Lessons learned. *Journal of Applied Biomechanics* 36(2): 57-58.
48. Herzog W (2020) Editorial: Reflections on obesity, exercise, and musculoskeletal health. *Journal of Sport and Health Science* 9(2): 108-109.
49. [Jordan MJ](#), [Morris N](#), [Lane M](#), [Barnert J](#), [MacGregor K](#), [Heard M](#), [Robinson S](#), Herzog W (2020) Monitoring the return to sport transition after ACL injury: an Alpine ski racing case study. *Frontiers in Sports and Active Living* 2:12.
50. [Kajabi A](#), [Finniläe M](#), Herzog W, [Saarakkala S](#), [Korhonen R](#), [Nieminen M](#), [Casula V](#), [Ojanen S](#), [Nissi M](#) (2020) Multiparametric MR imaging assessment reveals early cartilage degeneration at 2 and 8 weeks after ACL transection in a rabbit model. *Journal of Orthopaedic Research* 2020(38): 1974 –1986. <https://doi.org/10.1002/jor.24644> (Award for Excellence in Basic, Clinical, and Translational Science from the Journal of Orthopaedic Research at the 2021 ORS meeting)
51. [Komeili A](#), [Luqman S](#), [Federico S](#), Herzog W (2020) Effect of cracks on the local deformations of articular cartilage. *Journal of Biomechanics*. 110: 109970.
52. [Moo EK](#), Herzog W (2020) Sarcomere lengths become more uniform over time in intact muscle-tendon unit during isometric contractions. *Frontiers in Physiology* 11:448.
53. [Moo EK](#), [Leonard TR](#), Herzog W (2020) The sarcomere force-length relationship in an intact muscle tendon unit. *Journal of Experimental Biology* 223(60): jeb215020.
54. [Morais G](#), [da Rocha A](#), [Neave L](#), [Lucas G](#), [Leonard T](#), [Carvalho A](#), [Sanchez Ramos da Silva A](#), Herzog W (2020) Chronic uphill and downhill exercise protocols do not lead to sarcomerogenesis in mouse skeletal muscle. *Journal of Biomechanics* 98:109469.
55. [Ojanen S](#), [Finnilä MA](#), [Mäkelä JT](#), [Saarela K](#), [Happonen E](#), Herzog W, [Saarakkala SJ](#), [Korhonen RK](#) (2020) Anterior cruciate ligament transection of rabbits alters composition, structure and biomechanics of articular cartilage and chondrocyte deformation 2 weeks post-surgery in a site-specific manner. *Journal of Biomechanics* 98: 109450.
56. [Smith IC](#), [Adam H](#), Herzog W (2020) A brief contraction has complex effects on summation of twitch pairs in human adductor pollicis. *Experimental Physiology* 105(4): 676-689.
57. [Smith IC](#), [Collao N](#), Herzog W (2020) The effects of inorganic phosphate on contractile function of slow skeletal muscle fibres are length dependent. *Biochemical and Biophysical Research Communications* 533(4): 818-823. <https://doi.org/10.1016/j.bbrc.2020.09.092>

58. Bulat M, Korkmaz N, Arslan Y, Herzog W (2019) Musculoskeletal simulation tools for understanding mechanisms of lower limb sports injuries. *Current Sports Medicine Reports* 18 (6): 210-216.
59. Dos Santos Cunha G, Reischak de Oliveira A, Vaz MA, Herzog W (2020) Maturity status effects on torque and muscle architecture of young soccer players. *Journal of Sports Sciences* 38(11-12): 1286-1295. <https://doi.org/10.1080/02640414.2019.1589908>
60. Fortuna R, Göcking T, Seiberl W, Herzog W (2019) Force depression following a stretch-shortening cycle depends on the amount of residual force enhancement established in the initial stretch phase. *Physiological Reports* 7(16): e14188.
61. Fukutani A, Herzog W (2019) Current understanding of residual force enhancement: cross-bridge component and non-cross-bridge component. *International Journal of Molecular Sciences* 20(21): 5479.
62. Fukutani A, Sawatsky A, Leonard T, Herzog W (2019) Contribution of the Achilles tendon to force potentiation in stretch-shortening cycle. *Journal of Experimental Biology* 222: jeb204032.
63. Fukutani A, Herzog W (2019) Influence of stretch magnitude on the stretch-shortening cycle in skinned fibres. *Journal of Experimental Biology* 222: jeb206557.
64. Fukutani A, Leonard T, Herzog W (2019) Does stretching velocity affect residual force enhancement? *Journal of Biomechanics* 89: 143 -147.
65. Geremia JM, Baroni BM, Bini RR, Lanferdini FJ, Rodriguez de Lima A, Herzog W, Vaz MA (2019) Triceps surae muscle architecture adaptations to eccentric training. *Frontiers in Physiology* 10: 1456.
66. Gorrell L, Conway P, Herzog W (2019) Reflex responses of neck, back and limb muscles to high-velocity, low-amplitude manual cervical and upper thoracic spinal manipulation of asymptomatic individuals – a descriptive study. *Journal of Manipulative and Physiological Therapeutics* 42 (8): 572-581. DOI: 10.1016/j.jmpt.2018.11.025
67. Han S-w, Sawatsky A, de Brito Fontana H, Herzog W (2019) Contribution of individual quadriceps muscles to knee joint mechanics. *Journal of Experimental Biology* 222 (6): jeb188292.
68. Hart DA, Herzog W, Reimer RA, Rios JL, Collins K (2019) Obesity: The impact on host systems affecting mobility and navigation through the environment. *European Medical Journal* 4 (1): 63-70.
69. Hessel A, Joumaa V, Eck S, Herzog W, Nishikawa K (2019) Optimal length, calcium sensitivity, and twitch characteristics of skeletal muscle from mdm mice with a deletion in N2A titin. *Journal of Experimental Biology* 222(12): jeb200840.
70. Herzog W. Passive force enhancement in striated muscle (2019) *Journal of Applied Physiology* 126(6): 1782-1789.
71. Herzog W (2019) The problem with skeletal muscle series elasticity. *BMC Biomedical Engineering* 1:28.
72. Herzog W (2019) Editorial: Could sport be part of pediatric obesity prevention and treatment? By Ring-Dimitriou et al. *Journal of Sport and Health Science* 8:348-349. <https://doi.org/10.1016/j.jshs.2019.04.001>
73. Howard J, Huntley JS, Kerr Graham H, Herzog W (2019) Intramuscular injection of collagenase clostridium histolyticum will decrease spastic muscle contracture for children with cerebral palsy. *Medical Hypotheses* 122: 126-128.
74. Johnston K, Moo EK, Jinha A, Herzog W (2019) On sarcomere length stability during isometric and post-active-stretch isometric contractions. *Journal of Experimental Biology* 222: 209924.
75. Karabulut D, Dogru SC, Lin YC, Pandy M, Herzog W, Arslan YZ (2019) Direct validation of model-predicted muscle forces in the cat hindlimb during walking. *ASME, Journal of Biomechanical Engineering* 142(5): 051014. <https://doi.org/10.1115/1.4045660>
76. Larkin-Kaiser KA, Howard JJ, Leonard T, Joumaa V, Gauthier L, Logan K, Orlik B, El-Hawary R, Herzog W (2019) Relationship of muscle morphology to hip displacement in cerebral palsy: a pilot study investigating changes intrinsic to the sarcomere. *Journal of Orthopaedic Surgery and Research* 14:187.

77. Komeili A, Chau W, Herzog W (2019) Effects of macro cracks on the load bearing capacity of articular cartilage. *Biomechanics and Modeling in Mechanobiology* 18(5): 1371-1381. <https://doi.org/10.1007/s10237-019-01149-x>
78. Komeili A, Abusara Z, Federico S, Herzog W (2019) Effect of strain rate on transient local strain variations in articular cartilage. *Journal of the Mechanical Behavior of Biomedical Materials* 95:60-66.
79. Leonard TR, Howard J, Larkin-Kaiser K, Joumaa V, Logan K, Orlik B, El Hawary R, Gauthier L, Herzog W (2019) Stiffness of hip adductor myofibrils is decreased in children with spastic cerebral palsy. *Journal of Biomechanics* 87:100-106.
80. Leumann A, Leonard T, Nüesch C, Horisberger M, Mündermann A, Herzog W (2019) The natural initiation and progression of osteoarthritis in the anterior cruciate ligament deficient feline knee. *Osteoarthritis and Cartilage* 27: 687-693.
81. Maleki M, Hashlamoun K, Herzog W, Federico S (2019) Effect of structural distortions on articular cartilage permeability under large deformations. *Biomechanics and Modeling in Mechanobiology* 19(1): 317-334. <https://doi.org/10.1007/s10237-019-01213-6>
82. Multani IS, Manji J, Tang M, Herzog W, Howard JJ, Kerr Graham H (2019) Sarcopenia, Cerebral Palsy and Botulinum Toxin A. *Journal of Bone & Joint Surgery Reviews* 7(8):e4.
83. Mustonen AM, Käkälä R, Finnilä M, Sawatsky A, Korhonen R, Saarakkala S, Herzog W, Paakkonen T, Nieminen P (2019) Anterior cruciate ligament transection alters the n-3/n-6 fatty acid balance in the lapine infrapatellar fat pad. *BMC Lipids in Health and Disease* 18:67.
84. Musumeci G, Szychlinska MA, Herzog W (2019) The “Journal of Functional Morphology and Kinesiology” Journal Club Series: Highlights on recent papers in exercise and osteoarthritis. *Journal of Functional Morphology and Kinesiology* 4(1): 7.
85. Rios JL, Ko L, Liu S, Sawatsky A, Joumaa V, Diefenthaler F, Hart DA, Reimer R, Herzog W (2019) The mechanical and biochemical properties of tail tendon in a rat model of obesity: effect of moderate exercise and prebiotic fibre supplementation. *Journal of Biomechanics* 88: 148-154. <https://doi.org/10.1016/j.jbiomech.2019.03.031>
86. Rios JL, Bomhof M, Reimer R, Hart D, Collins K, Herzog W (2019) Protective effect of prebiotic and exercise intervention on knee health in a rat model of diet-induced obesity. *Scientific Reports* 9: 3893.
87. Ronkainen AP, Fick J, Herzog W, Korhonen R, Tanska P (2019) Interrelationship of cartilage composition and chondrocyte mechanics after a partial meniscectomy in the rabbit knee joint - experimental and numerical analysis. *Journal of Biomechanics* 83: 65-75.
88. Abusara Z, Andrew SHJ, von Kossel M, Herzog W (2018) Menisci protect chondrocytes from load-induced injury. *Scientific Reports* 8:14150.
89. Boldt K, Rios J, Joumaa V, Herzog W (2018) Force properties of skinned cardiac muscle following increasing volumes of aerobic exercise in rats. *Journal of Applied Physiology* 125: 495-503.
90. Chen A, Herzog W (2018) Software for convenient and principled correction of artifacts in sonomicrometry. *Journal of Experimental Biology* 221 (11): jeb172726.
91. Chitsazan A, Herzog W, Abbasi M, Rouhi G (2018) Alterations of strain distribution in distal tibia after subtalar joint fusion: experimental and finite element investigations. *Journal of Medical and Biological Engineering* 38 (3): 469-481. <https://doi.org/10.1007/s40846-017-0330-5>.
92. Collins K, Sharif B, Reimer RA, Sanmartin C, Herzog W, Chin R, Marshall DA (2018) Association of metabolic markers with self-reported osteoarthritis among middle aged BMI-defined non-obese individuals: a cross-sectional study. *BMC Obesity* 5: 23. doi: 10.1186/s40608-018-0201-9. (SharedIt)
93. Collins K, Herzog W, Hart DA, Seerattan R, Reimer RA (2018) High-fat/high-sucrose diet-induced obesity results in joint-specific development of osteoarthritis-like degeneration in a rat model. *Bone and Joint Research* 7 (4): 274-281.
94. Collins K, Herzog W, Reimer R, Reno C, Heard B, Hart D (2018) Diet-induced obesity leads to pro-inflammatory alterations to the vitreous humour of the eye in a rat model. *Inflammation Research* 67 (2): 139-146.

95. Collins KH, Herzog W, MacDonald GZ, Reimer RA, Rios JL, Smith IC, Zernicke RF, Hart DA (2018) Obesity, metabolic syndrome, and musculoskeletal disease: common inflammatory pathways suggest a central role for loss in muscle integrity. *Frontiers in Physiology* 9: 112.
96. De Brito Fontana H, Han S-w, Sawatsky A, Herzog W (2018) The mechanics of agonistic muscles. *Journal of Biomechanics* 79: 15-20. <https://doi.org/10.1016/j.jbiomech.2018.07.007>
97. Fukutani A, Herzog W (2018) Residual force enhancement is preserved for conditions of reduced contractile force. *Medicine & Science in Sports & Exercise* 50(6): 1186-1191.
98. Herzog W (2018) The mysteries of eccentric muscle action. *Journal of Sports and Health Science* 7(3): 253-254. (Editorial)
99. Herzog W (2018) Why are muscles strong and require little energy in eccentric contractions? *Journal of Sports and Health Science* 7(3): 255-264.
100. Herzog W (2018) The multiple roles of titin in muscle contraction and force production. *Biophysical Reviews*: 10 (4): 1187-1199. DOI: 10.1007/s12551-017-0395-y. (SharedIt)
101. Herzog W (2018) Do recreational team sports provide fitness and health benefits? (Editorial) *Journal of Sport and Health Science* 7: 127-128.
102. Jordan MJ, Aagaard P, Herzog W (2018) A comparison of lower limb stiffness and mechanical muscle function in ACL-reconstructed, elite and adolescent alpine ski racers/ski cross athletes. *Journal of Sports and Health Science* 7(4): 416-424.
103. Joumaa V, Bertrand F, Liu S, Poscente S, Herzog W (2018) Does partial titin degradation affect sarcomere length non-uniformities and force in active and passive myofibrils? *American Journal of Physiology Cell Physiology* 315: C310-C318.
104. Ketola J, Karhula SS, Finnilä M, Korhonen R, Herzog W, Siltanen S, Nieminen MT, Saarakkala S (2018) Iterative and discrete reconstruction in the evaluation of the rabbit model of osteoarthritis. *Scientific Reports* 8: 12051.
105. Komeili A, Abusara Z, Federico S, Herzog W (2018) A compression system for studying depth-dependent mechanical properties of articular cartilage under dynamic loading condition. *Medical Engineering & Physics* 60: 103-108. <https://doi.org/10.1016/j.medengphy.2018.07.004>
106. MacDonald GZ, Mazara N, Herzog W, Power GP (2018) Mitigating the bilateral deficit: Reducing neural deficits through residual force enhancement and activation reduction. *European Journal of Applied Physiology* 118(9): 1911-1919.
107. Mahmoudian A, van Assche D, Herzog W, Luyten F. Towards secondary prevention of early knee osteoarthritis. *RMD Open* 4 (2): e000468.
108. Moo EK, Herzog W. Single sarcomere contraction dynamics in a whole muscle (2018) *Scientific Reports* 8: 15235.
109. Moo EK, Sibole SC, Han SK, Herzog W (2018) Three-dimensional micro-scale strain mapping in living biological soft tissues. *Acta Biomaterialia* 70 (1): 260-269.
110. Ojanen S, Finnilä M, Reunamo AE, Ronkainen AP, Mikkonen S, Herzog W, Saarakkala S, Korhonen RK (2018) Site-specific glycosaminoglycan content is better maintained in the pericellular matrix than the extracellular matrix in early post-traumatic osteoarthritis. *PLOS One* 13 (4): e0196203.
111. Rios JL, Boldt KR, Mather JW, Seerattan RA, Hart DA, Herzog W (2018) Quantifying the effects of different treadmill training speeds and durations on the health of rat knee joints. *Sports Medicine – Open* 4 (1):15.
112. Smith IC, Ali J, Power GA, Herzog W (2018) The sag response in human muscle contraction. *European Journal of Applied Physiology* 118 (5): 1063-1077.
113. Xia Y, Darling EM, Herzog W (2018) Functional properties of chondrocytes and articular cartilage using optical imaging to scanning probe microscopy. *Journal of Orthopaedic Research* 36(2): 620-631. DOI 10.1002/jor.23757
114. Collette J, Jinha A, Herzog W (2017) Mechanics of sarcomeres in series and instability. *Journal of Undergraduate Research in Alberta* 6:8-17 (JURA award for best paper 2017).

115. [Collins K](#), Hart DA, [Smith IC](#), [Issler A](#), Reimer RA, [Seerattan RA](#), [Rios JL](#), Herzog W (2017) Acute and chronic changes in rat soleus muscle after high-fat high-sucrose diet. *Physiological Reports* 5: e13270.
116. [Cuenca Fernandez F](#), [Smith IC](#), [Jordan MJ](#), McIntosh B, Lopez Contreras G, Arellano R, Herzog W (2017) Non-localized postactivation performance enhancement (PAPE) effects in trained swimmers: a pilot study. *Applied Physiology, Nutrition, and Metabolism* 42(10): 1122-1125. Doi: 10.1139/apnm-2017-0217.
117. [DuVall MM](#), [Jinha A](#), [Schappacher-Tilp G](#), [Leonard TR](#), Herzog W (2017) Differences in titin segmental elongation between passive and active stretch in skeletal muscle. *Journal of Experimental Biology* 220: 4418-4425. doi: 10.1242/jeb.160762
118. [Fortuna R](#), [Groeber M](#), [Seiberl W](#), [Power G](#), Herzog W. Shortening-induced depression is modulated in a time- and speed-dependent manner following a stretch-shortening cycle. *Physiological Reports* 5(12): e13279.
119. [Fortuna R](#), [Kirchhübel H](#), [Seiberl W](#), [Power GA](#), Herzog W. Force depression following a stretch-shortening cycle is independent of stretch peak force and work performed during shortening. *Scientific Reports* 8:1534. DOI:10.1038/s41598-018-19657-8.
120. [Fukutani A](#), [Joumaa V](#), Herzog W. Influence of residual force enhancement and elongation of attached cross-bridges on stretch-shortening cycle in skinned muscle fibres. *Physiological Reports* 5:313477.
121. Hart DA, [Fortuna R](#), Herzog W (2017) Messenger RNA profiling of the rabbits quadriceps femoris after repeat injections of botulinum toxin: Evidence for a dynamic pattern without further structural alterations. *Muscle and Nerve* 57 (3): 487-493.
122. Han SK, Ronkainen A, Saarakkala S, Rieppo L, Herzog W, Korhonen RK (2017). Alterations in structural macromolecules and chondrocyte deformations in lapine retropatellar cartilage 9 weeks after anterior cruciate ligament transection. *Journal of Orthopaedic Research* 36: 342-350. doi: 10.1002/jor.23650.
123. Herzog W. Skeletal muscle mechanics: Questions, problems and possible solutions (2017) *Journal of NeuroEngineering and Rehabilitation* 14:98.
124. Herzog W (2017) Editorial: Eccentric vs. concentric muscle contraction: That is the question. *Journal of Sport and Health Science* 6: 128-129. doi.org/10.1016/j.jshs.2017.01.006.
125. Herzog W (2017) Fairness in Olympic sports: How can we control the increasing complexity of doping use in high performance sports. *Journal of Sport and Health Science* 6(1): 47. doi.org/10.1016/j.jshs.2016.10.009.
126. Herzog W (2017) Running slow or running fast; that is the question: the merits of high intensity interval training. *Journal of Sport and Health Science* 6(1): 48. doi.org/10.1016/j.jshs.2016.10.001.
127. [Jordan M](#), Aagaard P, Herzog W (2017) Anterior cruciate ligament injury/reinjury in alpine ski racing: a narrative review. *Open Access Journal of Sports Medicine* 8: 71-83.
128. [Jordan MJ](#), Aagaard P, Herzog W (2017) Asymmetry and thigh muscle coactivity in fatigued ACL-reconstructed elite skiers. *Medicine and Science in Sports and Exercise* 49 (1): 11-20. doi:10.1249/MSS.0000000000001076.
129. [Jordan M](#), Doyle-Baker P, Heard M, Aagaard P, Herzog W (2017). A retrospective analysis of concurrent pathology in the CL reconstructed knees of elite alpine ski racers. *The Orthopaedic Journal of Sports Medicine* 5 (7): 2325967117714756.
130. [Joumaa V](#), Fitzowich A, Herzog W (2017) Energy cost of isometric force production after active shortening in skinned muscle fibres. *Journal of Experimental Biology* 220:1509-1515.
131. Lieber RL, Roberts T, Blemker S, Lee S, Herzog W (2017) Skeletal muscle mechanics, energetics and plasticity. *Journal of NeuroEngineering and Rehabilitation* 14:108.
132. [Maleki M](#), Martinuzzi RJ, Herzog W, [Federico S](#) (2017) Orthotropic hydraulic permeability of arrays of parallel cylinders. *Physical Review E* 96(3): 033112.
133. [Moo EK](#), Herzog W (2017) Unfolding of membrane ruffles of in situ chondrocytes under compressive loads. *Journal of Orthopaedic Research* 35 (2):304-310. doi:10.1002/jor.23260.
134. [Moo EK](#), Peterson D, [Leonard T](#), Kaya M, Herzog W (2017) In vivo muscle force and muscle power during near-maximal frog jumps. *PLOS ONE* 12 (3): e173415.

135. Moo EK, Leonard TR, Herzog W (2017) In vivo sarcomere lengths become more non-uniform upon activation in intact whole muscle. *Frontiers in Physiology* 8:1015. DOI: 10.3389/fphys.2017.01015
136. Onasch F, Killick A, Herzog W (2017) Is there an optimal pole length for double poling in cross country skiing? *Journal of Applied Biomechanics* 33(3): 197-202.-<http://dx.doi.org/10.1123/jab.2016-0071>
137. Powers K, Joumaa V, Jinha A, Moo EK, Smith IC, Nishikawa K, Herzog W (2017) Titin force enhancement following active stretch of skinned skeletal muscle fibers. *Journal of Experimental Biology* 220: 3110-3118.
138. Ziglioni A, Biral F, Pellegrini B, Jinha A, Herzog W, Schena F (2017) An optimal control solution of the predictive dynamics of cycling. *Sport Sciences for Health* 13(2): 381-393.
139. Abusara Z, Kossel M, Herzog W (2016) In vivo dynamic deformation of articular cartilage in intact joints loaded by controlled muscular contractions. *PLOS ONE* 11(1): e0147547.
140. De Brito Fontana H, Herzog W (2016) Vastus lateralis maximum force-generating potential occurs at optimal fascicle length regardless of activation level. *European Journal of Applied Physiology* 116: 1267-1277.
141. Boldt K, Killick A, Herzog W (2016) Quadrupedal locomotion-respiration entrainment and metabolic economy in cross-country skiers. *Journal of Applied Biomechanics* 32(1): 1-6. doi: 10.1123/jab.2014-0243.
142. Collins K, Sanmartin C, Chin R, Reimer R, Herzog W, Marshall DA (2016) Association of body mass index (BMI) and percent body fat among BMI-defined non-Obese middle-aged individuals: Insights from a population-based Canadian sample. *Canadian Journal of Public Health* 107 (6): e520-525. doi 10.17269/CJPH.107.5652.
143. Collins K, Hart DA, Reimer R, Seerattan R, Waters-Banker C, Sibole S, Herzog W (2016) High-fat high-sucrose diet leads to dynamic structural and inflammatory alterations in the rat vastus lateralis muscle. *Journal of Orthopaedic Research* 34: 2069-2078. doi:10.1002/jor.23230
144. Collins K, Paul HA Hart DA, Reimer R, Smith IC, Rios JL, Seerattan R, Herzog W (2016) A high-fat high-sucrose diet rapidly alters muscle integrity, inflammation and gut microbiota in male rats. *Scientific Reports* 6: 37278.
145. Corr DT, Herzog W (2016) A cross-bridge based model of force depression: can a single modification address both transient and steady-state behaviors? *Journal of Biomechanics* 49 (5): 726-734.
146. Egloff C, Hart DA, Hewitt C, Vavken P, Valderrabano V, Herzog W (2016) Joint instability leads to long-term alterations to knee synovium and osteoarthritis in a rabbit model. *Osteoarthritis and Cartilage* 24(6): 1054-1060.
147. Fick J, Ronakinen A, Madden R, Sawatzky A, Tiitu V, Herzog W (2016) Early in situ changes in chondrocyte biomechanical responses due to a partial meniscectomy in the lateral compartment of the mature rabbit knee joint. *Journal of Biomechanics* 49 (16): 4057-4064.
148. Follmer B, Dellagrana R, Pereira de Lima LA, Herzog W, Diefenthaler F (2016) Analysis of elbow muscle strength parameters in jiu jitsu practitioners. *Journal of Sports Sciences* 2016: 1-7. doi: 10.1080/02640414.2016.1267388.
149. Fortuna R, Power GA, Mende E, Seiberl W, Herzog W (2016) Residual force enhancement following shortening is speed dependent. *Scientific Reports* 5:21513 doi: 10.1038/srep21513.
150. Herzog, W. Letter to the Editor regarding Cornachione et al (2016) "The increase in non-cross-bridge forces after stretch of activated striated muscle is related to titin isoforms" (2016). *American Journal Physiology Cell Physiology* 311: C158-C159.
151. Herzog W (2016) The problem with running injuries. *Journal of Sport and Health Science*. 5(2): 171. doi:10.1016/j.jshs.2016.03.001 (Invited Editorial)
152. Herzog W, Schappacher-Tilp G, DuVall M, Leonard TR, Herzog J (2016) Residual force enhancement following eccentric contractions: a new mechanism involving Titin. *Physiology* 31: 300-312.
153. Herzog W (2016) Regarding: "Examining the relationship between sport and health among USA women: An analysis of the Behavioral Risk Factor Surveillance System" by Pharr and Lough. (Editorial) *Journal of Sports and Health Sciences* 5 (4): 402 doi: 10.1016/j.jshs.2016.09.001.

154. [Johnston K](#), [Jinha A](#), Herzog W (2016) The role of sarcomere length non-uniformities in residual force enhancement of skeletal muscle myofibrils. *Royal Society Open Science* 3 (3): 150657.
155. Jones A, [Power GA](#), Herzog W (2016) History dependence of the electromyogram: Implications for isometric steady-state EMG parameters following a lengthening or shortening contraction. *Journal of Electromyography and Kinesiology* 27:30-38.
156. Lewinson RT, Vallerand IA, [Collins KM](#), Wiley JP, Lun VMY, Patel C, Woodhouse LJ, Reimer RA, Worobets JT, Herzog W, Stefanyshyn DJ (2016) Reduced knee adduction moments for management of knee osteoarthritis: A three-month phase I/II randomized controlled trial. *Gait & Posture* 50: 60-68.
157. [Moo EK](#), [Fortuna R](#), [Sibole SC](#), [Abusara Z](#), Herzog W (2016) In vivo sarcomere lengths and sarcomere elongations are not uniform across an intact muscle. *Frontiers in Physiology* 7:187.
158. [Power G](#), [Flaaten N](#), Dalton B, Herzog W (2016) Age-related maintenance of eccentric strength: a study of temperature dependence. *Age* 38:43.
159. [Powers K](#), Nishikawa K, [Joumaa V](#), Herzog W (2016) Decreased force enhancement in skeletal muscle sarcomeres with a deletion in titin. *Journal of Experimental Biology* 219:1311-1316.
160. Ronkainen AP, Fick JM, Herzog W, [Korhonen RK](#) (2016) Site-specific cell-tissue interactions in rabbit knee joint articular cartilage. *Journal of Biomechanics* 49 (13): 2882-2890. 10.1016/j.jbiomech.2016.06.033
161. [Schappacher-Tilp G](#), Desch G, Herzog W (2016) Computing average passive forces in sarcomeres in length-ramp simulations. *PLOS Computational Biology* 12(6): e1004904.
162. [Smith IC](#), Bellissimo C, Herzog W, Tupling AR (2016) Can inorganic phosphate explain sag during unfused tetanic contractions of skeletal muscle? *Physiological Reports* 4: e13043.
163. [Wu JZ](#), Herzog W, [Federico S](#) (2016) Finite element modeling of finite deformable, biphasic biological tissues with transversely isotropic statistically distributed fibers: toward a practical solution. *Zeitschrift für Angewandte Mathematik und Physik* 67:26.
164. Akbarian D, Rouhi G, Mashhadi MM, Herzog W (2015) Biomechanics of cervical spine following implantation of a semi-constrained artificial disc with upward center of rotation: a finite element investigation. *Journal of Mechanics in Biology and Medicine* 15 (4):1550063.
165. Baroni BM, Pinto RS, Herzog W, [Vaz MA](#) (2015) Eccentric resistance training of the knee extensor muscle: training programs and neuromuscular adaptations. *Isokinetics and Exercise Science* 23 (3):183-198.
166. [Bourne D](#), [Moo EK](#), Herzog W (2015). Cartilage and chondrocyte response to extreme muscular loading and impact loading: Can in vivo pre-load decrease impact-induced cell death? *Clinical Biomechanics* 30 (6):537-545.
167. [Collins K](#), Hart DA, Reimer RA, [Seerattan RA](#), Herzog W (2015) Response to Diet-Induced Obesity Produces Time-dependent Induction and Progression of Metabolic Osteoarthritis in Rat Knees. *Journal of Orthopaedic Research* 34: 1010-1018 doi: 10.1002/jor.23103
168. [Collins K](#), Reimer R, [Seerattan R](#), [Leonard TR](#), Herzog W (2015) Using diet-induced obesity to understand a metabolic subtype of Osteoarthritis in rats. *Osteoarthritis and Cartilage* 23 (6):957-965.
169. [Collins KH](#), Paul HA, Reimer R, [Seerattan R](#), Hart DA, Herzog W (2015) Relationship between inflammation, the gut microbiota, and metabolic osteoarthritis development: studies in a rat model. *Osteoarthritis and Cartilage* 23 (11): 1989-1998. doi: 10.1016/j.joca.2015.03.014.
170. [Crooks S](#), [Power GA](#), Herzog W (2015) Aging is associated with reductions in fascicle length, sarcomere length and serial sarcomere loss. *Journal of Undergraduate Research Alberta* 5:16-20.
171. DeJaeger D, [Joumaa V](#), Herzog W (2015) Intermittent stretch training of rabbit plantarflexor muscles increases soleus mass and serial sarcomere number. *Journal of Applied Physiology* 118(12):1467-1473. doi:10.1152/jappphysiol.00515.2014.
172. Fick J, Ronkainen A, Herzog W (2015) Site-dependent biomechanical responses of chondrocytes in the rabbit knee joint. *Journal of Biomechanics* 48(15):4010-4019.

173. [Flaaten N](#), [Power GA](#), Herzog W (2015) Effects of temperature and angular velocity on eccentric force of an intrinsic thumb muscle. *Journal of Undergraduate Research* 5:21-29.
174. [Fortuna R](#), [Vaz MA](#), [Sawatsky A](#), Hart DA, Herzog W (2015) A clinically relevant BTX-A injection protocol leads to persistent weakness, contractile material loss, and an altered mRNA expression phenotype in rabbit quadriceps muscles. *Journal of Biomechanics* 48 (10):700-706.
175. [Herzog J](#), [Jinha A](#), Herzog W (2015) In situ titin properties at long lengths when Ig domain folding/unfolding is prevented. *Journal of Undergraduate Research in Alberta* 5:30-35.
176. Herzog W, [Powers KL](#), [Johnston K](#), [DuVall M](#) (2015) A new paradigm for muscle contraction: review. *Frontiers in Physiology*. 6:174. (11th most downloaded *Frontiers in Physiology* paper in 2015)
177. [Jordan M](#), Aargaard P, Herzog W (2015) Lower limb asymmetry in mechanical muscle function: a comparison between ski racers with and without ACL reconstruction. *Scandinavian Journal of Medicine and Science in Sports* 25:e301-e309.
178. [Jordan M](#), Aagaard P, Herzog W. (2015) Rapid hamstrings/quadriceps strength in ACL-reconstructed elite alpine ski racers. *Medicine and Science in Sport and Exercise* 47(1):109-119.
179. [Joumaa V](#), [Power GA](#), [Hisey B](#), Caicedo A, Stutz J, Herzog W (2015) Effects of fiber type on force depression after active shortening in skeletal muscle. *Journal of Biomechanics* 48:1687-1692.
180. [Leumann A](#), [Fortuna R](#), [Leonard TR](#), Valderrabano V, Herzog W (2015) Tibiofemoral loss of contact area but no changes in peak pressures after meniscectomy in a lapine in vivo quadriceps force transfer model. *Knee, Surgery, Sports Traumatology, Arthroscopy* 23 (1):65-73.
181. [Madden R](#), [Han S-K](#), Herzog W (2015) The effect of compressive loading magnitude on in situ chondrocyte calcium signaling. *Biomechanics and Modeling in Mechanobiology* 14(1):135-142.
182. Makela J, [Han S-K](#), Herzog W, [Korhonen R](#) (2015) Very early osteoarthritis changes sensitivity fluid flow properties of articular cartilage. *Journal of Biomechanics* 48:3369-3376. doi:10.1016/j.jbiomech.2015.06.010
183. [Power G](#), Minozzo F, Spendiff S, Filion ME, Konokhova Y, Purves-Smith M, Aubertin-Leheudre M, Pion C, Morais J, Herzog W, Hepple R, Taivassalo T, [Rassier D](#) (2015) Reduction in single muscle fiber rate of force development with aging is not attenuated in world class older masters athletes. *American Journal of Physiology Cell Physiology* 310(4):C318-C327. doi: 10.1152/ajpcell.00289.2015
184. Rouhi G, Tahani M, Haghighi B, Herzog W (2015) Prediction of stress shielding around orthopedic screws: time-dependent bone remodeling analysis using finite element approach. *Journal of Medical and Biological Engineering* 35:545-554. doi: 10.1007/s40846-015-0066-z.
185. [Schappacher-Tilp G](#), [Leonard TR](#), Desch G, Herzog W (2015) A novel three-filament model of force generation in eccentric contraction of skeletal muscles. *PLOS ONE* 10 (3): e0117634.
186. Seiberl W, [Power GA](#), Herzog W, Hahn D (2015) The stretch-shortening cycle revisited: residual force-enhancement contributes to performance enhancement during fast stretch-shortening of m. adductor pollicis. *Physiological Reports* 3 (5): e12401.
187. [Yu J](#), Sun Y, Yang C, Wang D, Yin K, Herzog W, Liu Y (2015) Biomechanical insights into differences between the mid-acceleration and the maximum velocity phase of sprinting. *The Journal of Strength & Conditioning Research* 30 (7): 1906-1916.
188. [Cantergi D](#), Loss J.F., [Jinha A](#), Brodt G.A., Herzog W (2014) Muscle strategies for leg extensions on a "Reformer" apparatus. *Journal of Electromyography and Kinesiology* 25:260-264.
189. Egloff C, [Sawatsky A](#), [Leonard TR](#), Fung T.S., Valderrabano V, Herzog W (2014) Alterations in patellofemoral kinematics following vastus medialis transection in the anterior cruciate ligament deficient rabbit knee. *Clinical Biomechanics* 29 (5):577-582.
190. Egloff C, [Sawatsky A](#), [Leonard TR](#), Hart DA, Valderrabano V, Herzog W (2014) Effect of muscle weakness and joint inflammation on the onset and progression of osteoarthritis in the rabbit knee. *Osteoarthritis and Cartilage* 22:1886-1893.

191. Fontana H, Roesler H, Herzog W (2014) In vivo vastus lateralis force-velocity relationship at the fascicle and muscle tendon unit level. *Journal of Electromyography and Kinesiology* 24 (6):934-940.
192. Hahn D, Herzog W, Schwirtz A (2014) Interdependence of torque, joint angle, angular velocity and muscle action during human multi-joint leg extension. *European Journal of Applied Physiology* 114:1691-1702.
193. Herzog J, Leonard TR, Jinha A, Herzog W (2014) Titin (visco-) elasticity in skeletal muscle myofibrils. *Molecular and Cellular Biomechanics* 11 (1):1-17.
194. Herzog W (2014) Mechanisms of enhanced force production in lengthening (eccentric) muscle contractions. *Journal of Applied Physiology* 116:1407-1417.
195. Herzog W (2014) The role of titin in eccentric muscle contraction (commentary). *Journal of Experimental Biology* 217:2825-2833.
196. Hoppeler H, Herzog W (2014) Editorial: Eccentric exercise: many questions unanswered. *Journal of Applied Physiology* 116 (11):1405-1406.
197. Joumaa V, Herzog W (2014) Calcium sensitivity of residual force enhancement in rabbit skinned fibers. *American Journal of Physiology: Cell Physiology* 307 (4):395-401.
198. Lewinson R, Collins K, Vallerand IA, Wiley JP, Woodhouse LJ, Reimer R, Worobets JT, Herzog W, Stefanyshyn D (2014) Reduced knee joint loading with lateral and medial wedge insoles for management of knee osteoarthritis: a protocol for a randomized controlled trial. *BMC Musculoskeletal Disorders* 15 (1):405.
199. Mäkelä J, Rezaeian AS, Mikkonen S, Madden R, Han S-K, Jurvelin JS, Herzog W, RK Korhonen (2014) Site-dependent changes in structure and function of lapine articular cartilage 4 weeks after anterior cruciate ligament transection. *Osteoarthritis and Cartilage* 22 (6):859-878.
200. Matthiasdottir S, Hahn M, Yaraskavitch M, Herzog W (2014) Muscle and fascicle excursion in children with cerebral palsy. *Clinical Biomechanics* 29 (4):458-462.
201. Moo E, Han S-K, Federico S, Sibole S, Jinha A, Osman NAA, Pinguan-Murphy B, Herzog W (2014) Extracellular matrix integrity affects the mechanical behavior of in-situ chondrocytes under compression. *Journal of Biomechanics* 47 (5):1004-1013.
202. Piper S, Howarth SJ, Triano J, Herzog W (2014) Quantifying strain in the vertebral artery with simultaneous motion analysis of the head and neck: a preliminary investigation. *Clinical Biomechanics* 29:1099-1107.
203. Power GA, Herzog W, Rice CL (2014) Decay of force transients following active stretch is slower in older than younger men: support for a structural mechanism contributing to residual force enhancement in old age. *Journal of Biomechanics* 47 (13):3423-3427.
204. Power GA, Makrakos DP, Stevens DE, Herzog W, Rice CL, Vandervoort AA (2014) Shortening-induced torque depression in old men: implications for age-related power loss. *Experimental Gerontology* 57:75-80.
205. Powers KL, Schappacher-Tilp G, Jinha A, Leonard TR, Nishikawa K, Herzog W (2014) Titin force is enhanced in actively stretched skeletal muscle. *Journal of Experimental Biology* 217:3629-3636.
206. Rautiainen J, Nissi MJ, Liimatainen O, Herzog W, Korhonen R, Nieminen MT (2014) Adiabatic rotating frame relaxation of MRI reveals early cartilage degeneration in a rabbit model of anterior cruciate ligament transection. *Osteoarthritis and Cartilage* 22:1444-1452.
207. Abusara Z, Krawetz R, Steele B, DuVall M, Schmidt TA, Herzog W (2013) Muscular loading of joints triggers cellular secretion of PRG4 into the joint fluid. *Journal of Biomechanics* 46 (7):1225-1230.
208. Arslan Y, Jinha A, Kaya M, Herzog W (2013) Prediction of muscle forces using static optimization for different contractile conditions. *Journal of Mechanics in Medicine and Biology* 13 (3): 1350022 DOI: 10.1142/S021951941350022X
209. Baroni BM, Geremia JM, Rodrigues R, Borges MK, Jinha A, Herzog W, Vaz MA (2013) Functional and morphological adaptations to aging in knee extensor muscles of physically active men. *Journal of Applied Biomechanics* 29:535-542.

210. DuVall M, Gifford J, Amrein W, Herzog W (2013) Altered mechanical properties of titin immunoglobulin domain 27 in the presence of calcium. *European Biophysics Journal* 42 (4):301-307.
211. Fortuna R, Horisberger M, Vaz MA, Herzog W (2013) Do skeletal muscle properties recover following repeat onabotulinum toxin type-A (botox) treatment? *Journal of Biomechanics* 46:2426-2433.
212. Herzog W, Leonard TR (2013) Residual force enhancement: the neglected property of striated muscle contraction. *Journal of Physiology* 591:2221.
213. Horisberger M, Fortuna R, Valderrabano V, Herzog W (2013) Long-term repetitive mechanical loading of the knee joint by in vivo muscle stimulation accelerates cartilage degeneration and increases chondrocyte death in a rabbit model. *Clinical Biomechanics* 28:536-543.
214. Joumaa V, Herzog W (2013) Energy cost of force production is reduced after active stretch in skinned muscle fibres. *Journal of Biomechanics* 46 (6):1135-1139.
215. Julkunen P, Wilson W, Isaksson H, Jurvelin JS, Herzog W, Korhonen R (2013) A review of the combination of experimental measurements and fibril-reinforced modeling for investigation of articular cartilage and chondrocyte response to loading. *Computational and Mathematical Methods in Medicine* 2013:1-23.
216. Koppes R, Herzog W, Corr D (2013) Force enhancement in lengthening contractions of cat soleus muscle in situ: transient and steady-state aspects. *Physiological Reports* 1 (2):1-10.
217. Leumann A, Fortuna R, Leonard TR, Valderrabano V, Herzog W (2013) Dynamic in-vivo force transfer in the lapine knee loaded by quadriceps muscle contraction. *Clinical Biomechanics* 28 (2):199-204.
218. Madden R, Han S-K, Herzog W (2013) Chondrocyte deformation under extreme tissue strain in two regions of the rabbit knee joint. *Journal of Biomechanics* 46 (3):554-560.
219. McGowan CP, Neptune RR, Herzog W (2013) A phenomenological muscle model to assess history dependent effects in human movement. *Journal of Biomechanics* 46:151-157.
220. Mohammadi H, Herzog W, Mequanint K (2013) Micro-finite element modeling of wrinkle formation for cell locomotion applications. *Journal of Mechanics in Medicine and Biology* 13 (1):1-12.
221. Mohammadi H, Mequanint K, Herzog W (2013) Computational aspects in mechanical modeling of the articular cartilage tissue. *Proceedings of the Institution of Mechanical Engineers, Part H, Journal of Engineering in Medicine* 227(4):402-420.
222. Moo E, Abusara Z, Abu Osman N.A, Pinguan-Murphy B, Herzog W (2013) Dual photon excitation microscopy and image threshold segmentation in live cell imaging during compression testing. *Journal of Biomechanics* 46:2024-2031.
223. Moo E, Amrein W, Epstein M, DuVall M, Abu Osman N.A, Pinguan-Murphy B, Herzog W (2013) The properties of chondrocyte membrane reservoirs and their role in impact-induced cell death. *Biophysical Journal* 105 (7):1590-1600.
224. Symons B, Herzog W (2013) Cervical artery dissection: A biomechanical perspective. *Journal of the Canadian Chiropractic Association* 57 (4):276-278.
225. Tanska P, Turunen S, Han S-K, Julkunen P, Herzog W, Korhonen R (2013) Superficial collagen fibril modulus and pericellular fixed charge density modulate chondrocyte volumetric behaviour in early osteoarthritis. *Computational and Mathematical Methods in Medicine* 2013:1-15.
226. Turunen S, Han S-K, Herzog W, Korhonen R (2013) Cell deformation behavior in mechanically loaded rabbit articular cartilage 4 weeks after anterior cruciate ligament transection. *Osteoarthritis and Cartilage* 21 (3):505-513.
227. Turunen S, Lammi M, Saarakkala S, Han S-K, Herzog W, Tanska P, Korhonen R (2013) The effect of collagen degradation on chondrocyte volume and morphology in bovine articular cartilage following a hypotonic challenge. *Biomechanics and Modeling in Mechanobiology* 12 (3):417-429.
228. Vaz MA, Baroni BM, Geremia JM, Lanferdini F, Mayer A, Arampatzis A, Herzog W (2013) Neuromuscular electrical stimulation (NMES) reduces structural and functional losses of quadriceps muscle and improves health status in patients with knee osteoarthritis. *Journal of Orthopaedic Research* 31 (4):511-516.

229. Fortuna R, Horisberger M, van der Marel R, Herzog W (2012) The effects of electrical stimulation exercise on muscles injected with botulinum toxin type-A (botox). *Journal of Biomechanics* 46 (1):36-42.
230. Fortuna R, Vaz MA, Herzog W (2012) Catchlike property in human adductor pollicis muscle. *Journal of Electromyography and Kinesiology* 22:228-233.
231. Han S-K, Madden R, Abusara Z, Herzog W (2012) In situ chondrocyte viscoelasticity. *Journal of Biomechanics* 45:2450-2456.
232. Han S-K, Wouters W, Clark AL, Herzog W (2012) Mechanically induced calcium signaling in chondrocytes in situ. *Journal of Orthopaedic Research* 30 (3):475-481.
233. Herzog J, Leonard TR, Jinha A, Herzog W (2012) The mechanical properties of titin within a sarcomere? *Journal of Undergraduate Research in Alberta* 2:8-15.
234. Herzog J, Leonard TR, Jinha A, Herzog W (2012) Are titin properties reflected in single myofibrils? *Journal of Biomechanics* 45:1893-1899.
235. Herzog W (2012) Response to letter to the editor by Drs. Haynes and Vincent. *Journal of Electromyography and Kinesiology* 22 (6):1018.
236. Herzog W (2012) Sport and health are global issues: editorial. *Journal of Sport and Health Science* 1:4.
237. Herzog W (2012) Journal club questions for "what can we learn about running from barefoot running: an evolutionary medical perspective" by Daniel E. Lieberman. *Exercise and Sport Sciences Reviews*.
238. Herzog W (2012) Running injuries: is it a question of evolution, form, tissue properties, mileage or shoes? (Invited commentary). *Exercise and Sport Sciences Reviews* 40 (2):59-60.
239. Herzog W, DuVall M, Leonard TR (2012) Molecular mechanisms of muscle force regulation: A role for titin? *Exercise and Sport Sciences Reviews* 40 (1):50-57.
240. Herzog W, Jinha A, Ait-Haddou R, Kaya M (2012) Response to letter to the editor regarding Jinha et al. (2009) "A task-specific validation of homogenous non-linear optimization approaches". *Journal of Theoretical Biology* 306:145.
241. Herzog W, Leonard TR, Joumaa V, DuVall M, Panchangam A (2012) The three-filament model of skeletal muscle stability and force production. *Molecular and Cellular Biomechanics* 9 (3):175-191.
242. Herzog W, Leonard TR, Symons B, Tang C, Wuest S (2012) Vertebral artery strains during high-speed, low amplitude cervical spinal manipulation. *Journal of Electromyography and Kinesiology* 22 (5):740-746.
243. Herzog W, Tang C, Leonard TR (2012) Internal carotid artery strains during high-speed, low-amplitude spinal manipulations of the neck. *Journal of Manipulative and Physiological Therapeutics* 38 (9): 664-671.
244. Horisberger M, Fortuna R, Leonard TR, Valderrabano V, Herzog W (2012) The influence of cyclic concentric and eccentric submaximal muscle loading on cell viability in the rabbit knee joint. *Clinical Biomechanics* 27 (3):292-298.
245. Joumaa V, MacIntosh BR, Herzog W (2012) New insights into force depression in skeletal muscle. *Journal of Experimental Biology* 215:2135-2140.
246. Leumann A, Longino D, Fortuna R, Leonard TR, Vaz MA, Hart DA, Herzog W (2012) Altered cell metabolism in tissues of the knee joint in a rabbit model of Botulinum toxin A-induced quadriceps muscle weakness. *Scandinavian Journal of Medicine and Science in Sports* 22 (6):776-782.
247. Moo E, Herzog W, Han S-K, Osman NAA, Murphy B, Federico S (2012) Mechanical behavior of in-situ chondrocytes subjected to different loading rates: a finite element study. *Biomechanics and Modeling in Mechanobiology* 11 (7):983-993.
248. Panchangam A, Herzog W (2012) Overextended sarcomeres regain filament overlap following stretch. *Journal of Biomechanics* 45 (14):2387-2391.
249. Sawatsky A, Bourne D, Horisberger M, Jinha A, Herzog W (2012) Changes in patellofemoral joint contact pressures caused by vastus medialis muscle weakness. *Clinical Biomechanics* 27:595-601.

250. Seiberl W, Hahn D, Herzog W, Schwirtz A (2012) Feedback controlled force enhancement and activation reduction of voluntarily activated quadriceps femoris during sub-maximal muscle action. *Journal of Electromyography and Kinesiology* 22:117-123.
251. Symons B, Wuest S, Leonard TR, Herzog W (2012) Biomechanical characterization of cervical spinal manipulation in living subjects and cadavers. *Journal of Electromyography and Kinesiology* 22:747-751.
252. Szabo E, Egloff C, Seerattan R, Leonard TR, Herzog W (2012) Strength training of the quadriceps muscles following ACL loss: effects on strength and joint integrity. *Sport-Orthopaedie - Sport-Traumatologie* 28:266-273.
253. Tilp M, Steib S, Herzog W (2012) Length changes of human tibialis anterior central aponeurosis during passive movements and isometric, concentric, and eccentric contractions. *European Journal of Applied Physiology* 112 (4):1485-1494.
254. Vaz MA, Freitas C, Leonard TR, Herzog W (2012) The force-length relationship of the cat soleus muscle. *Muscles, Ligaments and Tendons Journal* 2:79-85.
255. Abusara Z, Seerattan R, Leumann A, Thompson R, Herzog W (2011) A novel method for determining articular cartilage chondrocyte mechanics in vivo. *Journal of Biomechanics* 44 (5):930-934.
256. Fortuna R, Vaz MA, Youssef A, Longino D, Herzog W (2011) Changes in contractile properties of muscles receiving repeat injections of botulinum toxin (botox). *Journal of Biomechanics* 44 (1):39-44.
257. Han S-K, Federico S, Herzog W (2011) A depth-dependent model of the pericellular microenvironment of chondrocytes in articular cartilage. *Computer Methods in Biomechanics and Biomedical Engineering* 14 (7):657-664.
258. Herzog W (2011) Muscle series elasticity: theoretical and experimental considerations. *Portuguese Journal of Sports Sciences* 11 (Suppl 3):27-30.
259. Herzog W (2011) Understanding muscle properties in sports performance optimization. *Portuguese Journal of Sports Sciences* 11 (Suppl 2):23-26.
260. Herzog W (2011) Letter to the Editor: A reply. *Journal of Manipulative and Physiological Therapeutics* 34 (3):201-202.
261. Herzog W, Sartorio A, Kanehisa H, Dotan D, Wood L, Tonson A, Tolfrey K, O'Brien TD, Lambertz D, Lafortuna CL, Fukunaga T, Falk B, Le Fur Y, Cozzone PJ, Bendahan D, Morse CI, Reeves ND, Balzopolous V, Jones D DA, Maganaris CN, Grosset JF, Perot C (2011) Can muscle size fully account for strength differences between children and adults? (Commentary on viewpoint). *Journal of Applied Physiology* 110 (6):1750-1753.
262. Horisberger M, Kazemkhani S, Monument M.J., Emmenegger D, Herzog W (2011) Does the source of hemarthrosis influence posttraumatic joint contracture and biomechanical properties of the joint? *Clinical Biomechanics* 26:790-795.
263. Mohammadi H, Bahramian F, Herzog W (2011) A novel continuum model on reduction of numerical errors of finite element analysis. *Proceedings of the Institution of Mechanical Engineers, Part C, Journal of Mechanical Engineering Science* 225:817-825.
264. Mohammadi H, Bahramian F, Herzog W (2011) An alternative finite element model for simulation of frictional gap. *Journal of Mechanical Science and Technology* 12:3099-3105.
265. Mohammadi H, Herzog W (2011) A novel model for diffusion-based release kinetics using an inverse numerical method. *Medical Engineering and Physics* 33 (8):893-899.
266. Mohammadi H, Mequanint K, Herzog W (2011) A P-Type finite element solution for the simulation of O₂ transport in articular cartilage tissue: Heterogeneous and porous media. *Journal of Engineering in Medicine* 225 (10):1003-1014.
267. Panchangam A, Herzog W (2011) Sarcomere overextension reduces stretch-induced tension loss in myofibrils of rabbit psoas. *Journal of Biomechanics* 44:2144-2149.
268. Roos E, Herzog W, Block J, Bennell K (2011) Muscle weakness, afferent sensory dysfunction and exercise in knee osteoarthritis. *Nature Reviews Rheumatology* 7:57-63.

269. Schappacher-Tilp G, Jinha A, Herzog W (2011) Mapping the classical cross-bridge theory and backward steps in a three bead laser trap setup. *Mathematical Biosciences* 229 (1):115-122.
270. Tilp M, Steib S, Schappacher-Tilp G, Herzog W (2011) Changes in fascicle lengths and pennation angles do not contribute to residual force enhancement/depression in voluntary contractions. *Journal of Applied Biomechanics* 27 (1):64-73.
271. Ait-Haddou R, Herzog W, Nomura T (2010) Complex bezier curves and the geometry of polygons. *Computer Aided Geometric Design* 27:525-537.
272. Austin N, DiFrancesco L, Herzog W (2010) Microstructural damage in arterial tissue exposed to repeated tensile strains. *Journal of Manipulative and Physiological Therapeutics* 33:14-19.
273. Austin N, Nilwik R, Herzog W (2010) In vivo operational fascicle lengths of vastus lateralis during sub-maximal and maximal cycling. *Journal of Biomechanics* 43 (12):2394-2399.
274. Bullimore SR, Saunders T.J., Herzog W, MacIntosh BR (2010) Calculation of muscle maximal shortening velocity by extrapolation of the force-velocity relationship: afterloaded versus isotonic release contractions. *Canadian Journal of Physiology and Pharmacology* 88 (10):937-948.
275. Grillo A, Jinha A, Federico S, Ait-Haddou R, Herzog W, Giaguinta G (2010) Directed transport of Brownian particles in a changing temperature field - Corrigendum. *Journal of Physics A: Mathematical and Theoretical* 43 (22).
276. Han S-K, Seerattan R, Herzog W (2010) Mechanical loading of in situ chondrocytes in lapine retropatellar cartilage after anterior cruciate ligament transection. *Journal of the Royal Society Interface* 7 (47):895-903.
277. Herzog W (2010) The biomechanics of spinal manipulation. *Journal of Bodywork and Movement Therapies* 14:280-286.
278. Herzog W, Joumaa V, Leonard TR (2010) On the mechanics of single sarcomeres. *Molecular and Cellular Biomechanics* 7 (1):25-31.
279. Herzog W, Symons B (2010) Reply: Microstructural damage of arterial tissue due to repeated tensile strains. *Journal of Manipulative and Physiological Therapeutics* 33 (6):481-482.
280. Jordan M, Norris SR, Smith D, Herzog W (2010) Acute effects of whole-body vibration on peak isometric torque, muscle twitch torque and voluntary muscle activation of the knee extensors. *Scandinavian Journal of Medicine and Science in Sports* 20:535-540.
281. Joumaa V, Herzog W (2010) Force depression in single myofibrils. *Journal of Applied Physiology* 108 (2):356-362.
282. Korhonen R, Han S-K, Herzog W (2010) Osmotic loading of in situ chondrocytes in their native environment. *Molecular and Cellular Biomechanics* 7 (3):125-134.
283. Korhonen R, Han S-K, Herzog W (2010) Osmotic loading of articular cartilage modulates cell deformations along primary collagen fibril directions. *Journal of Biomechanics* 43 (4):783-787.
284. Leonard TR, DuVall M, Herzog W (2010) Force enhancement following stretch in a single sarcomere. *American Journal of Physiology: Cell Physiology* 299 (6):C1398-C1401.
285. Leonard TR, Herzog W (2010) Regulation of muscle force in the absence of actin-myosin based cross-bridge interaction. *American Journal of Physiology: Cell Physiology* 299 (1):C14-C20.
286. Leonard TR, Joumaa V, Herzog W (2010) An activatable molecular spring reduces muscle tearing during extreme stretching. *Journal of Biomechanics* 43:3063-3066.
287. McGowan CP, Neptune RR, Herzog W (2010) A phenomenological model and validation of shortening-induced force depression during muscle contractions. *Journal of Biomechanics* 43 (3):449-454.
288. Rousanoglou E, Herzog W, Boudolos K (2010) Moment-angle relations in the initial time of contraction. *International Journal of Sports Medicine* 31 (9):651-655.

289. Wuest S, Symons B, Leonard TR, Herzog W (2010) Preliminary report: biomechanics of vertebral artery segments c1-c6 during cervical spinal manipulation. *Journal of Manipulative and Physiological Therapeutics* 33:273-278.
290. Adeeb S, Herzog W (2009) Simulation of biological growth. *Computer Methods in Biomechanics and Biomedical Engineering* 12 (6):617-626.
291. Han S-K, Colarusso P, Herzog W (2009) Confocal microscopy indentation system for studying in situ chondrocyte mechanics. *Medical Engineering and Physics* 31:1038-1042.
292. Herzog W (2009) The biomechanics of muscle contraction: optimizing sport performance. *Sportorthopädie Sporttraumatologie* 25:286-293.
293. Herzog W (2009) Twitch interpolation represents muscle activation in a qualitative manner only (commentary). *Journal of Applied Physiology* 107:360-361.
294. Hisey B, Leonard TR, Herzog W (2009) Does residual force enhancement increase with increasing stretch magnitudes? *Journal of Biomechanics* 42 (10):1488-1492.
295. Jinha A, Ait-Haddou R, Kaya M, Herzog W (2009) A task-specific validation of homogeneous non-linear optimisation approaches. *Journal of Theoretical Biology* 259 (4):695-700.
296. Lee E-J, Herzog W (2009) Shortening-induced force depression is primarily caused by cross-bridges in strongly bound states. *Journal of Biomechanics* 42:2336-2340.
297. Li LP, Cheung JTM, Herzog W (2009) Three-dimensional fibril-reinforced finite element model of articular cartilage. *Medical and Biological Engineering & Computing* 47 (6):607-615.
298. Oskouei MAE, Herzog W (2009) Activation-induced force enhancement in human adductor pollicis. *Journal of Electromyography and Kinesiology* 19:821-828.
299. Rode C, Siebert T, Herzog W, Blickhan R (2009) The effects of parallel and series elastic components on the active cat soleus force-length relationship. *Journal of Mechanics in Medicine and Biology* 9 (1):105-122.
300. Schappacher-Tilp G, Binding PA, Braverman E, Herzog W (2009) Velocity-dependent cost function for the prediction of force sharing among synergistic muscles in a one degree of freedom model. *Journal of Biomechanics* 42 (5):657-660.
301. Tilp M, Steib S, Herzog W (2009) Force-time history effects in voluntary contractions of human tibialis anterior. *European Journal of Applied Physiology* 106:159-166.
302. Youssef A, Seerattan R, Leonard TR, Herzog W (2009) Muscle weakness causes joint degeneration in rabbits. *Osteoarthritis and Cartilage* 17 (9):1228-1235.
303. Ait-Haddou R, Herzog W, Biard L (2008) Pythagorean-hodograph ovals of constant width. *Computer Aided Geometric Design* 25:258-273.
304. Bullimore SR, MacIntosh BR, Herzog W (2008) Is a parallel elastic element responsible for the enhancement of steady-state muscle force following active stretch? *Journal of Experimental Biology* 211:3001-3008.
305. Federico S, Grillo A, Giaquinta G, Herzog W (2008) Convex Fung-type potentials for biological tissues. *Meccanica* 43 (3):279-288.
306. Federico S, Grillo A, Giaquinta G, Herzog W (2008) A semi-analytical solution for the confined compression of hydrated soft tissue. *Meccanica*.DOI: 10.1007/s11012-008-9165-z.
307. Federico S, Grillo A, Imatani S, Giaguinta G, Herzog W (2008) An energetic approach to the analysis of anisotropic hyperelastic materials. *International Journal of Engineering Science* pg(s) 164-181.DOI: 10.1016/j.ijengsci.2007.09.005.
308. Federico S, Herzog W (2008) Towards an analytical model of soft biological tissues. *Journal of Biomechanics* 41:3309-3313.
309. Federico S, Herzog W (2008) On the anisotropy and inhomogeneity of permeability in articular cartilage. *Biomechanics and Modeling in Mechanobiology* 7 (5):367-378.

310. Federico S, Herzog W (2008) On the permeability of fibre-reinforced porous materials. *International Journal of Solids and Structures* 45:2160-2172.
311. Grillo A, Jinha A, Federico S, Ait-Haddou R, Herzog W, Giaquinta G (2008) Directed transport of brownian particles in a changing temperature field. *Journal of Physics A: Mathematical and Theoretical* 41 (1):015002.
312. Herzog W, Joumaa V, Leonard TR (2008) On the mechanics of single sarcomeres. *Molecular and Cellular Biomechanics* 1:375-382.
313. Herzog W, Leonard TR, Joumaa V, Mehta A (2008) Mysteries of muscle contraction. *Journal of Applied Biomechanics* 24 (1):1-13.
314. Herzog W, Yaraskavitch M, Leonard TR (2008) Response to letter to the editor Re: Botox produces functional weakness in non-injected muscles adjacent to the target muscle. *Journal of Biomechanics* 41 (9) 2067.
315. Joumaa V, Leonard TR, Herzog W (2008) Residual force enhancement in myofibrils and sarcomeres. *Proceedings of the Royal Society London Bio Sci* 275:1411-1419.
316. Joumaa V, Rassier D, Leonard TR, Herzog W (2008) The origin of passive force enhancement in skeletal muscle. *American Journal of Physiology: Cell Physiology* 294:C74-C78.
317. Julkunen P, Korhonen R, Herzog W, Jurvelin JS (2008) Uncertainties in indentation testing of articular cartilage: a fibril-reinforced poroviscoelastic study. *Medical Engineering and Physics* 30 (4):506-515.
318. Kaya M, Leonard TR, Herzog W (2008) Premature deactivation of soleus during the propulsive phase of cat jumping. *Journal of Royal Society Interface* 5:415-426.
319. Korhonen R, Herzog W (2008) Depth-dependent analysis of the role of collagen fibrils, fixed charges and fluid in the pericellular matrix of articular cartilage on chondrocyte mechanics. *Journal of Biomechanics* 41:480-485.
320. Korhonen R, Julkunen P, Wilson W, Herzog W (2008) Importance of collagen orientation and depth-dependent fixed charge densities of cartilage on mechanical behavior of chondrocytes. *Journal of Biomechanical Engineering* 130 (2):1003-1014.
321. Lee E-J, Herzog W (2008) Effect of temperature on residual force enhancement in single skeletal muscle fibers. *Journal of Biomechanics* 41:2703-2707.
322. Lee E-J, Herzog W (2008) Residual force enhancement exceeds the isometric force at optimal sarcomere length for optimized stretch conditions. *Journal of Applied Physiology* 105:457-462.
323. Lemos R, Epstein M, Herzog W (2008) Modeling of skeletal muscle: The influence of tendon and aponeuroses compliance on the force-length relationship. *Medical and Biological Engineering Computing* 46:23-32.
324. Li LP, Korhonen R, Livarinen J, Jurvelin JS, Herzog W (2008) Fluid pressure driven fibril reinforcement in creep and relaxation tests of articular cartilage. *Medical Engineering and Physics* 30:182-189.
325. Mehta A, Herzog W (2008) Cross-bridge induced force enhancement? *Journal of Biomechanics* 41 (7):1611-1615.
326. Siebert T, Rode C, Herzog W, Till T, Blickhan R (2008) Nonlinearities make a difference: comparison of two common Hill-type models with real muscle. *Biological Cybernetics* 98:133-143.
327. Walcott S, Herzog W (2008) Modeling residual force enhancement with generic cross-bridge models. *Mathematical Biosciences* 216:172-186.
328. Yaraskavitch M, Leonard TR, Herzog W (2008) Botox produces functional weakness in non-injected muscles adjacent to the target muscle. *Journal of Biomechanics* 41 (4):897-902.
329. Bullimore SR, Leonard TR, Rassier D, Herzog W (2007) History-dependence of isometric muscle force: effect of prior stretch or shortening amplitude. *Journal of Biomechanics* 40:1518-1524.
330. DeJaeger D, Joumaa V, Herzog W (2007) Effect of stretch-training on rabbit plantarflexor muscles. *Computer Methods in Biomechanics and Biomedical Engineering* 10 (Suppl 1):149-150.
331. Erdemir A, McLean S., Herzog W, van den Bogert AJ (2007) Model-based estimation of muscle forces exerted during movements. *Clinical Biomechanics* 22:131-154.

332. Federico S, Grillo A, Herzog W, Giaquinta G, Imatani S (2007) Possible approaches in modelling rearrangement in a microstructured material. *Key Engineering Materials* 340:137-142.
333. Frasson V, Rassier D, Herzog W, Vaz MA (2007) Dorsiflexor and plantarflexor torque-velocity relationships of classical ballet dancers and volleyball players. *Brazilian Journal of Biomechanics* 8 (14):31-37.
334. Grillo A, Zingali G, Borrello D, Federico S, Herzog W, Giaquinta G (2007) A multiscale description of growth and transport in biological tissues. *Theoretical and Applied Mechanics* 34:51-87.
335. Grillo A, Zingali G, Borrello D, Federico S, Herzog W, Giaquinta G (2007) Interaction between growth and transport phenomena in living mixtures. *Journal of Physics* 62:43-71.
336. Han S-K, Federico S, Grillo A, Giaquinta G, Herzog W (2007) The mechanical behaviour of chondrocytes predicted with a micro-structural model of articular cartilage. *Biomechanics and Modeling in Mechanobiology* 6 (3):139-150.
337. Herzog W, Leonard TR (2007) Reply from Walter Herzog (on behalf of the authors) and Leonard. Can all residual force enhancement be explained by sarcomere non-uniformities? In response to Letter to the Editor. *Journal of Physiology* 578:617-620.
338. Herzog W, Leonard TR (2007) Residual force depression is not abolished following a quick shortening step. *Journal of Biomechanics* 40:2806-2810.
339. Herzog W, Longino D (2007) The role of muscles in joint degeneration and osteoarthritis. *Journal of Biomechanics* 40:S54-S63.
340. Joumaa V, Rassier D, Leonard TR, Herzog W (2007) Passive force enhancement in single myofibrils. *European Journal of Physiology* pg(s) 367-371.DOI: 10.1007/s00424-007-0287-2.
341. Lee E-J, Joumaa V, Herzog W (2007) New insights into the passive force enhancement in skeletal muscles. *Journal of Biomechanics* 40 (4):719-727.
342. Rouhi G, Epstein M, Sudak L, Herzog W (2007) Modeling bone resorption using mixture theory with chemical reactions. *Journal of Mechanics and Materials of Structures* 2 (6):1141-1155.
343. Rousanoglou E, Oskouei MAE, Herzog W (2007) Force depression following muscle shortening in sub-maximal voluntary contractions of human adductor pollicis. *Journal of Biomechanics* 40:1-8.
344. Valderrabano V, Nigg BM, Hintermann B, Goepfert B, Dick W, Frank CB, Herzog W, von Tscharner V (2007) Muscular lower leg asymmetry in middle-aged people. *Foot & Ankle* 28:242-249.
345. Butterfield T, Herzog W (2006) The magnitude of muscle strain does not influence serial sarcomere number adaptations following eccentric exercise. *European Journal of Physiology* 451 (5):688-700.
346. Butterfield T, Herzog W (2006) Effect of altering starting length and activation timing of muscle on fiber strain and muscle damage. *Journal of Applied Physiology* 100 (5):1489-1498.
347. Clark AL, Leonard TR, Barclay LD, Matyas JR, Herzog W (2006) Heterogeneity in patellofemoral cartilage adaptation to anterior cruciate ligament transection: chondrocyte shape and deformation with compression. *Osteoarthritis and Cartilage* 14:120-130.
348. Epstein M, Wong M, Herzog W (2006) Should tendon and aponeurosis be considered in series? *Journal of Biomechanics* 39 (11):2020-2025.
349. Forand D, Drover J, Suleman Z, Symons B, Herzog W (2006) Vergleich des Kraftaufwandes männlicher und weiblicher Chiropraktiker während Manipulationen an der Brustwirbelsäule. *Manuelle Medizin* 44:5-11.
350. Herzog W (2006) Articular cartilage. *Encyclopedia of Biomedical Engineering* 1:121-130.
351. Herzog W, Federico S (2006) Considerations on joint and articular cartilage mechanics. *Biomechanics and Modeling in Mechanobiology* 5 (2-3):64-81.
352. Herzog W, Lee E-J, Rassier D (2006) Residual force enhancement in skeletal muscle. *Journal of Physiology* 574 (3):635-642.

353. Jinha A, Ait-Haddou R, Herzog W (2006) Predictions of co-contraction depend critically on degrees-of-freedom in the musculoskeletal model. *Journal of Biomechanics* 39:1145-1152.
354. Jinha A, Ait-Haddou R, Herzog W (2006) Antagonistic activity of one-joint muscles in three-dimensions using non-linear optimisation. *Mathematical Biosciences* 202 (1):57-70.
355. Kawchuk GN, Herzog W, Hasler EM (2006) Kraftaufwand während Manipulationen bei manueller Therapie an der Halswirbelsäule Eine Pilotstudie. *Manuelle Medizin*. DOI: 10.1007/s00337-006-0415-7.
356. Kaya M, Leonard TR, Herzog W (2006) Control of ground reaction forces by hindlimb muscles during cat locomotion. *Journal of Biomechanics* 39:2752-2766.
357. Li LP, Herzog W (2006) Arthroscopic evaluation of cartilage degeneration using indentation testing - influence of indenter geometry. *Clinical Biomechanics* 21 (4):420-426.
358. Oskouei MAE, Herzog W (2006) The dependence of force enhancement on activation in human adductor pollicis. *European Journal of Applied Physiology* 98 (1):22-29.
359. Oskouei MAE, Herzog W (2006) Force enhancement at different levels of voluntary contraction in human adductor pollicis. *European Journal of Applied Physiology* 97 (3):280-287.
360. Rouhi G, Epstein M, Sudak L, Herzog W (2006) Free surface density and microdamage in the bone remodelling equation: theoretical considerations. *International Journal of Engineering Science* 44:456-469.
361. Valderrabano V, von Tscharnner V, Nigg BM, Hintermann B, Goepfert B, Fung T.S., Frank CB, Herzog W (2006) Lower leg muscle atrophy in ankle osteoarthritis. *Journal of Orthopaedic Research* pg(s) 2159-2169.
362. Wu JZ, Herzog W (2006) Analysis of the mechanical behavior of chondrocytes in unconfined compression tests for cyclic loading. *Journal of Biomechanics* 39:603-616.
363. Boyd SK, Muller R, Leonard TR, Herzog W (2005) Long-term periarticular bone adaptation in a feline knee injury model for post-traumatic experimental osteoarthritis. *Osteoarthritis and Cartilage* pg(s) 235-242.
364. Butterfield T, Herzog W (2005) Quantification of muscle fiber strain during in-vivo repetitive stretch-shortening cycles. *Journal of Applied Physiology* 99 (2):593-602.
365. Butterfield T, Herzog W (2005) Is the force-length relationship a useful indicator of contractile element damage following eccentric exercise? *Journal of Biomechanics* 38:1932-1937.
366. Butterfield T, Leonard TR, Herzog W (2005) Differential serial sarcomere number adaptations in knee extensor muscles of rats is contraction type dependent. *Journal of Applied Physiology* 99 (4):1352-1358.
367. Clark AL, Leonard TR, Barclay LD, Matyas JR, Herzog W (2005) Opposing cartilages in the patellofemoral joint adapt differently to long-term cruciate deficiency: chondrocyte deformation and reorientation with compression. *Osteoarthritis and Cartilage* 13 (12):1100-1114.
368. Corr D, Herzog W (2005) Force recovery following activated shortening in whole skeletal muscle: Transient and steady-state aspects of force depression. *Journal of Applied Physiology* 99:252-260.
369. Federico S, Grillo A, La Rosa G, Giaquinta G, Herzog W (2005) A transversely isotropic, transversely homogeneous microstructural-statistical model of articular cartilage. *Journal of Biomechanics* 38 (10):2008-2018.
370. Federico S, Herzog W, Wu JZ (2005) Erratum: "Effect of fluid boundary conditions on joint contact mechanics and applications to the modelling of osteoarthritic joints: *J. Biomech. Engn.*, 126 (2), 220-225". *Journal of Biomechanical Engineering* 127 (1):208-209.
371. Grillo A, Zingali G, Federico S, Herzog W, Giaquinta G (2005) The role of material inhomogeneities in biological growth. *Theoretical and Applied Mechanics* 32 (1):21-38.
372. Han S-K, Federico S, Epstein M, Herzog W (2005) An articular cartilage contact model based on real surface geometry. *Journal of Biomechanics* 38:179-184.
373. Herzog W (2005) Force enhancement following stretch of activated muscle: critical review and proposal for mechanisms. *Medical and Biological Engineering Computing* 43 (2):173-180.
374. Herzog W (2005) Physiological effects of manual therapy. *Orthopaedic Division Review* pg(s) 29-32.

375. Herzog W, Han S-K, Federico S, Epstein M (2005) Letter to the Editor: Response to Dr. Mann re: Han et. al., 2005. *Journal of Biomechanics* 38 (8):1741-1743.
376. Herzog W, Leonard TR (2005) The role of passive structures in force enhancement of skeletal muscles following active stretch. *Journal of Biomechanics* 38:409-415.
377. Herzog W, Scheele D, Conway PJW (2005) Elektromyographische Reaktion der Rücken-und Extremitäten-Muskulatur bei manueller Therapie im Wirbelsäulenbereich. *Manuelle Medizin* 43:235-242.
378. Herzog W, Suter E, Conway PJW (2005) Messung von Beschleunigungen im Bereich der Brustwirbelsäule während spinaler manipulativer Therapie. *Manuelle Medizin* pg(s) 325-330.
379. Jordan M, Norris SR, Herzog W (2005) Vibration training: an overview of the area, training consequences, and future considerations. *Journal of Strength and Conditioning Research* 19 (2):459-466.
380. Kaya M, Jinha A, Leonard TR, Herzog W (2005) Multi-functionality of the cat medial gastrocnemius during locomotion. *Journal of Biomechanics* 38 (6):1291-1301.
381. Leonard TR, Herzog W (2005) Does the speed of shortening affect steady state force depression in cat soleus muscle? *Journal of Biomechanics* 38:2190-2197.
382. Li LP, Herzog W (2005) Electromechanical response of articular cartilage in indentation - considerations on the determination of cartilage properties during arthroscopy. *Computer Methods in Biomechanics and Biomedical Engineering* 8 (2):83-91.
383. Li LP, Herzog W, Korhonen R, Jurvelin JS (2005) The role of viscoelasticity of collagen fibers in articular cartilage: axial tension versus compression. *Medical Engineering and Physics* 27 (1):47-53.
384. Longino D, Butterfield T, Herzog W (2005) Frequency and length dependent effects of Botulinum toxin-induced muscle weakness. *Journal of Biomechanics* 38:609-613.
385. Longino D, Frank CB, Herzog W (2005) Acute botulinum toxin-induced muscle weakness in the anterior cruciate ligament-deficient rabbit. *Journal of Orthopaedic Research* 23 (6):1404-1410.
386. Longino D, Frank CB, Leonard TR, Herzog W (2005) Proposed model of botulinum toxin-induced muscle weakness in the rabbit. *Journal of Orthopaedic Research* 23 (6):1411-1418.
387. Oskouei MAE, Herzog W (2005) Observations on force enhancement in sub-maximal voluntary contractions of human adductor pollicis muscle. *Journal of Applied Physiology* pg(s) 2087-2095.
388. Rassier D, Herzog W (2005) Relationship between force and stiffness in muscle fibres after stretch. *Journal of Applied Physiology* 99:1769-1775.
389. Rassier D, Herzog W (2005) Force enhancement and relaxation rates after stretch of activated muscle fibres. *Proceedings of the Royal Society London B* 272 (1562):475-480.
390. Rassier D, Lee E-J, Herzog W (2005) Modulation of passive force in single skeletal muscle fibres. *Proceedings of the Royal Society London B, Biology Letters* 1:342-345.
391. Suter E, McMorland GM, Herzog W (2005) Short-term effects of spinal manipulation on H-reflex amplitude in healthy and symptomatic subjects. *Journal of Manipulative and Physiological Therapeutics* 28:667-672.
392. Ait-Haddou R, Jinha A, Herzog W, Binding PA (2004) Analysis of the force-sharing problem using an optimization model. *Mathematical Biosciences* 191:111-122.
393. Clark AL, Mills L, Hart DA, Herzog W (2004) Muscle-induced patellofemoral joint loading rapidly affects cartilage mRNA levels in a site-specific manner. *Journal of Musculoskeletal Research* 8 (1):1-12.
394. Drover J, Forand D, Herzog W (2004) Influence of active release technique on quadriceps inhibition and strength: A Pilot study. *Journal of Manipulative and Physiological Therapeutics* 27 (6):408-413.
395. Federico S, Grillo A, Herzog W (2004) A transversely isotropic composite with a statistical distribution of spheroidal inclusions: a geometrical approach to overall properties. *Journal of the Mechanics and Physics of Solids* 52 (10):2309-2327.

396. Federico S, Herzog W, Wu JZ, La Rosa G (2004) A method to estimate the elastic properties of the extracellular matrix of articular cartilage. *Journal of Biomechanics* 37:401-404.
397. Federico S, La Rosa G, Herzog W, Wu JZ (2004) Effect of fluid boundary conditions on joint contact mechanics and applications to the modelling of osteoarthritic joints. *Journal of Biomechanical Engineering* 126:220-225.
398. Forand D, Drover J, Suleman Z, Symons B, Herzog W (2004) The forces applied by female and male chiropractors during thoracic spinal manipulation. *Journal of Manipulative and Physiological Therapeutics*. Elsevier 27 (1):49-56.
399. Herzog W (2004) History dependence of skeletal muscle force production: Implications for movement control. *Human Movement Science* 23 (5):591-604.
400. Lemos R, Epstein M, Herzog W, Wyvill B (2004) A framework for structured modeling of skeletal muscle. *Computer Methods in Biomechanics and Biomedical Engineering* 7 (6):305-317.
401. Li LP, Herzog W (2004) Strain-rate dependence of cartilage stiffness in unconfined compression: the role of fibril reinforcement versus tissue volume change in fluid pressurization. *Journal of Biomechanics* 37:375-382.
402. Li LP, Herzog W (2004) The role of viscoelasticity of collagen fibers in articular cartilage: theory and numerical formulation. *Biorheology* 41 (3-4):181-194.
403. Peterson D, Rassier D, Herzog W (2004) Force enhancement in single skeletal muscle fibres on the ascending limb of the force-length relationship. *Journal of Experimental Biology* 207:2787-2791.
404. Rassier D, Herzog W (2004) Considerations on the history dependence of muscle contraction. *Journal of Applied Physiology* 96:419-427.
405. Rassier D, Herzog W (2004) Effects of shortening on stretch-induced force enhancement in single skeletal muscle fibers. *Journal of Biomechanics* 37 (9):1305-1312.
406. Rassier D, Herzog W (2004) Active force inhibition and stretch induced force enhancement in frog muscle treated with BDM. *Journal of Applied Physiology* 97 (4):1395-1400.
407. Rouhi G, Herzog W, Sudak L, Firoozbakhsh K, Epstein M (2004) Free surface density instead of volume fraction in the bone remodeling equation: theoretical considerations. *FORMA* 19:165-182.
408. Schachar R, Herzog W, Leonard TR (2004) The effects of muscle stretching and shortening on isometric forces on the descending limb of the force-length relationship. *Journal of Biomechanics* 37 (6):917-926.
409. Ait-Haddou R, Herzog W (2003) Brownian ratchet models of molecular motors. *Cell Biochemistry and Biophysics* 38:191-213.
410. Clark AL, Barclay LD, Matyas JR, Herzog W (2003) In situ chondrocyte deformation with physiological compression of the feline patellofemoral joint. *Journal of Biomechanics* 36:553-568.
411. Epstein M, Herzog W (2003) Aspects of skeletal muscle modeling. *Phil Trans R Soc London B* 358:1445-1452.
412. Grillo A, Federico S, Giaquinta G, Herzog W, La Rosa G (2003) Restoration of the symmetries broken by reversible growth in hyperelastic bodies. *Theoretical and Applied Mechanics* 30 (4):311-331.
413. Hansen EA, Lee HD, Barrett K, Herzog W (2003) The shape of the force-elbow angle relationship of human elbow flexors during maximal, sub-maximal/potential contractions. *Journal of Biomechanics* 36 (11):1713-1718.
414. Herzog W (2003) Internal forces sustained by the vertebral artery during spinal manipulative therapy (letter in response). *Journal of Manipulative and Physiological Therapeutics* 26:339-340.
415. Herzog W, Clark AL, Wu JZ (2003) Resultant and local loading in models of joint disease. *Arthritis Care and Research* 49 (2):239-247.
416. Herzog W, Longino D, Clark AL (2003) The role of muscles in joint adaptation and degeneration. *Langenbeck's Archives of Surgery* 388 (5):305-315.
417. Herzog W, Schachar R, Leonard TR (2003) Characterization of the passive component of force enhancement following active stretching of skeletal muscle. *Journal of Experimental Biology* 206:3634-3643.

418. Herzog W, Symons B, Leonard TR (2003) Internal forces sustained by the vertebral artery during spinal manipulative therapy In Response. Letter. *Journal of Manipulative and Physiological Therapeutics* 26:339-340.
419. Kaya M, Leonard TR, Herzog W (2003) Coordination of medial gastrocnemius and soleus forces during cat locomotion. *Journal of Experimental Biology* 206:3645-3655.
420. Lee HD, Herzog W (2003) Force depression following muscle shortening of voluntarily activated and electrically stimulated human adductor pollicis. *Journal of Physiology* 551:993-1003.
421. Oskouei MAE, Herzog W, Schuiling M, van Mazijk B (2003) Variability in the interpolated twitch torque for maximal and sub-maximal voluntary contractions. *Journal of Applied Physiology* 4:1648-1655.
422. Rassier D, Herzog W, Pollack GH (2003) Stretch-induced force enhancement and stability of skeletal muscle myofibrils. *Advances in Experimental Medicine and Biology*. Kluwer Academic/Plenum Publishers, New York 538:501-515.
423. Rassier D, Herzog W, Pollack GH (2003) Dynamics of individual sarcomeres during and after stretch in activated single myofibrils. *Proceedings of the Royal Society London B* 270:1735-1740.
424. Rassier D, Herzog W, Wakeling JM, Syme D (2003) Stretch-induced, steady-state force enhancement in single skeletal muscle fibers exceeds the isometric force at optimal fibre length. *Journal of Biomechanics* 36:1309-1316.
425. Tsuzaki M, Guyton GP, Garrett W, Archambault JM, Herzog W, Almekinders L, Bynum D, Yang X.Y, Banes AJ (2003) IL-1B induces COX2, MMP-1, -3 and -13, ADAMTS-4, IL-1B and IL-6 in human tendon cells. *Journal of Orthopaedic Research* 21: 256-264.
426. Ait-Haddou R, Herzog W (2002) Force and motion generation of myosin motors: muscle contraction. *Journal of Electromyography and Kinesiology* 12 (6):435-445.
427. Ait-Haddou R, Herzog W (2002) Convex subdivision of a Bézier curve. *Journal of Computer Aided Geometric Design* 19 (8):663-671.
428. Ait-Haddou R, Jinha A, Herzog W (2002) Sensitivity analysis and analytical solutions for the Crowninshield and Brand distribution problem for quadratic cost functions (Letter to the editor). *Journal of Biomechanics* 35:1433-1435.
429. Archambault JM, Elfervig MK, Tsuzaki M, Herzog W, Banes AJ (2002) Rabbit tendon cells produce MMP-3 in response to fluid flow without significant calcium transients. *Journal of Biomechanics* 35:303-309.
430. Archambault JM, Tsuzaki M, Herzog W, Banes AJ (2002) Stretch and interleukin - 1Beta induce matrix metalloproteinases in rabbit tendon cells in vitro. *Journal of Orthopaedic Research* 20 (1):36-39.
431. Brondino L, Suter E, Lee HD, Herzog W (2002) Elbow flexor inhibition as a function of muscle length. *Journal of Applied Biomechanics* 18 (1):46-56.
432. Clark AL, Herzog W, Leonard TR (2002) Contact area and pressure distribution in the feline patellofemoral joint under physiologically meaningful loading conditions. *Journal of Biomechanics* 35 (1):53-60.
433. Herzog W (2002) Editorial on History Dependent Properties of Skeletal Muscle. *Journal of Electromyography and Kinesiology* 12 (6):423-424.
434. Herzog W, Ait-Haddou R (2002) Considerations on muscle contraction. *Journal of Electromyography and Kinesiology* 12:425-433.
435. Herzog W, Leonard TR (2002) Force enhancement following stretching of skeletal muscle: a new mechanism. *Journal of Experimental Biology* 205:1275-1283.
436. Herzog W, Rassier D (2002) History dependence of skeletal muscle force production: a forgotten property. *Journal of Mechanics in Medicine and Biology* 2 (3&4):347-358.
437. Herzog W, Symons B (2002) The mechanics of neck manipulation with special consideration of the vertebral artery. *Journal of the Canadian Chiropractic Association* 46 (3):134-136.
438. Kaya M, Carvalho W, Leonard TR, Herzog W (2002) Estimation of cat medial gastrocnemius fascicle lengths during dynamic contractions. *Journal of Biomechanics* 35:893-902.

439. Lee HD, Herzog W (2002) Force enhancement following muscle stretch of electrically and voluntarily activated human adductor pollicis. *Journal of Physiology (London)* 545:321-330.
440. Rassier D, Herzog W (2002) Force enhancement following an active stretch in skeletal muscle. *Journal of Electromyography and Kinesiology* 12 (6):471-478.
441. Rassier D, Herzog W (2002) Effects of pH on the length-dependent twitch potentiation in skeletal muscle. *Journal of Applied Physiology* 92:1293-1299.
442. Schachar R, Herzog W, Leonard TR (2002) Force enhancement above the initial isometric force on the descending limb of the force-length relationship. *Journal of Biomechanics* 35:1299-1306.
443. Symons B, Leonard TR, Herzog W (2002) Internal forces sustained by the vertebral artery during spinal manipulative therapy. *Journal of Manipulative and Physiological Therapeutics* 25:504-510.
444. Wakeling JM, Kaya M, Temple GK, Johnston IA, Herzog W (2002) Determining patterns of motor recruitment during locomotion. *Journal of Experimental Biology* 205:359-369.
445. Wu JZ, Herzog W (2002) Simulating the swelling and deformation behavior in soft tissues using a convective thermal analogy. *Biomedical Engineering Online* 1:8.
446. Wu JZ, Herzog W (2002) Elastic anisotropy of articular cartilage is associated with the microstructures of collagen fibres and chondrocytes. *Journal of Biomechanics* 35:931-942.
447. Wu JZ, Herzog W, Hasler EM (2002) Inadequate placement of osteochondral plugs may induce abnormal stress-strain distributions in articular cartilage - finite element simulations. *Medical Engineering and Physics* 24 (2):85-97.
448. Ait-Haddou R, Herzog W (2001) Comments on: Theoretical Considerations on cocontractions of sets of agonistic and antagonistic muscles. *Journal of Biomechanics* 34 (7):977-978.
449. Archambault JM, Hart DA, Herzog W (2001) Response of rabbit Achilles tendon to chronic repetitive loading. *Connective Tissue research* 42:13-23.
450. Herzog W (2001) The nature of force depression and force enhancement in skeletal muscle contraction. *European Journal of Sport Science* 1 (3e).
451. Herzog W, Kats M, Symons B (2001) The Effective Forces Transmitted by High-speed, Low-amplitude Thoracic Manipulation. *Spine* 26 (19):2105-2110.
452. Herzog W, Symons B (2001) The biomechanics of spinal manipulation. *Critical Reviews in Physical and Rehabilitation Medicine* 13 (2&3):191-216.
453. Lee HD, Herzog W, Leonard TR (2001) Effects of cyclic changes in muscle length on force production in in-situ cat soleus. *Journal of Biomechanics* 34 (8):979-987.
454. Rassier D, Herzog W (2001) The effects of training on fatigue and twitch potentiation in human skeletal muscle. *European Journal of Sport Science* 1 (3e).
455. Suter E, Herzog W (2001) Effect of the number of stimuli and the timing of twitch application on the variability in interpolated twitch torque. *Journal of Applied Physiology* 90:1036-1040.
456. Suter E, Herzog W, Bray R (2001) Quadriceps activation during different knee extension exercises in patients with ACL pathologies. *Journal of Applied Biomechanics* 17:87-103.
457. Ait-Haddou R, Binding PA, Herzog W (2000) Theoretical considerations on cocontraction of sets of agonistic and antagonistic muscles. *Journal of Biomechanics* 33:1105-1111.
458. Binding PA, Jinha A, Herzog W (2000) Analytic analysis of the force sharing among synergistic muscles in one- and two-degree-of freedom models. *Journal of Biomechanics* 33 (11):1423-1432.
459. Herzog W (2000) Torque: An appraisal of misuse of terminology in chiropractic literature and technique Letter in reply to Harrison et al. (1999) *JMPT* 22 347-348. *Journal of Manipulative and Physiological Therapeutics* 23:298-299.

460. Herzog W (2000) Foot injuries caused by cyclic loading (invited commentary). *Journal of Orthopaedic and Sports Physical Therapy* 30:29.
461. Herzog W (2000) Editorial on International Society of Biomechanics Conference. *Journal of Biomechanics* 33:1187.
462. Herzog W (2000) Muscle properties and coordination during voluntary movement. *Journal of Sports Sciences* 18:141-152.
463. Herzog W, Ait-Haddou R (2000) Coordination of one-and two-joint muscles during voluntary movement: theoretical and experimental considerations. *Motor Control* 4:68-74.
464. Herzog W, Hasler EM, Leonard TR (2000) Experimental determination of in vivo pressure distribution in biologic joints. *Journal of Musculoskeletal Research* 4 (1).
465. Herzog W, Koh TJ, Hasler EM, Leonard TR (2000) Specificity and Plasticity of mammalian skeletal muscles. *Journal of Applied Biomechanics* 16:98-109.
466. Herzog W, Leonard TR (2000) The history dependence of force production in mammalian skeletal muscle following stretch-shortening and shortening-stretch cycles. *Journal of Biomechanics* 33:531-542.
467. Herzog W, Leonard TR, Wu JZ (2000) The relationship between force depression following shortening and mechanical work in skeletal muscle. *Journal of Biomechanics* 33:659-668.
468. Lee HD, Suter E, Herzog W (2000) Effects of speed and distance of muscle shortening on force depression during voluntary contractions. *Journal of Biomechanics* 33 (8):917-923.
469. Neptune RR, Herzog W (2000) Adaptation of muscle coordination to altered task mechanics during steady-state cycling. *Journal of Biomechanics* 33:165-172.
470. Suter E, Herzog W (2000) Does muscle inhibition increase the risk of osteoarthritis following knee injury. *Exercise and Sport Sciences Reviews* 28:15-18.
471. Suter E, McMorland GM, Herzog W, Bray R (2000) Conservative lower back treatment reduces inhibition in knee-extensor muscles: a randomized controlled trial. *Journal of Manipulative and Physiological Therapeutics* 23 (2):76-80.
472. Symons B, Herzog W, Leonard TR, Nguyen H (2000) Reflex responses associated with activator treatment. *Journal of Manipulative and Physiological Therapeutics* 23 (3):155-159.
473. Wu JZ, Herzog W (2000) Finite element simulation of location-and time-dependent mechanical behaviour of chondrocytes in unconfined compression tests. *Annals of Biomedical Engineering* 28:318-330.
474. Wu JZ, Herzog W (2000) Pressure gradient boundary condition for the contact of two biphasic cartilage layers (Letter to the editor). *Journal of Biomechanics* 33:1331-1332.
475. Wu JZ, Herzog W, Epstein M (2000) Joint contact mechanics in the early stages of osteoarthritis. *Medical Engineering and Physics* 22:1-12.
476. Banes AJ, Hersovsky G, Larson C, Tsuzaki M, Judex S, Archambault JM, Zernicke RF, Herzog W, Kelley S, Miller L (1999) Mechanical load stimulates expression of novel genes in vivo and in vitro in avian flexor tendon cells. *Osteoarthritis and Cartilage* 7 (1):141-153.
477. Hasler EM, Herzog W, Wu JZ, Muller W, Wyss U (1999) Articular Cartilage Biomechanics: Theoretical Models, Material Properties, and Biosynthetic Response. *Critical Reviews in Biomedical Engineering* 27 (6):415-488.
478. Herzog W (1999) Commentary: Torque misuse revisited. *Journal of Manipulative and Physiological Therapeutics* 22:347.
479. Herzog W, Scheele D, Conway PJW (1999) Electromyographic responses of back and limb muscles associated with spinal manipulative therapy. *Spine* 24 (2):146-153.
480. Lee HD, Suter E, Herzog W (1999) Force depression in human quadriceps femoris following voluntary shortening contractions. *Journal of Applied Physiology* 87:1651-1655.

481. Liu MM, Herzog W, Savelberg HHCM (1999) Dynamic muscle force predictions from EMG: an artificial neural network approach. *Journal of Electromyography and Kinesiology* 9:391-400.
482. Neptune RR, Herzog W (1999) The association between negative muscle work and pedaling rates. *Journal of Biomechanics* 32:1021-1026.
483. Rassier D, MacIntosh BR, Herzog W (1999) Length dependence of active force production in skeletal muscle. *Journal of Applied Physiology* 86 (5):1445-1457.
484. Suter E, Herzog W, Bray R (1999) Muscle inhibition slows quadriceps rehabilitation and recovery. *BioMechanics* 6:79-86.
485. Suter E, McMorland GM, Herzog W, Bray R (1999) Decrease in quadriceps inhibition after sacroiliac joint manipulation in patients with anterior knee pain. *Journal of Manipulative and Physiological Therapeutics* 22:149-153.
486. Vaz MA, Herzog W (1999) Mechanomyography, a non-invasive technique to study muscular function. *Movimento* 10:15-20.
487. Wu JZ, Herzog W (1999) Modelling concentric contraction of muscle using an improved cross-bridge model. *Journal of Biomechanics* 32:837-848.
488. Wu JZ, Herzog W, Epstein M (1999) Modelling of location-and time-dependent deformation of chondrocytes during cartilage loading. *Journal of Biomechanics* 32:563-572.
489. Archambault JM, Koh TJ, Herzog W, Hart DA (1998) Experimental animal model to study muscle and tendon adaptations to chronic loading. *Journal of Musculoskeletal Research* 2:283-288.
490. Forcinito M, Epstein M, Herzog W (1998) A numerical study of the stiffness of a sarcomere. *Journal of Electromyography and Kinesiology* 8:133-138.
491. Forcinito M, Epstein M, Herzog W (1998) Can a rheological muscle model predict force depression/enhancement? *Journal of Biomechanics* 31:1093-1099.
492. Hart DA, Archambault JM, Kydd A, Reno C, Frank CB, Herzog W (1998) Gender and neurogenic variables in tendon biology and repetitive motion disorders. *Clinical Orthopaedics and Related research* 351:44-56.
493. Hasler EM, Herzog W (1998) Quantification of in vivo patellofemoral contact forces before and after ACL transection. *Journal of Biomechanics* 31:37-44.
494. Hasler EM, Herzog W, Leonard TR, Stano A, Nguyen H (1998) In-vivo knee joint loading and kinematics before and after ACL transection in an animal model. *Journal of Biomechanics* 31:253-262.
495. Herzog W (1998) Muscle modelling (invited editorial). *Journal of Electromyography and Kinesiology* 8:59-60.
496. Herzog W (1998) Torque: Misuse of a misused term. *Journal of Manipulative and Physiological Therapeutics* 21:57-59.
497. Herzog W (1998) Force-sharing among the primary cat ankle muscles. *European Journal of Morphology* 36:280-287.
498. Herzog W (1998) History dependence of force production in skeletal muscle: a proposal for mechanisms. *Journal of Electromyography and Kinesiology* 8:111-117.
499. Herzog W (1998) Letter to the editor re: Colloca CJ, Fuhr A.W. *JMPT* 21:128-129. *Journal of Manipulative and Physiological Therapeutics* 21:373-374.
500. Herzog W, Diet S, Suter E, Mayzus P, Leonard TR, Muller C, Wu JZ, Epstein M (1998) Material and functional properties of articular cartilage and patellofemoral contact mechanics in an experimental model of osteoarthritis. *Journal of Biomechanics* 31:1137-1145.
501. Herzog W, Hasler EM, Maitland ME, Suter E, Leonard TR, Muller C (1998) In vivo mechanics and in situ stability of the anterior cruciate ligament-deficient knee. An animal model of osteoarthritis. *Sportorthopädie Sporttraumatologie* 14 (2):67-74.

502. Herzog W, Leonard TR, Wu JZ (1998) Force depression following skeletal muscle shortening is long lasting. *Journal of Biomechanics* 31:1163-1168.
503. Herzog W, Sokolosky J, Zhang YT, Guimaraes ACS (1998) EMG-force relation in dynamically contracting cat plantaris muscle. *Journal of Electromyography and Kinesiology* 8:147-155.
504. Huber A, Suter E, Herzog W (1998) Inhibition of the quadriceps muscles in elite male volleyball players. *Journal of Sports Sciences* 16:281-289.
505. Koh TJ, Herzog W (1998) Eccentric training does not increase sarcomere number in rabbit dorsiflexor muscles. *Journal of Biomechanics* 31:499-501.
506. Koh TJ, Herzog W (1998) Increasing the moment arm of the tibialis anterior induces structural and functional adaptation: implications for tendon transfer. *Journal of Biomechanics* 31:593-599.
507. Koh TJ, Herzog W (1998) Excursion is important in regulating sarcomere number in the growing rabbit tibialis anterior. *Journal of Physiology (London)* 508 (1):267-280.
508. Maitland ME, Leonard TR, Frank CB, Shrive NG, Herzog W (1998) Longitudinal measurement of tibial motion relative to the femur during passive displacements in the cat before and after anterior cruciate ligament transection. *Journal of Orthopaedic Research* 16:448-454.
509. Maitland ME, Leonard TR, Frank CB, Shrive NG, Herzog W (1998) A method to assess in vivo knee stability longitudinally in an animal model of ligament injury. *Journal of Orthopaedic Research* 16:441-447.
510. Suter E, Herzog W, Bray R (1998) Quadriceps inhibition following arthroscopy in patients with anterior knee pain. *Clinical Biomechanics* 13:314-319.
511. Suter E, Herzog W, De Souza K, Bray R (1998) Inhibition of the quadriceps muscles in patients with anterior knee pain. *Journal of Applied Biomechanics* 14:360-373.
512. Suter E, Herzog W, Leonard TR, Nguyen H (1998) One-year changes in hindlimb kinematics, ground reaction forces and knee stability in an experimental model of osteoarthritis. *Journal of Biomechanics* 31:511-517.
513. Wu JZ, Herzog W, Epstein M (1998) Effects of inserting a pressensor film into articular joints on the actual contact mechanics. *Journal of Biomechanical Engineering* 120:655-659.
514. Wu JZ, Herzog W, Epstein M (1998) Evaluation of the finite element software ABAQUS for biomechanical modelling of biphasic tissues. *Journal of Biomechanics* 31:165-169.
515. Wu JZ, Herzog W, Epstein M (1998) Articular joint mechanics with biphasic cartilage layers under dynamic loading. *Journal of Biomechanical Engineering* 120:77-84.
516. Forcinito M, Epstein M, Herzog W (1997) Theoretical considerations on myofibril stiffness. *Biophysical Journal* 72:1278-1286.
517. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1997) Measurements of vertebral translations using bone pins, surface markers and accelerometers. *Clinical Biomechanics* 12 (5):337-340.
518. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1997) Movements of vertebrae during manipulative thrusts to unembalmed human cadavers. *Journal of Manipulative and Physiological Therapeutics* 20:30-40.
519. Grier A, Charbonneau M, Herzog W, Pedersen DR, Vernon H, Papadopoulos C (1997) Report of the task force on chiropractic research in Canada. *Journal of the Canadian Chiropractic Association* 41:36-61.
520. Herzog W (1997) Verletzungen und Rehabilitation des Skelettmuskels (invited editorial). *Sportverletzung Sportschaden* 11:73.
521. Herzog W (1997) What is the series elastic component in skeletal muscle. *Journal of Applied Biomechanics* 13:443-448.
522. Herzog W (1997) Acoustic Myography (a reply). *Muscle and Nerve* 20:1601-1602.
523. Herzog W (1997) On Internal Forces. *Osterreichische Zeitschrift fur Physikalische Medizin und Rehabilitation* 7 (2):4-8.

524. Herzog W, Hasler EM (1997) Letter to the editor re: Korvick DL, et al. "The use of an implantable force transducer to measure patellar tendon forces in goats". *Journal of Biomechanics* 29:557-561, 1996. *Journal of Biomechanics* 30:303.
525. Herzog W, Leonard TR (1997) Depression of cat soleus force following isokinetic shortening. *Journal of Biomechanics* 30:865-872.
526. Herzog W, Leonard TR (1997) Dynamic force properties of soleus and sensorimotor interactions of soleus, m. gastrocnemius and tibialis anterior in the freely moving cat. *Journal of Musculoskeletal Research* 1 (2):95-109.
527. Herzog W, Suter E (1997) Muscle inhibition following knee injury and disease. *Sportverletzung Sportschaden* 11:74-78.
528. Herzog W, Suter E, Conway PJW (1997) Accelerations recorded from the spinous processes during spinal manipulative treatments of the thoracic spine. *Australasian Chiropractic and Osteopathy* 6 (3):75-79.
529. Herzog W, Vaz MA (1997) Response to letter to the editor re: Vaz MA, et al., *Muscle and Nerve* 19:774-776, 1996. *Muscle and Nerve* 20:253.
530. Prilutsky BI, Herzog W, Allinger TL (1997) Forces of individual cat ankle extensor muscles during locomotion predicted using static optimization. *Journal of Biomechanics* 30 (10):1025-1033.
531. Prilutsky BI, Herzog W, Leonard TR, Allinger TL (1997) Author's response to letter to the editor re: Role of muscle belly and tendon of soleus, gastrocnemius and plantaris in mechanical energy absorption and generation during cat locomotion. *Journal of Biomechanics* 30:309.
532. Savelberg HHCM, Herzog W (1997) Prediction of dynamic tendon forces from electromyographic signals: An artificial neural network approach. *Journal of Neuroscience Methods* 78:65-74.
533. Suter E, Herzog W (1997) Extent of muscle inhibition as a function of knee angle. *Journal of Electromyography and Kinesiology* 7:123-130.
534. Vaz MA, Herzog W, Zhang YT, Leonard TR, Nguyen H (1997) The effect of muscle length on electrically elicited muscle vibrations in the in-situ cat soleus muscle. *Journal of Electromyography and Kinesiology* 7:113-121.
535. Wu JZ, Herzog W, Cole GK (1997) Modeling dynamic contraction of muscle using the cross-bridge theory. *Mathematical Biosciences* 139:69-78.
536. Wu JZ, Herzog W, Epstein M (1997) An improved solution for the contact of two biphasic cartilage layers. *Journal of Biomechanics* 30:371-375.
537. Allinger TL, Herzog W, Epstein M (1996) Force-length properties in stable skeletal muscle fibers--theoretical considerations. *Journal of Biomechanics* 29:1235-1240.
538. Allinger TL, Herzog W, Epstein M (1996) Stability of muscle fibers on the descending limb of the force-length relation. A theoretical consideration. *Journal of Biomechanics* 29:627-633.
539. Cole GK, van den Bogert AJ, Herzog W, Gerritsen KGM (1996) Modelling of force production in skeletal muscle undergoing stretch. *Journal of Biomechanics* 29:1091-1104.
540. Hasler EM, Herzog W, Fick GH (1996) Appropriateness of plane pressure-sensitive film calibration for contact stress measurements in articular joints. *Clinical Biomechanics* 11:358-360.
541. Hasler EM, Herzog W, Ronsky JL (1996) Experimental evaluation of theoretical contact forces in the cat patellofemoral joint. *Journal of Biomechanics* 29:1201-1205.
542. Herzog W (1996) Muscle function in movement and sports. *The American Journal of Sports Medicine* 24:14-19.
543. Herzog W (1996) On sounds and reflexes. *Journal of Manipulative and Physiological Therapeutics* 19:216-218.
544. Herzog W (1996) Response to letter to the editor by E Owens re: Kawchuk GN et al., *JMPT* 19:13-18, 1996. *Journal of Manipulative and Physiological Therapeutics* 19:358.
545. Herzog W, Archambault JM, Leonard TR, Nguyen H (1996) Evaluation of the implantable force transducer for chronic tendon-force recordings. *Journal of Biomechanics* 29:103-109.

546. Herzog W, Hasler EM, Leonard TR (1996) In-situ calibration of the implantable force transducer. *Journal of Biomechanics* 29:1649-1652.
547. Herzog W, Leonard TR (1996) Soleus forces and soleus force potential during unrestrained cat locomotion. *Journal of Biomechanics* 29:271-279.
548. Kawchuk GN, Herzog W (1996) The reliability and accuracy of a standard method of tissue compliance assessment (Letter to editor, in reply). *Journal of Manipulative and Physiological Therapeutics* 19:60-61.
549. Kawchuk GN, Herzog W (1996) A new technique of tissue stiffness (compliance) assessment: its reliability, accuracy, and comparison with existing methods. *Journal of Manipulative and Physiological Therapeutics* 19:13-18.
550. Prilutsky BI, Herzog W, Allinger TL (1996) Mechanical power and work of cat soleus, gastrocnemius, and plantaris muscles during locomotion: Possible functional significance of muscle design and force patterns. *Journal of Experimental Biology* 199:801-814.
551. Prilutsky BI, Herzog W, Leonard TR (1996) Transfer of mechanical energy between ankle and knee joints by gastrocnemius and plantaris muscles. *Journal of Biomechanics* 29:391-403.
552. Prilutsky BI, Herzog W, Leonard TR, Allinger TL (1996) Role of the muscle belly and tendon of soleus, gastrocnemius, and plantaris in mechanical energy absorption and generation during cat locomotion. *Journal of Biomechanics* 29:417-434.
553. Suter E, Herzog W, Huber A (1996) Extent of motor unit activation in the quadriceps muscles of healthy subjects. *Muscle and Nerve* 19:1046-1048.
554. Vaz MA, Herzog W, Zhang YT, Leonard TR, Nguyen H (1996) Mechanism of electrically elicited muscle vibrations in the in-situ cat soleus muscle. *Muscle and Nerve* 19:774-776.
555. Vaz MA, Zhang YT, Herzog W, Guimaraes ACS, MacIntosh BR (1996) The behavior of rectus femoris and vastus lateralis during fatigue and recovery: An electromyographic and vibromyographic study. *Electromyography and Clinical Neurophysiology* 36:221-230.
556. Wu JZ, Herzog W, Ronsky JL (1996) Modeling axi-symmetrical joint contact with biphasic cartilage layers. *Journal of Biomechanics* 29:1263-1281.
557. Yoshihuku Y, Herzog W (1996) Maximal muscle power output in bicycling as a function of rider position, rate of pedalling and definition of muscle length. *Journal of Sports Sciences* 14:139-157.
558. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1995) Forces and relative movements during SMT to an unembalmed post-rigor human cadaver: Peculiarities associated with joint cavitation. *Journal of Manipulative and Physiological Therapeutics* 18:4-9.
559. Guimaraes ACS, Herzog W, Allinger TL, Zhang YT (1995) The EMG-force relationship of the cat soleus muscle and its association with contractile conditions during locomotion. *Journal of Experimental Biology* 198:975-987.
560. Herzog W (1995) Mechanical and physiological responses to spinal manipulative treatments (invited review). *Journal of the Neuromusculoskeletal System* 3:1-9.
561. Herzog W, Conway PJW, Zhang YT, Gal JM, Guimaraes ACS (1995) Reflex responses associated with manipulative treatments on the thoracic spine. *Journal of Manipulative and Physiological Therapeutics* 18:233-236.
562. Herzog W, Leonard TR, Stano A (1995) A system for studying the mechanical properties of muscles and the sensorimotor control of muscle forces during unrestrained locomotion in the cat. *Journal of Biomechanics* 28:211-218.
563. Herzog W, Prilutsky BI (1995) Letter to the Editor re: Relationship between ankle muscle and joint kinetics during the stance phase of locomotion in the cat. Fowler EG, et al *Journal of Biomechanics* 26:465-483, 1993. *Journal of Biomechanics* 28:643-644.
564. Herzog W, Suter E (1995) Response to letter to the editor by P.S. Khalsa re: Suter, E., et al., *JNMS* 2:124-130. *Journal of the Neuromusculoskeletal System* 3:112-114.

565. Kawchuk GN, Herzog W (1995) The reliability and accuracy of a new method of tissue compliance. *Journal of Manipulative and Physiological Therapeutics* 18:298-301.
566. Koh TJ, Herzog W (1995) Evaluation of voluntary and elicited dorsiflexor torque-angle relations. *Journal of Applied Physiology* 79:2007-2013.
567. Maitland ME, Bell GD, Mohtadi NGH, Herzog W (1995) Quantitative analysis of end-feel in Lachman's test. *Clinical Biomechanics* 10:93-97.
568. Ronsky JL, Herzog W, Brown TD, Pedersen DR, Grood ES, Butler DL (1995) In-vivo quantification of the cat patellofemoral joint contact stresses and areas. *Journal of Biomechanics* 28:977-983.
569. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1994) Biomechanical studies of spinal manipulative therapy (SMT): Quantifying the movements of vertebral bodies during SMT. *Journal of the Canadian Chiropractic Association* 38:11-24.
570. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1994) Effects of muscle length on the EMG-force relation of the cat soleus muscle using non-periodic stimulation of ventral root filaments. *Journal of Experimental Biology* 193:49-64.
571. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1994) EMG-force relation of the cat soleus muscle: Experimental simulation of recruitment and rate modulation using stimulation of ventral root filaments. *Journal of Experimental Biology* 186:75-93.
572. Hasler EM, Denoth J, Stacoff A, Herzog W (1994) Influence of hip and knee joint angles on excitation of knee extensor muscles. *Electromyography and Clinical Neurophysiology* 34:355-361.
573. Herzog W (1994) The biomechanics of spinal manipulative treatments. *Journal of the Canadian Chiropractic Association* 38:216-222.
574. Herzog W (1994) Response to Letter to the Editor re: Cavitation sounds during spinal manipulative treatments. Herzog et al., *JMPT* 16(8):523-6. *Journal of Manipulative and Physiological Therapeutics* 17:268-270.
575. Herzog W, Binding PA (1994) Effects of replacing 2-joint muscles with energetically equivalent 1-joint muscles on efficiency-based cost-function values. *Human movement science* 13:569-586.
576. Herzog W, Conway PJW (1994) Gait analysis of sacroiliac joint patients. *Journal of Manipulative and Physiological Therapeutics* 17:124-127.
577. Herzog W, Gal JM (1994) Response to Letter to the Editor re: Biomechanical studies of spinal manipulative therapy: quantifying the movements of vertebral bodies during SMT. Gál J et al. (1994). *Journal of the Canadian Chiropractic Association* 38:166-167.
578. Herzog W, Zatsiorsky VM, Prilutsky BI, Leonard TR (1994) Variations in force-time histories of cat gastrocnemius, soleus, and plantaris muscles for consecutive walking steps. *Journal of Experimental Biology* 191:19-36.
579. Herzog W, Zhang YT, Vaz MA, Guimaraes ACS, Janssen C (1994) Assessment of muscular fatigue using vibromyography. *Muscle and Nerve* 17:1156-1161.
580. Prilutsky BI, Herzog W, Allinger TL (1994) Force-sharing between cat soleus and gastrocnemius muscles during walking: Explanations based on electrical activity, properties, and kinematics of the muscles. *Journal of Biomechanics* 27:1223-1235.
581. Suter E, Herzog W, Conway PJW, Zhang YT (1994) Reflex response associated with manipulative treatment of the thoracic spine. *Journal of the Neuromusculoskeletal System* 2:124-130.
582. Zhang YT, Parker PA, Herzog W, Hulliger M, Guimaraes ACS (1994) Distributed random electrical neuromuscular stimulation: Effects of the inter-stimulus interval statistics on the EMG spectrum and frequency parameters. *Journal of Rehabilitation Research and Development* 31:303-316.
583. Conway PJW, Herzog W, Zhang YT, Hasler EM, Ladly K (1993) Forces required to cause cavitation during spinal manipulation in the thoracic spine. *Clinical Biomechanics* 8:210-214.
584. Herzog W (1993) The physics of spinal manipulation: work-energy and impulse-momentum principles. *Journal of Manipulative and Physiological Therapeutics* 16:51-54.

585. Herzog W, Adams ME, Matyas JR, Brooks JG (1993) A preliminary study of hindlimb loading, morphology and biochemistry of articular cartilage in the ACL-deficient cat knee. *Osteoarthritis and Cartilage* 1:243-251.
586. Herzog W, Binding PA (1993) Co-contraction of pairs of antagonistic muscles: analytical solution for static planar non-linear optimization approaches. *Mathematical Biosciences* 118:83-95.
587. Herzog W, Conway PJW, Kawchuk GN, Zhang YT, Hasler EM (1993) Forces exerted during spinal manipulative therapy. *Spine* 18:1206-1212.
588. Herzog W, Kawchuk GN, Conway PJW (1993) Relationship between preload and peak forces during spinal manipulative treatments. *Journal of the Neuromusculoskeletal System* 1:52-58.
589. Herzog W, Leonard TR, Guimaraes ACS (1993) Forces in gastrocnemius, soleus and plantaris muscles of the freely moving cat. *Journal of Biomechanics* 26:945-953.
590. Herzog W, Read LJ (1993) Anterior cruciate ligament forces in Alpine skiing. *Journal of Applied Biomechanics* 9:260-278.
591. Herzog W, Read LJ (1993) Lines of action and moment arms of the major force carrying structures crossing the human knee joint. *Journal of Anatomy* 182:213-230.
592. Herzog W, Stano A, Leonard TR (1993) A telemetry system to record force and EMG recordings from cat ankle extensor and tibialis anterior muscles. *Journal of Biomechanics* 26:1463-1471.
593. Herzog W, Zhang YT, Conway PJW, Kawchuk GN (1993) Cavitation sounds during spinal manipulative treatments. *Journal of Manipulative and Physiological Therapeutics* 16:523-526.
594. Kawchuk GN, Herzog W (1993) Biomechanical characterization (fingerprinting) of five novel methods of cervical spinal manipulation. *Journal of Manipulative and Physiological Therapeutics* 16:573-577.
595. MacIntosh BR, Herzog W, Suter E, Wiley JP, Sokolosky J (1993) Human skeletal muscle fiber types and force: velocity properties: model and Cybex measurements. *European Journal of Applied Physiology* 67:499-506.
596. Suter E, Herzog W, Sokolosky J, Wiley JP, MacIntosh BR (1993) Fiber type distribution of vastus lateralis muscle as estimated by Cybex testing and by muscle biopsy. *Medicine and Science in Sports and Exercise* 25:363-370.
597. Herzog W (1992) The physics of spinal manipulations. *Journal of Manipulative and Physiological Therapeutics* 15:402-405.
598. Herzog W (1992) Sensitivity of muscle force estimations to changes in muscle input parameters using nonlinear optimization approaches. *Journal of Biomechanical Engineering* 114:267-268.
599. Herzog W, Binding PA (1992) Predictions of antagonistic muscular activity using non-linear optimization. *Mathematical Biosciences* 111:217-229.
600. Herzog W, Kamal S, Clarke HD (1992) Myofibril lengths of cat skeletal muscle: theoretical considerations and functional implications. *Journal of Biomechanics* 25:945-948.
601. Herzog W, Leonard TR, Renaud JM, Wallace JL, Chaki G, Bornemisza S (1992) Force-length properties and functional demands of cat gastrocnemius, soleus and plantaris muscles. *Journal of Biomechanics* 25:1329-1335.
602. Kawchuk GN, Herzog W, Hasler EM (1992) Forces generated during spinal manipulative therapy of the cervical spine: a pilot study. *Journal of Manipulative and Physiological Therapeutics* 15:275-278.
603. Read LJ, Herzog W (1992) External loading at the knee joint for landing movements in alpine skiing. *International Journal of Sports Biomechanics* 8:62-80.
604. Conway PJW, Herzog W (1991) Changes in walking mechanics associated with wearing an intertrochanteric support belt. *Journal of Manipulative and Physiological Therapeutics* 14:185-189.
605. Herzog W (1991) Biomechanical studies of spinal manipulative therapy (invited review). *Journal of the Canadian Chiropractic Association* 35:156-164.
606. Herzog W, Conway PJW, Willcox BJ (1991) Effects of different treatment modalities on gait symmetry and clinical measures for sacroiliac joint patients. *Journal of Manipulative and Physiological Therapeutics* 14:104-109.

607. Herzog W, Guimaraes ACS, Anton MG, Carter-Erdman KA (1991) Moment-length relations of rectus femoris muscles of speed skaters/cyclists and runners. *Medicine and Science in Sports and Exercise* 23:1289-1296.
608. Herzog W, Hasler EM, Abrahamse SK (1991) A comparison of knee extensor strength curves obtained theoretically and experimentally. *Medicine and Science in Sports and Exercise* 23:108-114.
609. Herzog W, Leonard TR (1991) Validation of optimization models that estimate the forces exerted by synergistic muscles. *Journal of Biomechanics* 24 (s1):31-39.
610. Herzog W, Read LJ, ter Keurs HEDJ (1991) Experimental determination of force-length relations of intact human gastrocnemius muscles. *Clinical Biomechanics* 6:230-238.
611. Herzog W, Abrahamse SK, ter Keurs HEDJ (1990) Theoretical determination of force-length relations of intact human skeletal muscles using the cross-bridge model. *European Journal of Physiology* 416:113-119.
612. Hessel BW, Herzog W, Conway PJW, McEwen MC (1990) Experimental measurement of the force exerted during spinal manipulation using the Thompson Technique. *Journal of Manipulative and Physiological Therapeutics* 13:448-453.
613. Yoshihuku Y, Herzog W (1990) Optimal design parameters of the bicycle-rider system for maximal muscle power output. *Journal of Biomechanics* 23:1069-1079.
614. Herzog W, Nigg BM, Read LJ, Olsson E (1989) Asymmetries in ground reaction force patterns in normal human gait. *Medicine and Science in Sports and Exercise* 21:110-114.
615. Herzog W, Read LJ, Conway PJW, Shaw LD, McEwen MC (1989) Reliability of motion palpation procedures to detect sacroiliac joint fixations. *Journal of Manipulative and Physiological Therapeutics* 12:86-92.
616. Herzog W (1988) The relation between the resultant moments at a joint and the moments measured by an isokinetic dynamometer. *Journal of Biomechanics* 21:5-12.
617. Herzog W, Nigg BM, Read LJ (1988) Quantifying the effects of spinal manipulations on gait using patients with low back pain. *Journal of Manipulative and Physiological Therapeutics* 11:151-157.
618. Herzog W, ter Keurs HEDJ (1988) Force-length relation of in-vivo human rectus femoris muscles. *European Journal of Physiology* 411:642-647.
619. Herzog W, ter Keurs HEDJ (1988) A method for the determination of the force-length relation of selected in-vivo human skeletal muscles. *European Journal of Physiology* 411:637-641.
620. Nigg BM, Herzog W, Read LJ (1988) Effect of viscoelastic shoe insoles on vertical impact forces in heel-toe running. *American Journal of Sports Medicine* 16:70-76.
621. Nigg BM, Yeadon MR, Herzog W (1988) The influence of construction strategies of sprung surfaces on deformation during vertical jumps. *Medicine and Science in Sports and Exercise* 20:396-402.
622. Herzog W (1987) Considerations for predicting individual muscle forces in athletic movements. *International Journal of Sports Biomechanics* 3:128-141.
623. Herzog W (1987) Individual muscle force estimations using a nonlinear optimal design. *Journal of Neuroscience Methods* 21:167-179.
624. Herzog W, Nigg BM, Robinson RO, Read LJ (1987) Quantifying the effects of spinal manipulations on gait, using patients with low back pain: a pilot study. *Journal of Manipulative and Physiological Therapeutics* 10:295-299.
625. Robinson RO, Herzog W, Nigg BM (1987) Use of force platform variables to quantify the effects of chiropractic manipulation on gait symmetry. *Journal of Manipulative and Physiological Therapeutics* 10:172-176.
626. Herzog W (1986) Maintenance of body orientation in the flight phase of long jumping. *Medicine and Science in Sports and Exercise* 18:231-241.

WHOLE BOOKS

Published

1. Nigg BM, Herzog W (2007) Biomechanics of the Musculo-skeletal System. John Wiley and Sons, England 3rd Edition, 672 pages.
2. Herzog W (2000) Skeletal Muscle Mechanics: From Mechanisms to Function. John Wiley and Sons, New York pg(s) 554.
3. Herzog W (2000) Clinical Biomechanics of Spinal Manipulation. Churchill Livingstone, New York pg(s) 228.
4. Nigg BM, Herzog W (1999) Biomechanics of the Musculoskeletal System (2nd ed). John Wiley and Sons, Toronto 643 Pages.
5. Epstein M, Herzog W (1998) Theoretical Models of Skeletal Muscle: Biological and Mathematical Considerations. John Wiley and Sons, New York 238 Pages.
6. Nigg BM, Herzog W (1994) Biomechanics of the Musculoskeletal System (1st ed). John Wiley and Sons, Toronto 578 Pages.

BOOK CHAPTERS

Published

1. Howard JJ, Herzog W (2021) Skeletal muscle in cerebral palsy: from belly to myofibril. Cerebral Palsy: New Developments. Edts. Antigone Papvasiliou et al. Frontiers in Neurology and Frontiers in Pediatrics. Frontiers Media SA, Lausanne, Pg(s) 89-103. doi: 10.3389/978-2-88971-367-7
2. Herzog W (2020) Cross-country skiing as a model of human movement analysis. Science and Skiing VIII, Edts. Magdalena Karczewska-Lindinger et al., Vuokatti Sports Technology Unit of the Faculty of Sport and Health Sciences of the University of Jyvaeskylae, Pg(s) 8-19. ISBN 978-951-39-8077-1.
3. Hart DA, Herzog W, Rios JL, Reimer RA, Collins KH (2020) Understanding the initiation and progression of diet-induced obesity and associated pathophysiology: Lessons learned from a rat model. Advances in Biochemistry in Health and Disease: Pathophysiology of Obesity-Induced Health Complications. Editors P. S. Tappia, B Ramjiawan and N. S. Dhalla. Springer Nature, Switzerland. In Press. Pg(s) 117-133. ISBN 978-3-030-35357-5.
4. Herzog W, Killick A, Boldt KR, Onasch F (2017) Energetic and muscle mechanics considerations in cross-country skiing. Science and Skiing VII, Edts. Erich Müller et al., Meyer & Meyer, Germany. Pg(s) 225-238. ISBN 987-1-78255-124-9
5. Herzog W (2015) Biomechanics of musculoskeletal soft tissues. Biomechanics in Encyclopedia of Life Support Systems (EOLSS), Editors M Doblare and J Merodio, UNESCO, UK. pg(s) 88-122.
6. Herzog W, Killick A, Boldt K (2015) Energetic considerations in cross-country skiing. Sports Performance. Springer, Tokyo, Japan pg(s) 247-260.
7. Herzog W (2015) Muscle contraction and sarcomere length non-uniformities. Cells, Forces, and the Microenvironment. Pan Stanford Publishing Pte. Ltd. pg(s) 211-223.
8. Jordan M, Aagaard P, Herzog W (2015) A return to skiing envelope of function for anterior cruciate ligament reconstructed elite alpine ski racers. E. Mueller (Ed.) Science and Skiing VI, Meyer & Meyer Sport Ltd., Maidenhead, UK 6:187-195.
9. Herzog W (2010) The Biomechanics of Movement Control. Danion F and Latash ML (Ed.) Motor Control, Theories, Experiments and Applications. Oxford University Press, New York, USA pg(s) 179-196.
10. Herzog W, Joumaa V, Leonard TR (2010) The force-length relationship of mechanically isolated sarcomeres. D. Rassier (Ed.) Muscle Biophysics: From Molecules to Cells. Springer Verlag, New York 1 (8):141-161.
11. Ait-Haddou R, Herzog W (2009) Brownian Motion. Encyclopedia of Neuroscience. Springer Verlag 1:499-501.

12. Ait-Haddou R, Herzog W (2009) Brownian ratchet. Encyclopedia of Neuroscience. Springer Verlag 1:501-504.
13. Banes AJ, Herzog W (2009) Tendon. Encyclopedia of Neuroscience 5:4050-4051.
14. Herzog W (2009) Articular Cartilage. Encyclopedia of Neuroscience. Springer Verlag 1:179-180.
15. Herzog W (2009) Molecular and cellular biomechanics. Encyclopedia of Neuroscience. Springer Verlag 3:2389-2393.
16. Herzog W (2009) Sliding filament theory. Encyclopedia of Neuroscience. Springer Verlag 5:3745-3748.
17. Herzog W (2009) Distribution Problem in Biomechanics. Encyclopedia of Neuroscience. Springer Verlag 2:983-985.
18. Herzog W (2009) Force depression/enhancement in skeletal muscles. Encyclopedia of Neuroscience. Springer Verlag 2:1600-1604.
19. Herzog W (2009) Measurement Techniques. Encyclopedia of Neuroscience. Springer Verlag 3:2256-2262.
20. Herzog W (2009) Biomechanics. Encyclopedia of Neuroscience 1:415-420.
21. Herzog W, Bourne D, Youssef A (2009) Joint mechanics in osteoarthritis. Pain in Osteoarthritis. Wiley-Blackwell, New Jersey pg(s) 133-155.
22. Suter E, McMorland GM, Herzog W (2009) Short-term effects of spinal manipulation on H-reflex amplitude in healthy and symptomatic subjects. Fascia Research II - Basic Science and Implications for Conventional and Complementary Health Care. Elsevier pg(s) 270-275.
23. Herzog W (2007) Muscle. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 169-217.
24. Herzog W (2007) Tendon/Aponeurosis. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 146-162.
25. Herzog W (2007) Mathematically indeterminate systems. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 609-612.
26. Nigg BM, Herzog W (2007) Joints. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 244-252.
27. Herzog W (2007) Determinants of Muscle Strength. Muscle Strength. Taylor and Francis Ltd. 2 (7):169-202.
28. Herzog W, Federico S (2007) Articular cartilage. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 95-109.
29. von Tscharnar V, Herzog W (2007) EMG. Biomechanics of the Musculoskeletal System (3rd edition). John Wiley and Sons pg(s) 409-448.
30. Herzog W (2005) The Biomechanics of Spinal Manipulation. Critical Reviews in Biomedical Engineering. McGraw Publishers pg(s) 597-609.
31. Ross K, Symons B, Herzog W (2005) Biomechanics of the low back. Conservative Management of Low Back Syndromes. McGraw Publishers pg(s) 63-82.
32. Herzog W (2004) Determinants of Muscle Strength. Muscle Strength. Taylor and Francis Ltd., London, UK 4:45-82.
33. Herzog W, Clark AL, Longino D (2004) Joint mechanics in osteoarthritis. Osteoarthritic Joint Pain. John Wiley and Sons pg(s) 79-99.
34. Li LP, Herzog W (2004) The role of viscoelasticity of collagen fibers in articular cartilage: theory and numerical formulation. Mechanobiology: Cartilage and Chondrocyte, 3. IOS Press, Amsterdam 61 (3):181-194.
35. Herzog W, Ait-Haddou R (2002) Mechanical muscle models and their application to force and power production. Strength and Power in sport (2nd edition). Blackwell Science Ltd 9:154-183.

36. Ait-Haddou R, Herzog W (2000) A general mathematical framework for cross-bridge modelling. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 125-134.
37. Allinger TL, Herzog W, ter Keurs HEDJ, Epstein M (2000) Sarcomere length non-uniformities and stability on the descending limb of the force-length relation of mouse skeletal muscle. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 455-474.
38. Herzog W (2000) Considerations on the mechanisms of muscular contraction. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 3-5.
39. Herzog W (2000) Considerations on the theoretical modelling of skeletal muscle contraction. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 89-94.
40. Herzog W (2000) The mechanical, neuromuscular, and physiological effects produced by spinal manipulation. *Clinical Biomechanics of Spinal Manipulation*. Churchill Livingstone pg(s) 191-207.
41. Herzog W (2000) Considerations on In vivo muscle function. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 259-266.
42. Herzog W (2000) Basic Mechanics. *Clinical Biomechanics of Spinal Manipulation*. Churchill Livingstone pg(s) 1-25.
43. Herzog W (2000) Cellular and molecular muscle mechanics. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 33-52.
44. Herzog W (2000) Muscle activation and movement control. *Biomechanics and Biology of Movement*. Human Kinetics, Champaigne, IL.
45. Herzog W (2000) Force Production in Human Skeletal Muscle. *Biomechanics and Biology of Movement*. Human Kinetics, Champaigne, IL pg(s) 269-281.
46. Herzog W (2000) Mechanical Properties and Performance in Skeletal Muscles. *The IOC Encyclopedia on Biomechanics in Sports*. Blackwell Science Ltd., Oxford pg(s) 21-32.
47. Lee M, Gal JM, Herzog W (2000) Clinical Biomechanics of Manual Therapy. *Clinical Biomechanics*. Churchill Livingstone, Philadelphia pg(s) 209-238.
48. Lemos R, Epstein M, Herzog W, Wyvill B (2000) Three-dimensional geometric model of skeletal muscle. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 179-205.
49. Rassier D, Herzog W (2000) Length dependence of force production and Ca²⁺ sensitivity in skeletal muscle. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 71-86.
50. Suter E, Herzog W (2000) Muscle inhibition and functional deficiencies associated with knee pathologies. *Skeletal Muscle Mechanics: From Mechanisms to Function*. John Wiley and Sons, New York pg(s) 365-375.
51. Herzog W (1999) Biomechanical Analysis of Human and Animal Movement. *Modern Techniques in Neuroscience Research*. Springer Verlag, Heidelberg, Germany pg(s) 821-848.
52. Herzog W, Hasler EM, Maitland ME, Suter E, Leonard TR, Muller C (1999) In vivo mechanics and in situ stability of the anterior cruciate ligament-deficient knee: An animal model of Osteoarthritis. *Outlines of Biomechanics Research*. Yamanashi University Press, University Press pg(s) 11-27.
53. Herzog W (1998) Muscle Synergies During Voluntary Movement. *The Problem of Muscular Synergism* 11:7-22.
54. Herzog W (1997) In vivo muscular forces and joint contact pressures in the freely walking cat. *Biomechanics Seminar*. Biomechanics Press, Goteborg, Sweden. 10:1-20.
55. Herzog W (1996) Force-sharing among synergistic muscles: Theoretical considerations and experimental approaches. *Exercise and Sport Sciences Reviews*. Williams and Wilkins, Baltimore. 24:173-202.
56. Herzog W (1996) Mechanical, physiological, and neuromuscular considerations of chiropractic treatments. *Advances in Chiropractic*. Mosby-Year Book Inc., St.Louis. 3:269-285.
57. Herzog W (1995) Invited Book Review re: Three Dimensional Analysis of Human Movement (Allard P, Stokes IAF, Bianchi J-P, eds). *Human Kinetics, 1995, Leeds. Journal of Manipulative and Physiological Therapeutics* 18:423-424.

58. Herzog W (1990) Biomechanics, unit 4. Sport Medicine Manual. International Olympic Committee, IOC Medical Commission. Hurford Enterprises Ltd., Calgary pg(s) 49-61.

NON-REFEREED PUBLICATIONS

1. Fortuna R, Vaz MA, Sawatsky A, Hart DA, Herzog W (2015) Botox injections: a 'bittersweet' medicine". Atlas of Science. Lay abstract of "A clinically relevant BTX-A injection protocol leads to persistent weakness, contractile material loss, and an altered mRNA expression phenotype in rabbit quadriceps muscles" Journal of Biomechanics.
2. Yaraskavitch M, Leonard TR, Herzog W (2010) Botox produces functional weakness in non-injected muscles adjacent to the target muscle. University of Calgary Leaders in Medicine Research Symposium pg(s) Poster.
3. Herzog W (2004) Retirement symposium for Professor Rodger Woledge. Annual meeting of the Society for Experimental Biology, March 29-April 2.
4. Herzog W (1993) Optimize your output. Impact Magazine 8.
5. Herzog W (1981) Techniques used by world class runners. Athletic Journal 61:58-59.
6. Herzog W (1981) Biomechanics of running. A beginner's guide to the science of jogging and fitness. Oppliger R.A.

EDITOR: JOURNALS AND PROCEEDINGS

1. Herzog W (2002) Proceedings of the Banff Symposium on Skeletal Muscle. Calgary, AB.
2. Herzog W (1999) Proceedings of the Canmore Symposium on Skeletal Muscle. Canmore, Alberta .
3. Herzog W, Jinha A (1999) Proceedings of the 17th Congress of the International Society of Biomechanics. University of Calgary Press, Calgary, Alberta.
4. Herzog W (1998) Invited guest Editor of a special issue on muscle modeling. Journal of Electromyography and Kinesiology 8 (2).
5. Herzog W (1998) Proceedings of the Inaugural Scientific Conference of the Consortium of Canadian Chiropractic Research Centres. University of Calgary Press, Calgary, Alberta.
6. Herzog W (1997) Invited guest Editor of a special issue on skeletal muscle mechanics. Sportverletzungen Sportschaden 11 (3).
7. Herzog W, Nigg BM, van den Bogert AJ (1994) Proceedings of the 8th Biennial Conference of the Canadian Society for Biomechanics.

REFEREED CONFERENCE PROCEEDINGS

1. Bossuyt FM, Leonard T, Abramovic S, Michael Scott W, Sawatsky A, Herzog W (2022) How do muscle forces during everyday life impact tendon strain? Annual Meeting of the Orthopaedic Research Society, Tampa FL, Feb 4-8. Podium Presentation.
2. Karjalainen K, Moo EK, Tanska P, Collins K, Herzog W, Korhonen R. Synovial fluid interleukin-1alpha cannot fully explain proteoglycan degradation in rats. OARSI World Congress of Osteoarthritis, Berlin, Germany, Apr 7-10. Poster Presentation.
3. Leonard T, Faridi W, Ramrattan D, Schappacher-Tilp G, Moo EK, Herzog W. Skeletal muscle titin IG domain refolding after passive lengthening. 66th Biophysical Society Annual Meeting, San Francisco, CA, Feb 19-23. Podium Presentation.
4. Liu S, Joumaa V, Herzog W (2022) Fast stretching of single skeletal muscle fibres abolishes residual force enhancement. 66th Biophysical Society Annual Meeting, San Francisco, CA, Feb 19-23. Poster Presentation.
5. Liu S, Joumaa V, Herzog W (2022) Fast stretching of skeletal muscle fibres abolishes residual force enhancement. Annual Meeting of the Orthopaedic Research Society, Tampa FL, Feb 4-8. Poster Presentation.
6. Orozco G, Ristaniemi A, Haghghatnejad M, Finnilae MJ, Saarakkala S, Herzog W, Isaksson H, Korhonen RK (2022) Anterior cruciate ligament transection alters viscoelastic properties of collagen fibrils in rabbit collateral

- ligaments. Annual Meeting of the Orthopaedic Research **Society**, Tampa FL, Feb 4-8. Podium Presentation. Podium Presentation.
7. Abughazaleh N, Herzog W (2021) Effect of prebiotic fibre supplementation introduced after three weeks of starting a high-fat sucrose diet on body composition, bone mineral content and mineral density. Canadian Arthritis Research Conference. Virtual Event. Feb 16-17, 2021. Poster presentation.
 8. Boldt K, Joumaa V, Herzog W (2021) Whey protein supplementation as an ergogenic aid for cardiac adaptation to aerobic exercise training in rats. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Podium presentation.
 9. Boldt K, Joumaa V, Mattiello S, Herzog W. Consumption of a high-fat-high-sucrose diet partly prevents cardiac mechanical adaptations to aerobic and resistance exercise training. Canadian Society for Exercise Physiology Annual Meeting, Virtual Meeting, Oct 13-16, 2021. Podium Presentation.
 10. Bossuyt FM, Han S-w, Leonard T, Sawatsky A, Zhang Q, Smith IC, Adam N, Taylor WR, Herzog W (2021) The use of a wireless passive electronic strain sensor to measure hysteresis of sheep hindlimb tendons: A first step towards directly comparing in vitro and in vivo tendon properties. 28th Congress of the International Society of Biomechanics, Stockholm, Sweden (Virtual Event), July 25-29, 2021. Podium presentation.
 11. Han SW, Heiser T, Joumaa V, Herzog W. (2021) Is There Force depression in cardiac myofibrils? European Muscle Conference, Online, Sep 20-22. Poster Presentation.
 12. Han S-w, Sawatsky A, Herzog W (2021) The non-intuitive contributions of individual quadriceps muscles to patellar tracking. 28th Congress of the International Society of Biomechanics, Stockholm, Sweden (Virtual Event), July 25-29, 2021. Podium presentation.
 13. Han S-w, Sawatsky A, Herzog W (2021) Patellofemoral joint contact pressures and patellar tracking for activation of individual quadriceps muscles. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Podium presentation.
 14. Han S-w, Sawatsky A, Herzog W (2021) Relationship between weakness of quadriceps muscle and patellofemoral joint kinematics. Canadian Orthopaedic Association COA/CORS/CORA Annual Meeting, Virtual Event, Jun 15-19, 2021. Podium presentation.
 15. Heiser T, Han S-w, Joumaa V, Herzog W (2021) Is force depression present in cardiac muscle? 22nd Alberta Biomedical Engineering Conference, Banff AB, Oct 22-23, 2021. Poster presentation.
 16. Joumaa V, Ames S, Herzog W. Evidence for changes in cross-bridge cycling kinetics after active shortening and stretching. European Muscle Conference, Virtual Meeting, Sep 20-22, 2021. Podium Presentation.
 17. Karjalainen KJ, Tanska P, Collins KH, Herzog W, Korhonen RK, Moo EK (2021) Differential site-specific proteoglycan loss occurs with anterior cruciate ligament transection in obese rats. Annual Meeting of the Orthopaedic Research Society, Long Beach, California, USA (Virtual Event), Feb 13-16. Poster Presentation.
 18. Lawson D, Jordan M, Herzog W (2021) Reliability of knee flexion joint angle measurements with an inertial measurement unit system. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Poster presentation.
 19. Lawson D, Jordan M, Herzog W (2021) Influence of lead leg selection on bilateral drop landing characteristics. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Poster presentation.
 20. Le T, Moo EK, Al-Saffar Y, Seerattan R, Herzog W (2021) effect of age on deformation of a tissue crack in articular cartilage. 22nd Alberta Biomedical engineering Conference, Banff AB, Oct 22-23, Podium presentation.
 21. Li M, Moo EK, Herzog W (2021) Do relaxed sarcomeres return to their original length following repeated activations? 28th Congress of the International Society of Biomechanics, Stockholm, Sweden (Virtual Event), July 25-29, 2021. Poster presentation.
 22. Li M, Leonard T, Herzog W (2021) The mechanics underlying sarcomere length non-uniformities in skeletal muscle. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Poster presentation.

23. Malik M, Joumaa V, Rios J, Holash J, Herzog W. Effects of diet-induced obesity on titin isoforms and content in skeletal muscles of rats. 22nd Alberta Biomedical Engineering Conference, Banff AB, Oct 22-23, 2021. Poster presentation.
24. Medeiros HBO, de Brito Fontana H, Herzog W (2021). Using a physical sarcomere model to demonstrate titin's contributions to residual force enhancement. 28th Congress of the International Society of Biomechanics, Stockholm, Sweden (Virtual Event), July 25-29, 2021. Podium presentation.
25. Millard M, Franklin D, Herzog W (2021) A model of musculo-tendon force and impedance. Dynamic Walking Conference, Virtual Event, Georgia, USA, May 1, Poster Presentation.
26. Moo EK, Korhonen RK, Herzog W (2021). Is there passive force-mediated enhancement of active force in skeletal muscles? 28th Congress of the International Society of Biomechanics, Stockholm, Sweden (Virtual Event), July 25-29, 2021. Podium presentation.
27. Moo EK, Herzog W (2021) Sarcomere length non-uniformity decrease during isometric contractions in intact muscle-tendon units. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Podium presentation.
28. Morris N, Sumar S, Jordan M, Heard M, Herzog W (2021) Form dictates function and the knee joint angle matters: hamstring muscle morphology is associated with knee flexor strength deficits in athletes with acl injury. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Podium presentation.
29. Orava H, Tanska P, Huang L, Ojanen SP, Maekelae, JTA, Finnilae MAJ, Saarakkala S, Herzog W, Korhonen RK, Toeyraes J (2021) The effect of subchondral bone plate thickness and trabecular bone volume fraction on the mechanical behavior of cartilage in post-traumatic osteoarthritis. Annual Meeting of the Orthopaedic Research Society, Long Beach, California, USA (Virtual Event), Feb 13-16. Podium Presentation.
30. Otoo B, Komeili A, Herzog W (2021) Chondrocyte deformation during cyclic loading. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Poster presentation.
31. Robinson K, Lee S, Akins R, Shrader W, Herzog W, Howard J. Use of collagenase clostridium histolyticum to decrease muscle fiber bundle stiffness in cerebral palsy: determination of dose response. American Academy for Cerebral Palsy and Developmental Medicine (AACPD) Annual Meeting, Quebec City, Canada, Virtual Event, Oct 6-9, 2021. Poster Presentation.
32. Smith IC, Herzog W. (2021) Group comparisons of specific force output of permeabilized muscle fibres are more confounded by absolute differences in fibre cross-sectional area than relative differences in cross-sectional area. Acta Biochimica Polonica Vol. 68 No. S1: Supplement: Abstracts of the Virtual European Muscle Conference, Warsaw, September 20–22, 2021 Poster Presentation (Online Format).
33. Smith Ian C, Yeo S-H, Herzog W (2021) The relaxation shoulder is delayed by active stretch at long but not short muscle lengths in rat soleus muscle assessed in situ. 21st Meeting of the Canadian Society for Biomechanics, Montreal QC, Virtual Event, May 25-27, 2021. Poster presentation.
34. Joumaa V, Ortes F, Herzog W (2020) Active and passive contribution to force in skeletal muscle fibres: effect of an active stretch. 64th Annual Meeting of the Biophysical Society, San Diego, CA USA. Feb 15-19. Poster Presentation.
35. Komeili A, Otoo B, Herzog W (2020) Chondrocyte and matrix deformations. Annual Meeting of the Orthopaedic Research Society, Phoenix, AZ, Feb 8-11. Poster Presentation.
36. Moo EK, Sibole SC, Federico S, Herzog W (2020) Simultaneous measurements reveal distinctly different responses to osmotic loading between tissue and cells. Annual Meeting of the Orthopaedic Research Society, Phoenix, AZ, Feb 8-11. Poster Presentation.
37. Ramrattan DA, Otoo BS, Herzog, W (2020) Chondrocyte morphological response during cyclic dynamic loading. 21st Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 23. Podium Presentation.
38. Rytty SJO, Huang L, Korhonen RK, Tanska P, Tiulpin A, Herzog W, Saarakkala SJ, Finnilä MJ (2020) Automatic calcified cartilage segmentation from histological sections of rabbit knees using deep learning. International

Conference on Imaging and Characterization – Future technologies and applications (ICFUTURE), Oulu, Finland, Jan 8-10. Poster Presentation.

39. Smith IC, Lamb A, Adam H, Herzog W. (2020) The anticipation of electrical stimulation causes a sympathetic response sufficient to alter twitch time parameters in adductor pollicis muscle of adult humans. Canadian Society for Exercise Physiology Online Conference, Oct 21-24, Oral Presentation.
40. De Brito Fontana H, Sawatsky A, Han S-w, Herzog W (2019) Agonistic muscle (IN)Balance during synchronized activation. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster Presentation.
41. De Brito Fontana H, Sawatsky A, Han S-w, de Campos D, Herzog W (2019) Loss in agonistic muscle torque during simultaneous (submaximal) activation. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
42. de Campos D, de Brito Fontana H, Sawatsky A, Han S-w, Herzog W (2019) Por Que Os Músculos Agonistas Perdem Seu Potencial De Gerar Força Quando Ativados Simultaneamente? XVIII Congresso Brasileiro de Biomecanica (18th Brazilian Congress of Biomechanics), Manaus, Brazil, May 1 – 4. Podium Presentation.
43. Boldt KR, Joumaa V, Herzog W (2019) Adaptations in maximal force and shortening velocity of cardiac muscle in response to aerobic and resistance exercise. Canadian Society for Exercise Physiology, Kelowna BC. Nov 6-9. Podium Presentation.
44. Boldt K, Joumaa V, Herzog W (2019) Maximum force and velocity properties of cardiac muscle following aerobic and resistance exercise training. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster and Podium Presentations (Finalist ABS J Biomech and ISB David Winter Young Investigator Awards).
45. Boldt KR, Han S-w, Joumaa V, Herzog W (2019) Residual and passive force enhancement in skinned cardiac fibre bundles. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Poster Presentation.
46. Fukutani A, Herzog W (2019) Effect of stretch-shortening cycle is prominent in the reduced force condition. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
47. Gorrell L, Conway PJ, Jinha A, Herzog W (2019) Differences in biomechanical and electromyographic characteristics of successful vs. unsuccessful manual high-velocity, low-amplitude spinal manipulation in an asymptomatic population. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Podium Presentation.
48. Han S-w, Joumaa V, Jinha A, Herzog W (2019) Does the amount of stretching affect residual force enhancement in cardiac myofibrils? European Muscle Conference, Canterbury, UK, Sep 7-11. Oral and Podium Presentations.
49. Han S-w, Joumaa V, Jinha A, Herzog W (2019) Residual force enhancement in cardiac myofibrils. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Podium Presentation.
50. Han S-w, Joumaa V, Jinha A, Herzog W (2019) Residual force enhancement in cardiac myofibrils on the ascending limb of the force-length relationship. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
51. Han S-w, Joumaa V, Jinha A, Herzog W (2019) Do cardiac myofibrils exhibit residual force enhancement properties? 63rd Meeting of the Biophysical Society, Baltimore, MD, Mar 2-6. Poster Presentation.
52. Huang L, Tanska PK, Korhonen RK, Saarakkala SJ, Herzog W, Finnilä M (2019) Novel microcomputed tomography method for thickness analysis of calcified cartilage. OARSI World Congress on Osteoarthritis, Toronto, ON, May 2-5. Poster Presentation.
53. Illg J, Rios JL, Francis D, Manske S, Boyd SK, Hallgrímsson B, Reimer RA, Hart DA, Herzog W (2019) Characterization of subchondral bone morphology in a rat model of metabolic osteoarthritis. 20th Annual Alberta Biomedical Engineering Conference, Banff AB, Oct 25-27. Poster Presentation.
54. Joumaa V, Nazeer S, Herzog W (2019) Force production during eccentric contractions in skinned muscle fibres. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Podium Presentation.

55. Joumaa V, Leonard TR, Herzog W (2019) Residual force enhancement: towards a better understanding of muscle contraction. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Invited Podium Presentation.
56. Joumaa V, Nazeer S, Ortes F, Herzog W (2019) New insights into force after active stretch in damaged skinned muscle fibres. 63rd Meeting of the Biophysical Society, Baltimore, MD, Mar 2-6. Poster Presentation.
57. Komeili A, Otoo B, Crichton R, Herzog W (2019) Cartilage matrix 2d strain distributions for physiological loading conditions. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster Presentation.
58. Leonard T, Joumaa V, Larkin-Kaiser K, Herzog W (2019) Adductor longus myofibrillar passive stiffness is reduced in cerebral palsy. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
59. Lin L, Hatami S, Freed D, Coe JY, Colen T, Sergi C, Thompson R, Di Martino E, Herzog W, Abu Sara Z, Khoo NS (2019). Rapid leaflet expansion is the main adaptive change to maintain tricuspid *TV) competency from detrimental remodeling: a three-dimensional echocardiography (3DE) study in a novel chronic right ventricular (RV) pressure and volume loaded piglet model. American Society of Echocardiography (ASE), Portland ON, Jun 21-25. Poster Presentation.
60. Lin L, Hatami S, Freed D, Coe J, Colen T, Sergi C, Thompson R, Di Martino E, Herzog W, Abu Sara Z, Khoo N (2019) Tricuspid valve (TV) leaflet expansion is the main adaptive change to maintain competency: a three-dimensional echocardiography (3DE) study in a novel chronic right ventricular (RV) pressure and volume loaded piglet model. Canadian Cardiovascular Congress: 71st Annual Meeting of the Canadian Cardiovascular Society, Montreal QC, Oct 24-27. Podium Presentation.
61. Lin LQ, Sigaeva T, Abu Sara Z, Hatami S, Sergi C, Di Martino ES, Herzog W, Thompson R, Coe JY, Colen TM, Freed DH, Khoo NS (2019) Tricuspid Valve (TV) Adaptive Changes to Chronic Right Ventricular (RV) Pressure and Volume Stressors in a Piglet Model Suggest Rapid Increase in Collagen Content: A Pilot Study. American Heart Association Scientific Sessions, Philadelphia PA, Nov 16-18. Podium Presentation.
62. Lin LQ, Hatami S, Thompson R, Sergi C, Coe JY, Colen TM, Di Martino ES, Herzog W, Abu Sara Z, Freed DH, Khoo NS (2019) Tricuspid Valve (TV) Adapt to Chronic Right Ventricular (RV) Pressure and Volume Load Stress by Rapid Leaflet Expansion: A Three-dimensional Echocardiography (3DE) Study in a Novel Piglet Model. American Heart Association Scientific Sessions, Philadelphia PA, Nov 16-18. Poster Presentation.
63. Millard M, Franklin D, Herzog W (2019) A three filament muscle model based on a titin-myosin interaction. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
64. Millard M, Leonard T, Herzog W (2019) Is titin actively preloaded? 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Poster Presentation.
65. Moo EK, Herzog W (2019) Biomechanics of soft tissues: bridging the gap between multiple geometric scales. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Podium Presentation as Recipient of the Promising Scientist Award.
66. Moo EK, Leonard TR, Herzog W (2019) In situ investigation of the sarcomere force-length relationship in intact muscle using second harmonic generation microscopy. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Podium Presentation.
67. Moo EK, Leonard T, Herzog W (2019) The influence of muscle architecture on sarcomere force-length relationship in intact muscle. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
68. Nasir M, MacDonald GZ, Rios JL, Hart D, Reimer R, Herzog W (2019) Differences in subchondral bone fat content of young and adult rats fed a high-fat high-sucrose diet. 20th Annual Alberta Biomedical Engineering Conference, Banff AB, Oct 25-27. Podium Presentation.
69. Nazeer S, Joumaa V, Herzog W (2019) Active and passive contributions to force after damage in skinned muscle fibres. Podium presentation. 20th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 25-27. Podium Presentation

70. Otoo BS, Komeili A, Sibole S, Abusara Z, Herzog W. Chondrocyte volumetric strain measurements across cartilage zones during dynamic loading. 20th Annual Alberta Biomedical Engineering Conference, Banff AB, Oct 25–27. Podium Presentation.
71. Otoo B, Komeili A, Sibole S, Abusara Z, Herzog W (2019) Chondrocyte volumetric strain measurements during cyclic loading. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster and Podium Presentations (Winner David Winter Young Investigator Award).
72. Otoo BS, Herzog W (2019) Developing a system to measure chondrocyte mechanobiology during dynamic loading. OARSI World Congress on Osteoarthritis, Toronto, ON, May 2-5. Poster Presentation.
73. Pigott T, Joumaa V, Rios JL, MacDonald G, Herzog W. Is muscle integrity compromised in a rat model of obesity and metabolic osteoarthritis? 20th Annual Alberta Biomedical Engineering Conference, Banff AB, Oct 25-27. Podium Presentation.
74. Rios JL, Joumaa V, Michaieil J, Reimer RA, Hart DA, Herzog W (2019) The effect of moderate exercise and prebiotic fibre supplementation on vastus lateralis muscle in a rat model of obesity. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster Presentation.
75. Rios JL, Joumaa V, Michaieil J, Reimer RA, Hart DA, Herzog W (2019) Protective effect of moderate exercise and prebiotic fibre supplementation on vastus lateralis muscle in a rat model of obesity. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Poster Presentation.
76. Rios JL, Mather JW, Michaieil J, Mattiello SM, Herzog W (2019) Moderate exercise prevents cartilage softening and muscle structural changes in a rat model of obesity. OARSI World Congress on Osteoarthritis, Toronto, ON, May 2-5. Poster Presentation.
77. Smith IC, Sawatsky A, Herzog W (2019) Relaxation is not accelerated by prior contraction in plantaris muscle of rana pipiens assessed in situ. 27th Congress of the International Society of Biomechanics and 43rd Annual Meeting of the American Society of Biomechanics, Calgary, AB, Jul 31-Aug 4. Poster Presentation.
78. Smith IC, Onasch F, Herzog W (2019) Summation properties are improved by a preceding contraction and intervening rest period. 4th Rocky Mountain Muscle Symposium, Canmore AB, Jul 27-29. Podium Presentation.
79. Boldt K, MacDonald G, Joumaa V, Herzog W (2018) Cardiac mechanical adaptations to dietary-induced childhood obesity in rats. 20th Meeting of the Canadian Society for Biomechanics, Halifax, NS. Aug 14-17. Podium Presentation.
80. De Brito Fontana H, Han S-w, Sawatsky A, Wu K, Herzog W (2018) The role of moment arm and connective tissue linkage in the summation of torque and force of agonist muscles. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Poster Presentation.
81. Chen A, Herzog W (2018) Procedures and software for correcting artifacts in sonomicrometry. 20th Meeting of the Canadian Society for Biomechanics, Halifax, NS, Aug 14-17. Poster Presentation.
82. Collao N, Smith IC, Herzog W (2018) Effects of inorganic phosphate on the force-calcium relationship at different sarcomere lengths in permeabilized rabbit psoas fibres. II Congreso Internacional Asociacion Chilena de Ciencias del Movimiento (ACCM), Santiago de Chile, Aug 2-4. Podium Presentation.
83. Fortuna R, Kirchhuelbel H, Seiberl W, Power GA, Herzog W (2018) Force depression following a stretch-shortening cycle is independent of stretch peak force and work performed during shortening. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Poster Presentation.
84. Fukutani A, Herzog W (2018) Residual force enhancement is attenuated by shortening in a magnitude-dependent manner. 62nd Annual Meeting of the Biophysical Society, San Francisco, CA, Feb 17-21. Poster Presentation.
85. Goecking T, Fortuna R, Seiberl W, Herzog W (2018) Force depression following a stretch-shortening cycle depends on the amount of residual force enhancement established in the initial stretch phase. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Poster Presentation.

86. Correll LM, Conway PJ, Herzog W (2018) Reflex responses of neck, back and limb muscles to high-velocity, low-amplitude manual cervical and upper thoracic spinal manipulation. 20th Canadian Society for Biomechanics Conference, Halifax, NS, Aug 14-17. Poster Presentation.
87. Correll LM, Conway PJ, Herzog W (2018) Neck, back and limb muscle reflex responses to manual cervical and upper thoracic spinal manipulation. Chiropractic and Osteopathic College of Australasia Conference, Sydney, Australia, Aug 31-Sep 2. Poster Presentation.
88. Han S-w, Sawatsky A, Jinha A, Herzog W (2018) Does the loss of vastus medialis alter patellafemoral joint contact pressures in vivo? International Society of Electrophysiology and Kinesiology, Dublin, Ireland, Jun 30 – Jul 2. Podium Presentation.
89. Han S-w, Sawatsky A, Jinha A, Herzog W (2018) Relationship between weakness of quadriceps muscle and joint contact pressure distributions, and patellafemoral pain. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Podium Presentation.
90. Joumaa V, Smith IC, Fukutani A, Leonard T, Ma W, Irving T, Herzog W (2018) Evidence for actin filament structural changes after active shortening in skinned muscle bundles. 62nd Annual Meeting of the Biophysical Society, San Francisco, CA, Feb 17.21. Poster Presentation.
91. Karabulut D, Dogru SC, Lin Y-C, Pandy M, Herzog W, Arslan YZ (2018) Modeling and simulation of the musculoskeletal system of the cat hind limb in Opensim. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Poster Presentation.
92. Komeili A, Luqman S, Abusara Z, Herzog W (2018) Effects of cracks on local strain distributions in articular cartilage. Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
93. Komeili A, Sibole S, Abu Sara Z, Herzog W (2018) Chondrocyte deformations for dynamic loading conditions. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Podium Presentation.
94. Kranenburg E, Kooijman L, Fortuna R, Herzog W (2018) Rate of force development during isometric contraction and induced pre-activated stretch conditions in the human adductor pollicis muscle. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Podium Presentation.
95. MacDonald GZ, Reimer R, Hart D, Herzog W (2018) Eccentric exercise induces great muscle damage in a childhood obesity animal model. 20th Meeting of the Canadian Society for Biomechanics, Halifax, NS, Aug 14-17. Poster Presentation.
96. MacDonald GZ, Collins KH, Rios JL, Hart DA, Seerattan RA, Reimer RA, Herzog W (2018) Exposure of male Sprague-Dawley rats to a high-fat/high-sucrose diet from waning leads to obesity-induction but not overt knee joint damage or an inflammatory state by 17 weeks of age. Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
97. Millard M, Franklin D, Herzog W (2018) A Continuous and Differentiable Mechanical Model of Muscle Force and Impedance. International Symposium on Wearable Robotics, Pisa, Italy, Oct 16-20. Podium Presentation. (Best Paper Award)
98. Moo EK, Herzog W (2018) Sarcomere contractile behaviours are location-dependent in living whole mouse. 20th Meeting of the Canadian Society of Biomechanics, Halifax, NS, Aug 14-17. Podium Presentation.
99. Moo EK, Leonard TR, Herzog W (2018) Is local mean sarcomere length a good force predictor in whole muscle? Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
100. Moo EK, Leonard TR, Herzog W (2018) On using local mean sarcomere length to predict force in whole muscle. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Podium Presentation.
101. Moo EK, Herzog W (2018) Contraction dynamics of in vivo sarcomeres at different anatomical locations in activated whole muscle. 8th World Congress of Biomechanics, Dublin, Ireland, Jul 8-12. Poster Presentation.
102. Morris N, Sumar S, Jordan M, Heard M, Herzog W (2018) Extended field of view ultrasound imaging: tracking changes in hamstring muscle architecture after ACL injury in elite skiers. SPIN Conference, Montreal, QC, Oct 31 – Nov 2. Podium Presentation. (Gord Sleivert Young Investigator Award)

103. Nazeer S, Joumaa V, Herzog W (2018) Force After Active Stretch Is Not Reduced in Damaged Skinned Muscle Fibres. 19th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada. Oct 26-28. Podium Presentation.
104. Ojanen SP, Finnilä MAJ, Saarela K, Mäkelä J, Herzog W, Saarakkala S, Korhonen RK (2018) ACL transection of rabbits alter FCD content, tissue modulus and cell deformation mostly in the lateral femoral condyle cartilage 2 weeks post-surgery. Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
105. Ojanen SP, Finnilä MAJ, Saarela K, Herzog W, Saarakkala S, Korhonen RK (2018) Time-dependent changes of FCD content during the progression of osteoarthritis in rabbits. Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
106. Onasch F, Fortuna R, Herzog W (2018) EMG reflects changes in preferred force magnitude and direction while increasing pedaling effort. 20th Meeting of the Canadian Society for Biomechanics, Halifax, NS, Aug 14-17. Poster Presentation.
107. Otoo B, Jelani N, Komeili A, Herzog W (2018) Cell viability in cartilage with non-impact induced crack. 20th Meeting of the Canadian Society for Biomechanics, Halifax, NS, Aug 14-17. Poster presentation.
108. Rios JL, Mather JW, Herzog W (2018) Moderate exercise prevents cartilage softening in a rat model of obesity. 20th Meeting of the Canadian Society of Biomechanics, Halifax, NS, Aug 14-17. Podium Presentation.
109. Rios J, Reimer RA, Hart DA, Seerattan RA, Herzog W (2018) Preventive effect of a prebiotic fibre supplement on the development of osteoarthritis. OARSI World Congress on Osteoarthritis, Liverpool, United Kingdom, Apr 26-29, Poster Presentation.
110. Sibole S, Moo EK, Federico S, Herzog W (2018) Image-driven modelling and simulation of micro-scale articular cartilage mechanics. 20th Meeting of the Canadian Society of Biomechanics, Halifax, NS, Aug 14-17. Podium Presentation.
111. Tanska P, Ronkainen AP, Fick JM, Reunamo A, Herzog W, Korhonen RK (2018) The ratio between extra- and pericellular matrix proteoglycan content and applied loading magnitude modulates chondrocyte volume loss following partial meniscectomy in the knee – Experimental and computational analysis. Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, Mar 10-13. Poster Presentation.
112. Abusara Z, Andrews S, Koskel M, Herzog W (2017) Menisci prevent cell death in intact and damaged articular cartilage. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation. (ORS Meniscus Section Member Poster Award)
113. Boldt KR, Rios JL, Joumaa V, Herzog W (2017) Mechanical and biochemical adaptations of cardiac muscle to aerobic exercise training. XXVI Congress of the International Society for Biomechanics, Brisbane, Australia, Jul 26. Podium Presentation. (Finalist, David Winter Young Investigator Award)
114. Boldt KR, Rios JL, Joumaa V, Herzog W (2017) Single fibre force production in the triceps surae following chronic exercise training. 18th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 10-12. Poster Presentation.
115. Casula VC, Kajabi AW, Ojanen S, Finnilä M, Korhonen R, Herzog W, Saarakkala S, Nissi MJ, Nieminen MT (2017) Multiparametric MRI assessment reveals early cartilage degeneration at 2 and 8 weeks after anterior cruciate ligament transection in a rabbit model. 25 Annual Meeting of the International Society for Magnetic Resonance in Medicine, Honolulu, HI, Apr 22-27. Poster Presentation.
116. Collins KH, Paul HA, Hart DA, Reimer RA, Herzog W (2017) High-fat, high-sucrose diet rapidly alters muscle integrity, inflammation and gut microbiota in male rats. Banff Inflammation Workshop, Banff, AB, Jan 26-29. Poster Presentation.
117. Collins KH, Hart DA, Seerattan RA, Reimer RA, Herzog W (2017) Diet-induced obesity and the development of hip and shoulder osteoarthritis: insights from a rat model. Annual Meeting of the Orthopaedic Research Society, San Diego, Mar 19-22. Poster Presentation.

118. Collins KH, Hart DA, Seerattan RA, Reimer RA, Herzog W (2017) Diet-induced obesity, systemic inflammation, and the development of hip and shoulder osteoarthritis: insights from a rat model. OARSI World Congress on Osteoarthritis, Las Vegas, NV, Apr 27-30. Poster Presentation.
119. Finnilä MA, Ojanen S, Saarakkala A, Hewitt C, Herzog W, Nieminen P, Hart DA, Korhonen RK (2017) Increased cartilage remodeling and impaired chondrocyte mechanotransduction in early post-traumatic osteoarthritis. OARSI World Congress on Osteoarthritis, Las Vegas, NV, Apr 27-30. Podium Presentation.
120. Fontana HB, Han SW, Sawatsky A, Herzog W (2017). The non-intuitive mechanics of agonistic muscles. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Podium Presentation.
121. Fontana HB, Han SW, Sawatsky A, Herzog W (2017). The non-intuitive mechanics of agonistic muscles. XVII Brazilian Congress of Biomechanics, Porto Alegre, Brazil, May 8-11. Podium Presentation.
122. Fortuna R, Groeber M, Seiberl W, Power GA, Herzog W (2017) Shortening-induced force depression is modulated in a time- and speed-dependent manner following a stretch-shortening cycle. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Poster Presentation.
123. Fortuna R, Sawatsky A, Fuller JC, Herzog W (2017) Does HMB preserve strength and muscle mass in muscles exposed to Botox treatments. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Poster Presentation.
124. Fortuna R, Groeber M, Seiberl W, Power GA, Herzog W (2017) Shortening-induced force depression is modulated in a time- and speed-dependent manner following a shortening-stretching cycle. 41st Annual Meeting of the American Society of Biomechanics, Boulder, CO, Aug 8-11. Poster Presentation.
125. Fortuna R, Sawatsky A, Fuller JC, Herzog W (2017) Does HMB preserve strength and muscle mass in muscles exposed to Botox treatments. 41st Annual Meeting of the American Society of Biomechanics, Boulder, CO, Aug 8-11. Poster Presentation.
126. Fukutani A, Joumaa V, Herzog W (2017) Influence of residual force enhancement and elongation of attached cross-bridges on the stretch-shortening cycle. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Podium Presentation.
127. Fukutani A, Herzog W (2017) Relationship between residual force enhancement and muscle fatigue. 41st Annual Meeting of the American Society of Biomechanics, Boulder, CO, Aug 8-11. Poster presentation.
128. Han S-K, Ronkainen A, Saarakkala S, Rieppo L, Herzog H, Korhonen R (2017) Alterations in structural macromolecules in ECM and PCM in early OA lapine cartilage model. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation.
129. Han S-w, Sawatsky A, Jinha A, Herzog W (2017) Changes in patellofemoral joint mechanics in the presence of quadriceps muscle imbalance. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Podium Presentation. (Finalist, David Winter Young Investigator Award)
130. Hessel AL, Joumaa V, Herzog W; Nishikawa KC (2017) A role for titin in the activation-dependent shift of the force-length relationship in skeletal muscle. 46th European Muscle Conference, Sep 19-22, Potsdam, Germany. Poster Presentation.
131. Joumaa V, Bertrand F, Liu S, Poscente S, Herzog W (2017) Partial titin degradation increases sarcomere length non-uniformities and reduces absolute residual force enhancement after active stretch in single myofibrils. 46th European Muscle Conference, Sep 19-22, Potsdam, Germany. Poster Presentation.
132. Komeili A, Chau W, Al-Saffar Y, Herzog W. (2017) Mechanical response of articular cartilage damaged by macro cracks. OARSI World Congress on Osteoarthritis, Las Vegas, NV, Apr 27-30. Podium Presentation.
133. Komeili A, Abusara Z, Federico S, Herzog W (2017). Axial strain variations thorough cartilage depth. Canadian Conference of Applied Mechanics (CANCAM), Victoria, BC, May 29 – Jun 1. Podium Presentation.
134. Leonard T, Herzog W (2017) Activated skeletal muscle myofibrils have different peak stresses at similar sarcomere lengths when lengthened beyond myofilament overlap. 61st Annual Meeting of the Biophysical Society, New Orleans LA, Feb 11-15. Podium Presentation.

135. Leonard T, Herzog W (2017) Locally deactivated sarcomeres do not over-lengthen in myofibrils. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Podium Presentation.
136. Liu S, Joumaa V, Herzog W (2017) The origin of the force increase observed after active stretch beyond myofilament overlap in single muscle fibers. 61st Annual Meeting of the Biophysical Society, New Orleans, LA, Feb 11-15. Poster Presentation.
137. Lugman S, Komeili A, Abusara A, Herzog W (2017) Effects of cracks on local strain distributions in articular cartilage. 18th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 10-12. Poster Presentation.
138. MacDonald GZ, Mazara N, Herzog W, Power GA (2017) The bilateral deficit: a difference in contralateral limb torque. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, July 23-27. Podium Presentation.
139. Michaiei J, Rios JL, Seerattan R, Herzog W (2017) Is prebiotic fibre supplementation effective in preventing structural changes in vastus lateralis muscle in a rat model of obesity? 18th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 10-12. Poster Presentation.
140. Moo EK, Sibole SC, Han SK, Herzog W (2017) In situ mapping of three-dimensional strain in live cartilage using multi-photon microscopy. 4th Annual McCaig Meeting on Musculoskeletal Diseases, Calgary, AB, May 12. Podium Presentation.
141. Moo EK, Leonard T, Herzog W (2017) Increased non-uniformity in in vivo sarcomere length during a tetanic contraction. 61st Annual Meeting of the Biophysical Society, New Orleans LA, Feb 11-15. Poster Presentation.
142. Moo EK, Sibole SC, Han S-K, Herzog W (2017) Three-dimensional Micro-scale strain mapping in live cartilage. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation.
143. Moo EK, Sibole SC, Herzog W (2017) A novel imaging approach for morphological analysis of the pericellular matrix in live cartilage. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation.
144. Moo EK, Leonard TR, Herzog W (2017) In vivo sarcomere length distribution during a tetanic contraction. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Poster Presentation.
145. Moo EK, Sibole SC, Han SK, Herzog W (2017) In situ mapping of three-dimensional strain in live cartilage. XXVI Congress of the International Society of Biomechanics, Brisbane, Australia, Jul 23-27. Poster Presentation.
146. Ojanen SP, Finnilä MA, Saarela K, Happonen E, Herzog W, Saarakkala S, Korhonen R (2017) Site-specific changes in deformation of articular cartilage chondrocytes at very early stage of post-traumatic OA. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation.
147. Ojanen SP, Finnilä MA, Mäkelä J, Saarela K, Happonen E, Herzog W, Saarakkala S, Korhonen R (2017) Site-specific changes of articular cartilage biomechanics and chondrocyte deformation in early OA. 23rd Congress of the European Society of Biomechanics, Seville, Spain, Jul 2-5. Podium Presentation.
148. Onasch F, Fortuna R, Herzog W (2017) Effects of constrained force application on muscle work and pedaling efficiency. 41st Annual Meeting of the American Society of Biomechanics, Boulder CO, Aug 8-11. Poster Presentation
149. Rios JL, Hart DA, Reimer RA, Seerattan RA, Herzog W (2017) Moderate exercise inhibits the development of knee OA-like changes in a rat model of diet-induced obesity. 4th Annual McCaig Meeting on Musculoskeletal Diseases, Calgary, AB, May 12. Podium Presentation.
150. Rios JL, Hart DA, Reimer RA, Collins KH, Seerattan RA, Herzog W (2017) Moderate exercise inhibits the development of knee osteoarthritis-like changes in a rat model of diet-induced obesity. OARSI World Congress on Osteoarthritis, Las Vegas, NV, Apr 27-30. Poster Presentation.
151. Rios JL, Hart DA, Reimer RA, Seerattan RA, Herzog W (2017) Moderate exercise and dietary fibre supplementation inhibits the development of knee OA-like changes in a rat model of diet-induced obesity. Bone and Joint Health Strategic Clinical Network Workshop: Obesity - Implication for Care of Albertans with Osteoarthritis, Alberta Health Services, Leduc AB, June 13-14, 2017. Poster Presentation. (3rd Place Poster Award)

152. Ronkainen A, Tanska P, Fick J, Herzog W, Korhonen R (2017) Biomechanical responses of chondrocytes after partial meniscectomy – importance of cartilage structure. Annual Meeting of the Orthopaedic Research Society, San Diego CA, Mar 19-22. Poster Presentation.
153. Santos AG, Gervasio FM, Herzog W, Menezes RL, Ribeiro DM (2017) Gait symmetry after stroke: Do cerebral hemispheres influence equally? 21st IAGG World Congress of Gerontology & Geriatrics, San Francisco CA, July 23-27. Poster Presentation.
154. Sibole S, Moo EK, Herzog W (2017) A method to measure 3D micro-scale deformation of biological tissue. 18th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 10-12. Poster Presentation.
155. Smith IC, Ali J, Power GA, Herzog W (2017) Sag is dependent on muscle length and the inter-pulse interval of stimulation in human adductor pollicis muscle. Exercise Neuroscience Meeting, Guelph, ON, Jun 15-16. Podium Presentation.
156. Smith IC, Ali J, Power GA, Herzog W (2017) The sag response in human adductor pollicis muscle. 46th European Muscle Conference, Sep 19-22, Potsdam, Germany. Poster Presentation.
157. Wu K, Han S-w, Sawatsky A, Herzog W (2017) Experimental approach to the mechanics of agonistic muscles. 18th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 10-12. Podium Presentation. (Best Oral Presentation Award, Canadian Society of Biomechanics).
158. Al-Saffar Y, Pinguan-Murphy B, Herzog W (2016) Predicting Cartilage Crack Morphology. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
159. Boldt K, Rios JL, Herzog W (2016) Force properties of skinned cardiac myocyte bundles following 11-week treadmill training. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
160. Boldt K, Rios JL, Joumaa V, Herzog W (2016) Cardiac muscle and cell-level adaptations to 11-week treadmill training and overtraining. 40th American Society of Biomechanics Annual Meeting, Raleigh, NC, Aug 2-5. Poster Presentation.
161. Boldt KR, Rios JL, Joumaa V, Herzog W (2016) Cardiac myocyte bundle peak power output following chronic cardiovascular training in rats. Canadian Society for Exercise Physiology, Victoria BC, Oct 15. Podium Presentation.
162. Chau W, Komeili A, Al-Saffar Y, Herzog W (2016) The effect of macro cracks on the load bearing capacity of articular cartilage. 17th Annual Alberta Biomedical Engineering Conference, Banff AB, Oct 21-23. Poster Presentation.
163. de Brito Fontana H, Herzog W (2016) Vastus lateralis maximum force-generating potential occurs at optimal fascicle length regardless of activation level. 40th American Society of Biomechanics Annual Meeting, Raleigh, NC, Aug 2-5. Podium Presentation.
164. Collins K, Hart D, Herzog W, Reimer R (2016) Muscles display differential regulatory responses and intramuscular fat accumulation with short term exposure to high fat high sucrose diet in rats. Keystone Symposia meeting on Molecular and Cellular Basis of Growth and Regeneration, Breckenridge, CO, Jan 10-14. Poster Presentation.
165. Collins KHM, Hart DA, Reimer RA, Herzog W (2016) High fat high sucrose diet results in early morphological and pro-inflammatory changes in the vastus lateralis muscle – implications for metabolic osteoarthritis. Orthopaedic Research Society Annual Meeting, Orlando, FL, Mar 5-8. Poster Presentation.
166. Collins K, Herzog W (2016) Short-term high fat-sucrose metabolic challenge results in compromised muscular integrity, alterations in gut microbiota and oxidative stress. 3rd Annual McCaig Meeting on Musculoskeletal Diseases, Calgary, AB, May 6. Podium Presentation.
167. Collins K, Sawatzky A, hart DA, Smith IC, Herzog W (2016) The rat soleus muscle maintains structural and functional integrity with diet-induced obesity. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
168. Dholakia C, Waters-Banker C, Power GA, Herzog W (2016) Is fast food speeding up the aging process? Comparing the skeletal muscle inflammatory environment in diet induces obesity model and aging model.

International Conference for Healthcare and Medical Students (ICHAMS), Dublin, Ireland. Feb 19-20. Presentation.

169. Engel M, Leonard T, Herzog W (2016) Continuous electrical stimulation of skeletal muscles results in sarcomere non-uniformity and disorganization. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
170. Hahn D, Seiberl W, Power GA, Herzog W (2016) Increased performance during the stretch-shortening cycle – more than stretch reflex and recoil of elastic energy. 40th American Society of Biomechanics Annual Meeting, Raleigh, NC, Aug 2-5. Podium Presentation.
171. Holash RJ, Smith IC, Herzog W, MacIntosh BR (2016) Increased occupation of sarcomeric calcium buffers reduces required calcium release for similar troponin-c binding of subsequent activation. 45th European Muscle Conference, Montpellier, France, Sep 2-6. Poster Presentation.
172. Issler A, Collins K, Herzog W (2016) Does fibrosis differ by obesity response in the vastus lateralis muscles of rats? National Undergraduate Research Conference, Toronto, ON, Apr 1. Poster Presentation.
173. Jordan M, Heard M, Doyle-Baker P, Aagaard P, Herzog W (2016) Associated pathology and limb asymmetry in acl reconstructed elite alpine racers. International Congress on Science and Skiing, St. Christoph, Austria, Dec 10-15. Podium Presentation.
174. Joumaa V, Kim SY, Seerattan R, Herzog W (2016) Does titin explain the high passive force observed in frog tibialis anterior muscle? Experimental Biology, San Diego, CA, Apr 2-6. Poster Presentation.
175. Joumaa V, Smith IC, Leonard TR, Antipova O, Irving TC, Herzog W (2016) Effect of active shortening and stretching on lattice spacing and cross-bridge binding in skinned muscle fibres. 60th Annual Meeting of the Biophysical Society, Los Angeles, CA, Feb 27 – Mar 2. Poster Presentation.
176. Joumaa V, Fitzowitch A, Herzog W (2016) Energy cost of isometric force production after active shortening in skinned muscle fibres. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
177. Karabulut D, Dogru S, Arslan Y, Lin Y, Pandy M, Herzog W (2016) Development of a computational musculoskeletal model of the cat hind limb. International Conference of the Polish Society of Biomechanics, Biala Podlaska, Poland, Sep 5-7. Podium Presentation.
178. Ko L, Joumaa V, Rios JL, Sawatsky A, Herzog W (2016) Mechanical properties and collagen composition of the tail tendon in rats fed with a high fat and sucrose diet: Effects of exercise and dietary fiber supplement. 17th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 21-23. Podium Presentation. (Best Posium Presentation Award)
179. Komeili A, Al-Saffar Y, Herzog W (2016) Crack opening in mature and immature cartilage. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Poster Presentation.
180. Komeili A, Moo EK, Federico S, Herzog W (2016) A continuum depth-dependent biphasic model of cartilage. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Poster Presentation.
181. Liu S, Joumaa V, Herzog W (2016) New insight into the active force produced by skeletal muscle after stretch. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
182. Liu S, Joumaa V, Herzog W (2016) Force after active stretch beyond myofilament overlap: titin and/or cross bridges? 17th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 21-23. Poster Presentation.
- G, Herzog W (2016) Altered skeletal muscle function with dietary-induced obesity. 13th International Congress on Obesity, Vancouver, BC, May 1-4. Podium Presentation.
183. MacDonald G, Herzog W (2016) Skeletal muscle alterations resulting from diet induced obesity. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Poster Presentation.
184. Maleki M, Herzog W, Federico S (2016) Modelling large deformation-dependent permeability of articular cartilage. 22nd Congress of the European Society of Biomechanics, Lyon, France, Jul 10 – Jul 13. Podium Presentation.

185. Mather J, Rios JL, Herzog W (2016) Can exercise prevent osteoarthritis-like changes in the tibial plateau of rats exhibiting diet induced obesity? 17th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 21-23. Podium Presentation.
186. Moo EK, Fortuna R, Abusara Z, Herzog W (2016) Sarcomere length and passive sarcomere lengthening are location-dependent in live mouse tibialis anterior muscle. 60th Annual Meeting of the Biophysical Society, Los Angeles, CA, Feb 27 – Mar 2. Poster Presentation.
187. Moo EK, Fortuna R, Sibole S, Abusara Z, Herzog W (2016) Sarcomere lengths and sarcomere elongations are not uniform in an intact in vivo muscle. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
188. Otoo B, Rodriguez M, Hart D, Herzog W, LePing Li (2016) Loading rate dependent cartilage mechanical behavior and gene expression in the intact knee joint. 22nd Congress of the European Society of Biomechanics, Lyon, France, Jul 10 – Jul 13. Podium Presentation.
189. Poscente S, Larkin-Kaiser KA, Leonard T, Herzog W (2016) Muscle adaptation with acute electrical stimulation in a rabbit model. 17th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 21-23. Poster Presentation.
190. Powers K, Joumaa V, Nishikawa K, Herzog W (2016) Deficient force enhancement in titin mutated single fibers. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Poster Presentation.
191. Rios JL, Boldt K, Seerattan RA, Hart D, Herzog W (2016) High mileage walking does not lead to osteoarthritis changes in the rat knee. OARSI World Congress on Osteoarthritis, Amsterdam, NL, Mar 31 – Apr 4. Poster Presentation.
192. Rios J, Herzog W (2016) High mileage walking does not lead to osteoarthritis changes in the rat knee. 3rd Annual McCaig Meeting on Musculoskeletal Diseases, Calgary, AB, May 6. Podium Presentation.
193. Rios JL, Boldt K, Seerattan R, Hart DA, Herzog W (2016) A prolonged program of brisk walking does not lead to osteoarthritis-like changes in the rat knee. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
194. Rios JL, Hawes T, Joumaa V, Herzog W (2016) Effects of exercise and dietary fibre supplementation on the myosin heavy chain isoforms in rats with diet-induced obesity. 17th Annual Alberta Biomedical Engineering Conference, Banff, Alberta, Oct 21-23. Poster Presentation
195. Ronkainen A, Reunamo A, Fick J, Herzog W, Korhonen R (2016) Changes in the local proteoglycan content of the pericellular matrix are highly site-specific and related to cell deformation behavior 3 days after a partial meniscectomy in the rabbit knee joint. Orthopaedic Research Society Annual Meeting, Lake Buena Vista, FL, Mar 5-8. Poster Presentation.
196. Ronkainen A, Fick J, Herzog W, Korhonen R (2016) Collagen content in the local cartilage matrix controls chondrocyte shape changes in mechanically loaded healthy tissue. Orthopaedic Research Society Annual Meeting, Lake Buena Vista, FL, Mar 5-8. Poster Presentation.
197. Smith IC, Herzog W, Tupling AR (2016) The viscosity of relaxed skeletal muscle increases following disruption of the short-range elastic component. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Podium Presentation.
198. Smith IC, O'Reilly JJ, Collins K, Sawatsky A, Herzog W (2016) The effects of a high fat, high sugar diet on the contractile properties of permeabilised rat vastus intermedius fibres. 19th Canadian Society for Biomechanics Biennial Meeting, Hamilton, ON, Jul 19-22. Poster Presentation.
199. Smith IC, Bellissimo C, Herzog W, Tupling R (2016) The fibre-type dependence of sag during unfused tetanic contractions can be explained by differences in cytosolic inorganic phosphate concentration. 45th European Muscle Conference, Montpellier, France, Sep 2-6. Poster Presentation.
200. Abusara Z, Kossel M, Herzog W (2015) In vivo static and dynamic deformation of articular cartilage. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.

201. Al-Saffar Y, Pingguan-Murphy B, Herzog W (2015) Deformation patterns of cracked articular cartilage under compression. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
202. Boldt K, Joumaa V, Herzog W. Residual force enhancement in cardiac myofibrils. 59th annual meeting of the Biophysical Society, Baltimore USA, Feb 7-11. Poster Presentation.
203. Boldt K, Joumaa V, Herzog W (2015) Does cardiac muscle exhibit history-dependent properties? 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
204. Boldt KR, Rios JL, Herzog W (2015) Developing and Characterizing Cardiovascular Training and Overtraining Protocols in Rats. Canadian Society for Exercise Physiology Annual General Meeting, Hamilton, ON. October 15, 2015. Podium Presentation.
205. Borthwick MJ, Collings KH, Sawatsky AJ, Aurka S, Smith IC, Herzog W (2015) Diet induced obesity may affect the force-velocity relationship in rat soleus. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Podium Presentation.
206. Collins KH, Paul HA, Reimer RA, Serrattan RA, Hart DA, Herzog H (2015) Relationship between the gut microbiota, lipopolysaccharide, inflammation, and metabolic osteoarthritis development: Studies in a rat model. OARSI World Congress of Osteoarthritis, Seattle, WA, April 30 – May 3. Poster Presentation.
207. Collins KH, Hart DA, Raimer RA, Herzog W (2015) Diet-induced obesity leads to increased expression of adipokines by intraarticular tissues and osteoarthritis-like changes in the rat knee. Annual Meeting of the Orthopedic Research Society, Las Vegas, NV, March 27-28. Poster Presentation.
208. Collins KH, Hart DA, Seerattan RA, Reimer RA, Herzog W (2015) Chronic Inflammation and metabolic osteoarthritis: evidence of time-course changes in a rat model. Canadian Student Health Research Forum, Winnipeg, MB, June 2-4. Poster Presentation.
209. Collins KH, Seerattan RA, Herzog W (2015) The skinny on osteoarthritis – does body fat affect quadriceps muscle composition? 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.
210. Collins KH, Hart DA, Reimer RA, Seerattan RA, Herzog W (2015) Short-term exposure to a high fat high sucrose diet results in rapid intramuscular fat deposition and altered inflammatory environment. Obesity Week Conference, Los Angeles, CA, Nov. Poster Presentation.
211. Crooks S, Power GA, Herzog W (2015) Muscle fascicle length is reduced in old age owing to shorter sarcomeres and serial sarcomere loss. Leaders in Medicine Symposium, University of Calgary, October 30, Calgary, AB. Poster Presentation.
212. Engel M, Leonard T, Herzog W (2015) Long-term stimulation results in sarcomere length non-uniformity. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
213. Fick J, Ronkainen A, Sawatsky A, Madden R, Herzog W (2015) Early in situ site-specific changes in chondrocyte biomechanical responses due to a partial meniscectomy in the lateral compartment of the mature rabbit knee joint. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
214. Fontana HB, Roesler, H, Herzog W (2015) Vastus lateralis fascicle force-length relationship for maximal and submaximal activation. 26th Brazilian congress of Biomechanics, Florianopolis, Brazil, May 7. Podium Presentation.
215. Fortuna R, Power GA, Herzog W (2015) The magnitude of stretch-induced force enhancement following shortening is time-dependent. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.
216. Fukutani A, Sawatsky A, Leonard T, Herzog W (2015) Does Achilles tendon contribute to the force potentiation induced by stretch-shortening cycle? 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
217. Han SK, Mäkitalo J, Saarakkala S, Rieppo L, Federico S, Herzog W, Chun KJ, Korhonen RK (2015) The biomechanical role of pericellular matrix in early osteoarthritis cartilage of lapine retropatellar. Korean Society for Precision Engineering Fall Conference, Gyeongju, Korea, Dec 16-18. Poster Presentation (Best Paper Award).

218. Herzog J, Leonhard TR, Jinha A, Herzog W (2015) Titin hysteresis is greater for actively lengthened compared to passively lengthened skeletal muscle sarcomeres. 59th Annual Meeting of the Biophysical Society, Baltimore, MD, Feb 7-11. Poster Presentation.
219. Johnston KR, Jinha A, Herzog W (2015) The role of sarcomere length non-uniformities in residual force enhancement. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
220. Jordan M, Aagaard P., Herzog W (2015) Fatigue Impairs Landing Quadriceps-Hamstrings Co-activity and Causes Asymmetry in Elite Ski Racers With/Without ACL Reconstruction. Sport Innovation Summit, Toronto, ON, Oct 26-27. Podium Presentation.
221. Jordan MJ, Barnert J, Aagaard P, Herzog W (2015) The kinetic impulse asymmetry index in the vertical jump predicts lower body injury in elite athletes. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
222. Joumaa V, Herzog W (2015) Calcium sensitivity after active shortening in rabbit psoas fibres. 59th Annual Meeting of the Biophysical Society, Baltimore, MD, Feb 7-11. Poster Presentation.
223. Kuznetsova S, Villemure I, Abu Sara Z, Moo EK, Al-Saffar Y, Herzog W (2015) In situ chondrocyte viscoelasticity following static and dynamic compressions. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Poster Presentation.
224. Larkin-Kaiser K, Joumaa V, Leonhard T, Howard J, Herzog W (2015) Larger isoforms of titin are associated with increased sarcomere lengths and severity of hip displacement in cerebral palsy. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.
225. Leonhard TR, Herzog J, Jinha A, Herzog W (2015) Peak force and hysteresis in actively and passively lengthened skeletal muscle myofibrils at very long sarcomere length. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
226. Liu, Shyue, Joumaa V, Herzog, W (2015) Is titin responsible for force enhancement in skeletal muscle? 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Poster Presentation.
227. Martis G, Johnston K, Jinha A, Leonhard T, Herzog W (2015) Titin hysteresis and elasticity in actively stretched muscle myofibrils. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Podium Presentation.
228. Moo EK, Kuznetsova S, Herzog W (2015) Adaptation of chondrocytes to mechanical compression: are membrane ruffles unfolded for cell protection? 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12- 16th. Podium Presentation.
229. Moo, EK, Sibole SC, Herzog W (2015) A novel approach to visualise the morphology of pericellular matrix in live cartilage. XXV Congress of the International Society of Biomechanics, Glasgow, UK, July 12- 16. Podium Presentation.
230. Moo EK, Amrein M, Epstein M, Duvall M, Abu Osman NA, Pinguan-Murphy B, Herzog W (2015) Strain rate-dependent membrane reservoir- key to chondrocyte death by impact. 2nd Annual Alberta Nanotechnology Symposium, Banff, AB, May 30-31. Podium Presentation.
231. Moo EK, Herzog W (2015) Protective mechanism adopted by chondrocytes through unfolding of surface ruffles during mechanical compression. Orthopaedic Research Society (ORS) Annual Meeting, Las Vegas, Nevada, United States, March 28-31. Poster Presentation.
232. Power G, Flaaten N, Dalton B, Herzog W (2015) An increased proportion of weakly bound cross-bridges contribute to the age-related maintenance of eccentric strength. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Poster Presentation.
233. Power GA, Fletcher J, Herzog W, MacIntosh BR (2015) Comparing apples and oranges: superimposed twitch vs. a control twitch in estimating voluntary activation. American College of Sports Medicine Annual Meeting, San Diego, CA, May 26-30. Poster Presentation.
234. Power GA, Crooks S, Fletcher JR, MacIntosh BR, Herzog W (2015) Age-related reductions in the length and number of serial sarcomeres contribute to shortened fascicle lengths: A source of elevated passive tension in the

- elderly? 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.
235. Powers K, Nishkawa K, Herzog W (2015) Advancement towards a mechanism for force enhancement. Alberta Nano Research Symposium, Banff AB, Canada, May 28-31. Poster Presentation.
236. Powers KL, Nishkawa K, Herzog W (2015) Towards an understanding of the mechanisms underlying force enhancement. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
237. Riek P, MacDonald G, Herzog W (2015) Metabolic effects of diet induced obesity. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Poster Presentation.
238. Rios JL, Tang C, Herzog W (2015) Individuals with knee osteoarthritis use different muscle activation patterns than healthy subjects during maximal isometric knee extensions. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
239. Rios JL, Boldt KR, Seerattan R, Herzog W (2015) Does high mileage running cause knee osteoarthritis in rats? 16th Annual Alberta Biomedical Engineering Graduate Conference, Banff, AB, Nov 6-8. Podium Presentation
240. Seiberl W, Power GA, Herzog W, Hahn D. Residual force enhancement contributes to increased performance in fast stretch-shortening cycles of human skeletal muscles. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
241. Seiberl W, Power GA, Herzog W, Hahn D (2015) Der Dehnungs-Verkürzungs-Zyklus: alte Mechanismen neu aktiviert. Tagung der DVS Sektion Biomechanik: Active Health: Bewegung ist gesund, March 26-28, Berlin, Germany. Podium Presentation.
242. Smith IC, Herzog W (2015) The effects of titin degradation on passive stiffness properties of skinned rabbit psoas fibers during osmotic compression. 59th Annual Meeting of the Biophysical Society, Baltimore, MD, Feb 7-11. Poster Presentation.
243. Smith IC, Power GA, Fortuna R, Herzog W (2015) Shortening-induced force depression in human adductor pollicis during fatigue. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Poster Presentation.
244. Waters-Banker C, Sawatzky A, Jinha A, Leonard T, Herzog W (2015) Characterization of functional changes in the aponeuroses of the rabbit medial gastrocnemius during contraction in-situ. 25th Congress of the International Society of Biomechanics, Glasgow, UK, July 12-16. Podium Presentation.
245. Zhang T, Fortuna R, Herzog W (2015) Distal and proximal fascicle length changes in active and passive human gastrocnemius muscle. 16th Annual Alberta Biomedical Engineering Conference, Banff, AB, Nov 6-8. Podium Presentation.
246. Abughazaleh N, Abusara Z, Krawetz R, Herzog W (2014) The influence of maximal and submaximal cyclic concentric and eccentric exercise. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
247. Abusara Z, Herzog W (2014) Cartilage biomechanics: what really happens inside a joint? 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
248. Al-Saffar Y, Murphy B, Herzog W (2014) Deformation patterns of cracked articular cartilage under compression. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
249. Boldt K, Joumaa V, Herzog W (2014) Contractile properties of cardiac muscle following increasing doses of chronic exercise training and overtraining in rats: MSc research proposal. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 74. Poster Presentation.
250. Boldt K, Killick A, Herzog W (2014) Metabolic efficiency in four-legged locomotion-respiration coupling. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
251. Collins K, Reimer R, Herzog W (2014) Body fat explains contralateral limb osteoarthritis damage in obese rats. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.

252. Crooks S, Power GA, Herzog W (2014) Muscle fascicle length is reduced in old age owing to shorter sarcomeres and serial sarcomere loss. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 60. Poster Presentation.
253. Dholakia C, Waters-Banker C, Power GA, Herzog W (2014) Is fast food speeding up the aging process? Comparing the skeletal muscle inflammatory environment in diet induced obesity model and aging model. Bachelor of Health Sciences Research Symposium, October 2, Calgary, AB. Poster Presentation.
254. DuVall MM, Jinha A, Leonhard TR, Herzog W (2014) Titin-actin-myosin interaction observed in labeled skeletal myofibrils. 43rd European Muscle Conference, Salzburg, Austria, Sep 10-14. Poster Presentation.
255. DuVall MM, Jinha A, Leonhard TR, Herzog W (2014) Titin-actin-myosin interaction observed in labeled skeletal myofibrils. Molecular Insight into Muscle Function and protein Aggregate Myopathies, Potsdam, Germany, Jun 6. Poster Presentation.
256. Engel M, Leonard TR, Herzog W (2014) Muscle morphology of the spastic muscle. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 83. Poster Presentation.
257. Fick JM, Bartczak A, Herzog W, Korhonen R (2014) Does a partial lateral meniscectomy of the anterior horn create early changes in cell biomechanics? A preliminary study in the mature rabbit knee joint. 60th Annual Meeting of the Orthopaedic Research Society, New Orleans, AL, Mar 15-18. Poster Presentation.
258. Fontana H, Roesler H, Herzog W (2014) In-vivo vastus lateralis force-velocity relationship at the fascicle and muscle tendon unit level. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
259. Fortuna R, Sawatsky A, Vaz MA, Herzog W (2014) Persistent muscle weakness and contractile material loss in a clinically relevant Botulinum toxin type-A (BTX-A) injection pool. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 35. Podium Presentation.
260. Fortuna R, Sawatsky A, Vaz MA, Herzog W (2014) Persistent quadriceps femoris atrophy and weakness six months following a single botulinum toxin type-A injection in a rabbit model. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
261. Han S-K, Turunen S, Madden R, Korhonen R, Herzog W (2014) In situ pericellular deformations during mechanical compression of cartilage at 4 weeks following ACL transection. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
262. Herzog JA, Leonard TR, Jinha A, Herzog W (2014) Titin visco-elasticity modulated by limiting Ig domain unfolding/refolding. Biophysical Society Meeting, San Francisco, USA, Feb 15-19. Poster Presentation.
263. Herzog J, Leonard TR, Jinha A, Herzog W (2014) Titin visco-elastic properties differ between isolated protein and in situ sarcomere preparations. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
264. Herzog J, Leonard TR, Jinha A, Herzog W (2014) Is skeletal muscle titin an activable molecular spring? The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 45. Podium Presentation.
265. Herzog W (2014) The distribution problem in biomechanics and movement control. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
266. Herzog W (2014) A new model of muscle contraction. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
267. Herzog W, Symons B (2014) The biomechanics of cervical spinal manipulation: risk of stroke? 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
268. Hisey B, Herzog W (2014) Hierarchical difference in active and passive force production at long lengths in skeletal muscls. CSCI-CITAC Annual Scientific Meeting, November 24-26, Toronto, ON. Poster Presentation.
269. Hisey B, Herzog W (2014) The effect of passive properties on skeletal muscle failure. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.

270. Johnston KR, Jinha A, Herzog W (2015) The role of sarcomere length non-uniformities in residual force enhancement. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 85. Poster Presentation.
271. Johnston K, Jinha A, Herzog W (2014) An examination of sarcomere length non-uniformities in actively stretched muscle myofibrils. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
272. Jones AA, Power GA, Herzog W (2014) History dependence of EMG: implications for isometric steady-state EMG parameters following a lengthening or shortening contraction. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 40. Podium Presentation.
273. Jones AA, Power GA, Herzog W (2014) History dependence of EMG: does a prior shortening or lengthening contraction influence steady-state isometric EMG parameters? Proceedings of the Exercise Physiologists of Western Canada Conference, Kelowna, BC, July 16-18. Podium Presentation.
274. Joumaa V, Herzog W (2014) Changes in calcium sensitivity after active stretch: role of titin and lattice spacing. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
275. Kaiser K, Leonard TR, Logan K, Orlik R, El-Hawary J, Howard J, Herzog W (2014) Increased sarcomere length is associated with decreased range of motion in Cerebral Palsy. 7th World Congress of Biomechanics. Podium Presentation.
276. Killick A, Herzog W (2014) Metabolic and mechanical properties of the skate skiing techniques. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
277. Kuznetsova S, Villemure I, Abusara Z, Moo E, Al-Saffar Y, Herzog W (2014) In situ chondrocyte mechanics following static and dynamic compressive stresses. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 75. Poster Presentation.
278. Leonard TR, Kaiser K, Herzog J, Logan K, Orlik R, El-Hawary J, Howard J, Herzog W (2014) Passive forces in single myofibrils from children with Cerebral Palsy. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
279. Makela J, Herzog W, Korhonen R (2014) Collagen content is increased in lapine femoral condyle cartilage four weeks after anterior cruciate ligament transection. 60th Annual Meeting of the Orthopaedic Research Society, New Orleans. Poster Presentation.
280. Moo E, Han S-K, Federico S, Sibole S, Jinha A, Osman NAA, Pinguan-Murphy B, Herzog W (2014) Extracellular matrix integrity affects the mechanical behavior of in-situ chondrocytes under compression. 7th World Congress of Biomechanics, Boston, MA, July 7-11. Poster Presentation.
281. Power GA, Joumaa V, Hisey B, Caicedo A, Stutz J, Herzog W (2014) The effect of MHC isoform expression on the history-dependence of force production. 43rd European Muscle Conference, Salzburg, Austria, September 10-14. Poster Presentation.
282. Power GA, Joumaa V, Hisey B, Herzog W (2014) History-dependence of force production: The effect of MHC isoform expression on transient and steady-state aspects. Canadian Society for Exercise Physiology, St. John's, NL, October 22-25. Podium Presentation.
283. Power GA, Makrakos DP, Stevens DE, Herzog J, Rice CL, Vandervoort AA (2014) Shortening induced torque depression in old age: implications for power loss in the elderly? 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
284. Power GA, Minozzo FC, Filion ME, Morais JA, Aubertin-Leheudre M, Herzog W, Hepple RT, Rassier D, Taivassalo T (2014) Single fiber rate of force re-development in older world class master's athletes. Proceedings of the Exercise Physiologists of Western Canada Conference, Kelowna, BC, July 16-18. Podium Presentation.
285. Powers KL, Jinha A, Leonard TR, Herzog W (2014) An enhanced role for titin in actively stretched skeletal muscle. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Podium Presentation.
286. Powers KL, Schappacher-Tilp G, Jinha A, Leonard TR, Herzog W (2014) Force enhancement; a titin achievement in skeletal muscle. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 21. Podium Presentation.

287. Sibole S, Herzog W (2014) How important is the smooth transition of pericellular matrix properties to the chondrocyte microenvironment? A multiscale finite element study of healthy and osteoarthritic cases. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
288. Sibole S, Jinha A, Federico S, Herzog W (2014) Getting more from image data: pyCellAnalyst, a 3-D image reconstruction and deformation analysis tool. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 50. Podium Presentation.
289. Wang V, Kaiser K, Herzog W (2014) Embryonic myosin heavy chain expression in skeletal muscle as a marker of recovery after electrical stimulation damage. The 15th Annual Alberta Biomedical Engineering Conference, October 24-26, Banff, AB pg(s) 94. Poster Presentation.
290. Wu JZ, Herzog W, Federico S (2014) Finite Element implementation of a model for finite deformable, biphasic biological tissues with transversely isotropic statistically distributed fibers. 7th World Congress of Biomechanics, Boston, MA, July 6-11. Poster Presentation.
291. Abughazaleh N, Abusara Z, Roman K, Herzog W (2013) Changes in synovial fluid proteins and prg4 following intense muscular loading of the knee. American Society of Biomechanics Conference, Omaha, NE, September 4-7. Podium Presentation.
292. Abusara Z, Krawetz R, Steele B, DuVall M, Schmidt TA, Herzog W (2013) Changes in protein concentration in murine knee joints with muscular contraction. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9, pg(s) 133. Podium Presentation.
293. Arslan Y, Kaya M, Jinha A, Herzog W (2013) Static optimization solution to the force sharing problem. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 104. Podium Presentation.
294. Cantergi D, Loss J.F., Jinha A, Brodt G.A., Herzog W (2013) Variability of muscle contributions to leg extensions performed on the reformer apparatus. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 159. Poster Presentation.
295. Collins K, Reimer R, Herzog W (2013) Acute kinematic and kinetic changes in rats after diet induced obesity and ACL-X. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 49. Podium Presentation.
296. Crooks S, Nair A, Sawatsky A, Leonard TR, Herzog W (2013) Serial sarcomere loss in rabbit triceps surae muscles following a five-hour electrical stimulation protocol. 14th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 25-27. Poster Presentation.
297. Cunha SA, Fortuna R, Jinha A, Herzog W (2013) Mathematical model to optimize goalkeepers' jumping. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9, 2013 pg(s) 124. Podium Presentation.
298. DuVall M, Jinha A, Leonard TR, Herzog W (2013) Comparative stress production of native and quantum dot labeled rabbit psoas muscle myofibrils. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9, 2013 pg(s) 134. Podium Presentation.
299. Federico S, Grillo A, Herzog W (2013) Transversely isotropic composites with statistically oriented inclusions. SES 50th Annual Technical Meeting and ASME-AMD Annual Summer Meeting, Providence, RI, July 28-31. Podium Presentation.
300. Fontana H, Herzog W, Roesler H (2013) Ground reaction forces during stationary running in water and on land: effect of immersion, movement cadence and body density. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 145. Poster Presentation.
301. Han S-K, Madden R, Herzog W (2013) Pericellular matrix deformations in situ under mechanical compression. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 132. Podium Presentation.
302. Herzog J, Leonard TR, Jinha A, Herzog W (2013) Modulation of titin elasticity in working muscle to minimize energy loss in passive stretch-shortening cycles. American Society of Biomechanics Conference, Omaha, Nebraska September 4-7 2013.

303. Herzog W, Killick A (2013) Functional muscle mechanics in sports: why we should care. International Society of Biomechanics in Sports, Taipei, Taiwan. July 7-11. Podium Presentation.
304. Hisey B, Herzog W (2013) Differences between active and passive failure in whole skeletal muscle. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 138. Podium Presentation.
305. Horisberger M, Fortuna R, Valderrabano V, Herzog W (2013) Long-term cyclic muscle induced submaximal joint loading leads to cartilage degeneration in an in-vivo model. Proceedings of the 2013 Orthopaedic Research Society Annual Meeting, San Antonio, TX, January 26-29 pg(s) 85. Poster Presentation.
306. Killick A, Herzog W (2013) Impulse contribution from each limb in skate cross-country skiing. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9, 2013 pg(s) 152. Poster Presentation.
307. Leonard TR, Herzog J, Jinha A, Herzog W (2013) Myofibril (and titin) kinetics during passive stretch-shortening cycles. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 133. Podium Presentation.
308. Madden R, Herzog W (2013) The effect of loading magnitude on calcium signaling in articular cartilage chondrocytes. Proceedings of the 2013 Orthopaedic Research Society Annual Meeting, San Antonio, TX, January 26-29 pg(s) 128. Poster Presentation.
309. Madden R, Herzog W (2013) The effect of loading magnitude on chondrocyte calcium signaling in situ. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 137. Podium Presentation.
310. Makela J, Rezaeian Z, Mikkonen S, Madden R, Han S-K, Jurvelin JS, Herzog W, Korhonen R (2013) Site-dependent changes in collagen orientation and elastic moduli in lapine articular cartilage at 4 weeks after anterior cruciate ligament transection. Proceedings of the 2013 Orthopaedic Research Society Annual Meeting, San Antonio, TX, January 26-29 pg(s) 126. Poster Presentation.
311. Moo E, Amrein M, DuVall M, Abu Osman N.A, Pingguan-Murphy B, Herzog W (2013) Strain rate dependence of cell membrane reservoir is key to impact-induced chondrocyte death. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 136. Podium Presentation.
312. Moo E, Amrein W, Osman NAA, Murphy B, Herzog W (2013) Chondrocyte membrane mechanics at different loading rates. Proceedings of the 2013 Orthopaedic Research Society Annual Meeting, San Antonio, TX, January 26-29 pg(s) 88. Poster Presentation.
313. Moo E, Han S-K, Jinha A, Abu Osman N.A, Pingguan-Murphy B, Herzog W (2013) Structural integrity of extracellular matrix influences the mechanical behavior of insitu chondrocytes. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 131. Podium Presentation.
314. Moo E, Han S-K, Jinha A, Abusara Z, Federico S, Osman NAA, Murphy B, Herzog W (2013) Mechanics of in-situ chondrocytes near cartilage lesions: experimental and finite element study. Proceedings of the 2013 Orthopaedic Research Society Annual Meeting, San Antonio, TX, January 26-29 pg(s) 89. Poster Presentation.
315. Powers KL, Herzog W (2013) Active force beyond filament overlap: a titin achievement in skeletal muscle. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 135. Podium Presentation.
316. Tang C, Wuest S, Robert J, Herzog W (2013) A prospective study evaluating the effects of manual therapy on the treatment of anterior knee pain. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 64.
317. Von Kossel M, Herzog W (2013) Vastus lateralis fascicle length isometricity at different knee extensor torques and angles. XXIV Congress of the International Society of Biomechanics, Natal, Brazil, August 4-9 pg(s) 209. Poster Presentation.
318. Abusara Z, Herzog W (2012) Cells within joints release proteins into the synovial fluid during controlled muscular exercise. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
319. Abusara Z, Steele B, Schmidt TA, Herzog W (2012) Muscular loading of joints and its effect on synovial fluid composition. Proceedings of the 58th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 4-7. Poster Presentation.

320. Arslan Y, Kaya M, Herzog W (2012) Evaluation of muscle force predictions using optimization theory. International Conference on Mathematical Modeling in Physical Sciences, September 3-7, Budapest, Hungary 410. Podium Presentation.
321. Collins K, Reimer R, Herzog W (2012) Does metabolically induced obesity affect the severity of Knee Osteoarthritis? 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21. Poster Presentation.
322. Crooks S, Killick A, Herzog W (2012) Oxygen uptake in one and two skate cross country skiing at increasing grades. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
323. DuVall M, Herzog W (2012) Proposed investigation into titin's elastic behavior during active stretch (muscle). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
324. DuVall M, Jinha A, Leonard TR, Herzog W (2012) Z-line elongation observed in titin labeled myofibrils. Proceedings of the Biophysical Society 56th Annual Meeting, San Diego, CA, February 25-29. Poster Presentation.
325. Fortuna R, Herzog W (2012) Do skeletal muscle properties recover following botulinum toxin type A treatment? ISEK 2012 Biennial Congress, Brisbane, Australia, July 19-21. Poster Presentation.
326. Fortuna R, Horisberger M, Herzog W (2012) Do skeletal muscle properties recover following repeat botulinum toxin type A injections? AACPCM 2012 Annual Meeting, Toronto, ON, September 12-15. Poster Presentation.
327. Fortuna R, Horisberger M, Vaz MA, Herzog W (2012) Do skeletal muscle properties recover following botulinum toxin type-A injections? 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Podium Presentation.
328. Fortuna R, Horisberger M, Vaz MA, Herzog W (2012) Do skeletal muscle properties recover following repeat botulinum toxin type-A injections? 2012 American Society of Biomechanics Annual Meeting, Gainesville, FL, August 15-18. Poster Presentation.
329. Fortuna R, Horisberger M, Vaz MA, Herzog W (2012) Do skeletal muscle properties recover following botulinum toxin type-A treatment? (rehabilitation). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
330. Han S-K, Madden R, Herzog W (2012) The viscoelastic recovery of chondrocytes in situ after static and dynamic compressions. Proceedings of the 58th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 4-7. Podium Presentation.
331. Herzog J, Leonard TR, Jinha A, Herzog W (2012) Hysteresis and efficiency in skeletal muscle myofibrils. Proceedings of the Biophysical Society 56th Annual Meeting, San Diego, CA, February 25-29. Poster Presentation.
332. Herzog J, Leonard TR, Jinha A, Herzog W (2012) Can we study titin properties in single myofibrils? 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
333. Herzog W, Joumaa V (2012) Energy cost of skeletal muscle force production is reduced in the force enhanced state (muscle). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
334. Herzog W, Leonard TR, DuVall M, Herzog J (2012) Force enhancement in skeletal muscles: a role for titin? Proceedings of the 8th European Solid Mechanics Conference, July 9-13, Graz, Austria. Podium Presentation.
335. Herzog W, Panchangam A, DuVall M, Leonard TR (2012) Skeletal muscle research across structural levels. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
336. Joumaa V, Herzog W (2012) Force enhancement: an evolutionary strategy to reduce the metabolic cost of muscle contraction? Proceedings of the 2012 American Society of Biomechanics, Aug 14-19, Gainesville, FL. Podium Presentation.
337. Killick A, Herzog W (2012) Metabolically optimal gait transitions in cross-country skate skiing. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.

338. Killick A, Samsom M, Herzog W (2012) Ratio of propulsive to total impulses as an indicator of poling efficiency in skate cross-country skiing. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
339. Leonard TR, Herzog W (2012) Skeletal muscle myofibril force production during lengthening. 8th European Solid Mechanics Conference, Graz, Austria, July 9-13 pg(s) 103. Podium Presentation.
340. Madden R, Han S-K, Herzog W (2012) Chondrocyte deformation under extreme tissue strains. Proceedings of the Biophysical Society 56th Annual Meeting, San Diego, CA, February 25-29. Poster Presentation.
341. Madden R, Herzog W (2012) Effect of loading magnitude on calcium signaling in articular cartilage chondrocytes. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
342. Madden R, Herzog W (2012) Chondrocyte deformation under extreme tissue strain (orthopaedic). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
343. Mohammadi H, Herzog W (2012) A nonlinear finite element model for the evaluation of instabilities in atherosclerotic plaques (modeling). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
344. Mohammadi H, Herzog W (2012) A novel high-order element for the analysis of heart valve leaflet tissue mechanics. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
345. Moo E, Amrein W, Osman NAA, Azuan N, Murphy B, Herzog W (2012) Chondrocyte membrane mechanics at different loading rates. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
346. Moo E, Federico S, Han S-K, Osman NAA, Pinguan-Murphy B, Herzog W (2012) Articular chondrocyte mechanics at different loading rates (modeling). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
347. Panchangam A, Herzog W (2012) Popped sarcomeres regain filament overlap in a stretch-shortening cycle. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
348. Powers KL, Monroy A, Dillingham E, Herzog W, Nishikawa K (2012) The contributions of titin and collagen to passive tension in muscular dystrophy with myositis. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
349. Rautiainen J, Nissi MJ, Liimatainen O, Herzog W, Korhonen R, Nieminen MT (2012) Multiparametric MRI assessment of early osteoarthritis in a rabbit model of anterior cruciate ligament transection. Proceeding of the International Society for Magnetic Resonance in Medicine 2012, May 5-11, Melbourne, Australia. Poster Presentation.
350. Sawatsky A, Herzog W (2012) The effect of knee extension force on patellofemoral tracking (rehabilitation). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
351. Sawatsky A, Herzog W (2012) The effect of knee extension force on patellofemoral tracking. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
352. Schappacher-Tiip G, Leonard TR, Desch G, Herzog W (2012) A structural model of force generation in single myofibrils aimed at explaining force regulation in the absence of cross-bridge theory. 8th European Solid Mechanics Conference, Graz, Austria, July 9-13 pg(s) 103. Podium Presentation.
353. Tang C, Herzog W, Wuest S (2012) A prospective study evaluating the effects of mrt on the treatment of patellofemoral pain syndrome (rehabilitation). 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Poster Presentation.
354. Tang C, Wuest S, Robert R, Herzog W (2012) A prospective study evaluating the effects of MRT on the treatment of patellofemoral pain syndrome. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
355. Turunen S, Han S-K, Herzog W, Korhonen R (2012) Changes in collagen orientation and proteoglycan content four weeks after anterior cruciate ligament transection modulate cell morphology in mechanically loaded rabbit

- cartilage. Proceedings of the 2012 Annual Meeting of the Orthopaedic Research Society, San Francisco, California, Feb 4-7, 2012. Poster Presentation.
356. Turunen S, Korhonen R, Han S-K, Herzog W (2012) Cell deformation behavior in rabbit model of early OA. 20th Anniversary Meeting of the European Orthopaedic Research Society, September 26-28, 2012, Amsterdam, The Netherlands. Poster Presentation.
357. Wang V, Yamamoto M, Leonard TR, Herzog W (2012) Effect of intermittent passive stretching on serial sarcomere loss caused by electrical stimulation in rabbit triceps surae muscles. 13th Annual Alberta Biomedical Engineering Conference, Banff, AB, Oct 19-21. Poster Presentation.
358. Yamamoto M, Leonard TR, Herzog W (2012) Rapid serial sarcomere loss caused by electrical stimulation in rabbit triceps surae muscles. 2012 Canadian Society for Biomechanics, June 6-9, Vancouver, BC. Podium Presentation.
359. Abusara Z, Herzog W (2011) Dynamic chondrocyte behavior during in vivo muscle loading in the intact mouse knee joint. Proceedings of the XXIIIrd International Society of Biomechanics, Brussels, July 1 - 8 pg(s) 13. Poster Presentation.
360. Abusara Z, Herzog W (2011) In vivo dynamic chondrocyte mechanics for physiological joint loading conditions. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 57. Podium Presentation.
361. Abusara Z, Herzog W (2011) In vivo chondrocyte mechanics in the intact mouse knee joint. 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 10-13, 2011.
362. Fortuna R, Horisberger M, van der Marel R, Herzog W (2011) The effects of electrical stimulation on muscle injected with botulinum toxin type-A (Botox). Proceedings of the 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 10-13. Poster Presentation.
363. Fortuna R, Horisberger M, van der Marel R, Herzog W (2011) Effects of electrical stimulation on muscles injected with botulinum toxin type A (botox). Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Podium Presentation.
364. Fortuna R, van der Marel R, Horisberger M, Herzog W (2011) Effects of electrical stimulation on muscles injected with botulinum toxin type A (Botox). Proceedings of the XXIIIrd International Society of Biomechanics, Brussels, July 1 - 8 pg(s) 86. Podium Presentation.
365. Han S-K, Madden R, Abusara Z, Herzog W (2011) The viscoelasticity of chondrocytes in situ. Proceedings of the 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 10-13. Poster Presentation.
366. Han S-K, Wouters W, Herzog W (2011) Temperature and transient load effect on compression induced calcium signaling in chondrocytes in situ. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 69. Poster Presentation.
367. Herzog W (2011) Understanding muscle properties in sports performance optimization (Keynote). Proceedings of the 29th Conference of the International Society of Biomechanics in Sports, Porto, Portugal pg(s) 81.
368. Horisberger M, Fortuna R, Leonard TR, Valderrabano V, Herzog W (2011) The influence of cyclic concentric and eccentric submaximal muscle loading on cell viability in the rabbit knee joint. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 77. Poster Presentation.
369. Horisberger M, Fortuna R, Leonard TR, Valderrabano V, Herzog W (2011) The influence of cyclic concentric and eccentric submaximal muscle loading on cell viability in the rabbit knee joint. Proceedings of the XXIIIrd International Society of Biomechanics, Brussels, July 1 - 8 pg(s) 162. Poster Presentation.
370. Horisberger M, Fortuna R, Valderrabano V, Herzog W (2011) Long-term cyclic submaximal joint loading by in vivo muscle stimulation leads to chondrocyte death and accelerates cartilage degeneration in a rabbit model. Proceedings of the XXIIIrd International Society of Biomechanics, Brussels, July 1 - 8 pg(s) 121. Podium Presentation.

371. Killick A, Crooks S, Lenes H, Herzog W (2011) Contributions of the upper body to a unique gait transition in cross-country skiing. Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Podium Presentation.
372. Leonard TR, Herzog W (2011) Sarcomere behavior in myofibrils during local deactivation. Proceedings of the 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 10-13. Podium Presentation.
373. Leumann A, Fortuna R, Longino D, Leonard TR, Hart DA, Valderrabano V, Herzog W (2011) Altered molecular metabolism of knee joint issues in a botox induced quadriceps muscle weakness model in the rabbit. British Journal of Sports Medicine, World Conference on Prevention of Injury and Illness in Sport, April 7-9, Monaco 45 (4):359-360.
374. Madden R, Herzog W (2011) Chondrocyte deformations under extreme tissue strains. Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Podium Presentation.
375. Makitalo J, Saarakkala S, Rieppo L, Han S-K, Herzog W, Korhonen R (2011) Can collagen fibrillation or proteoglycan depletion of cartilage explain changed deformation behavior of chondrocytes 9 weeks after anterior cruciate ligament transaction? Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 73. Poster Presentation.
376. Matthiasdottir S, Hahn M, Yaraskavitch M, Herzog W (2011) Muscle and fascicle excursions in children with cerebral palsy. Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Podium Presentation.
377. Matthiasdottir S, Hahn M, Yaraskavitch M, Herzog W (2011) Muscle and fascicle excursions in children with cerebral palsy. Proceedings of the 35th Annual Meeting of the American Society of Biomechanics, Long Beach, CA, August 10-13. Podium Presentation.
378. Moo E, Herzog W, Han S-K, Abu Osman N.A, Pinguan-Murphy B, Federico S (2011) In-situ chondrocyte mechanics at different loading rates: a finite element study. Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Podium Presentation.
379. Sawatsky A, Leonard TR, Herzog W (2011) Does knee extensor muscle imbalance cause changes in patellar tracking? Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Poster Presentation.
380. Turunen S, Han S-K, Herzog W, Korhonen R (2011) Chondrocyte volume and morphology following mechanical loading of articular cartilage are altered four weeks after anterior cruciate ligament transaction in rabbits. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 78. Poster Presentation.
381. Turunen S, Lammi M, Saarakkala S, Han S-K, Herzog W, Tanska P, Korhonen R (2011) Hypotonic challenge alters cell volumes differently in enzymatically treated and intact articular cartilage. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 79. Poster Presentation.
382. Yamamoto M, Herzog W, Panchangam A (2011) A-band shortening in isolated myofibrils of rabbit psoas muscles. Proceedings of the 55th Biophysical Society Annual Meeting, Baltimore, MD, March 5-9 pg(s) 60. Podium Presentation.
383. Yamamoto M, Leonard TR, Herzog W (2011) Rapid serial sarcomere loss caused by electrical stimulation in rabbit triceps surae muscles. Proceedings of the 12th Annual Alberta Biomedical Engineering Conference, Banff, AB, Canada, October 21-23. Poster Presentation.
384. Youssef A, Longino D, Leonard TR, Seerattan R, Herzog W (2011) Effects of isolated knee extensor weakness vs. multi-group hind limb extensor weakness on knee articular cartilage in lapine model of osteoarthritis. Proceedings of the 2011 Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 73. Poster Presentation.
385. Youssef A, Longino D, Szabo E, Leonard TR, Seerattan R, Herzog W (2011) Characterization of cartilage degeneration in different models of osteoarthritis in the New Zealand white rabbit. Proceedings of the 2011

- Annual Meeting of the Orthopaedic Research Society, Long Beach, California, January 13-16, 2011 pg(s) 73. Poster Presentation.
386. Abusara Z, Herzog W (2010) The biomechanics of articular cartilage chondrocytes in vivo. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 198. Podium Presentation.
387. Abusara Z, Herzog W (2010) Chondrocyte mechanics in knees loaded through muscular contraction. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31. Podium Presentation.
388. Abusara Z, Leumann A, Seerattan R, Herzog W (2010) In vivo chondrocyte mechanics. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24 pg(s) 173-#3878. Poster Presentation.
389. DuVall M, Amrein W, Gifford J, Herzog W (2010) Novel properties of titin immunoglobulin domain from human cardiac muscle. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 166. Podium Presentation.
390. DuVall MM, Amrein M, Gifford J, Herzog W. (2010) Does calcium interact with titin's immunoglobulin domain in cardiac muscle? Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24. Poster Presentation.
391. Fortuna R, Horisberger M, Leonard TR, Valderrabano V, Herzog W (2010) The influence of cyclic concentric and eccentric submaximal muscle loading on cell viability in the rabbit knee joint. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Podium Presentation.
392. Fortuna R, Vaz MA, Herzog W (2010) Morphological changes in contractile properties of muscles subjected to repeat injections of botulinum toxin Type A (botox). IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31. Podium Presentation.
393. Fortuna R, Vaz MA, Youssef A, Longino D, Herzog W (2010) Morphological changes in contractile properties of muscles subjected to repeat injections of botulinum toxin Type A (botox). Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 168. Podium Presentation.
394. Hahn M, Yaraskavitch M, Herzog W (2010) Muscle and fascicle excursions in children with cerebral palsy. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 97. Podium Presentation.
395. Han S-K, Seerattan R, Herzog W (2010) Real time in situ deformation of chondrocytes in an early OA model of lapine retropatellar cartilage. 56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March 6-9 pg(s) 790. Poster Presentation.
396. Han S-K, Wouters W, Herzog W (2010) Ca²⁺ signaling of lapine chondrocytes in situ under mechanical loading. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010. Podium Presentation.
397. Herzog W (2010) The role of muscles in sport performance: Experimental and theoretical considerations in bicycling. Abstracts of the XVII Congress of the International Society of Electrophysiology and Kinesiology, Aalborg, Denmark, June 16-19. Podium Presentation.
398. Jinha A, Leonard TR, Herzog W (2010) Active force augmentation for physiologically relevant stretches in myofibrils and mechanically isolated sarcomeres. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24 pg(s) 89-#1795. Poster Presentation.
399. Killick A, Herzog W (2010) Metabolically optimal gait transitions in cross-country skate skiing. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Poster Presentation.
400. Korhonen R, Julkunen P, Turunen S, Saarakkala S, Han S-K, Herzog W (2010) Deformation behavior of cells in articular cartilage. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010. Podium Presentation.
401. Leonard TR, Herzog W (2010) Residual force enhancement following stretch occurs in a single sarcomere. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 165. Podium Presentation.

402. Leonard TR, Herzog W (2010) Passive force augmentation in actively stretched myofibrils and sarcomeres. Biophysical Journal Book of Abstracts of the 54th Annual Meeting of the Biophysical Society, San Francisco, CA, February 20-24 98 (3):345a-346a.
403. Leumann A, Longino D, Fortuna R, Leonard TR, Valderrabano V, Herzog W (2010) Altered cell metabolism in tissues of the knee joint in a rabbit model of quadriceps muscle weakness. 56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March 6-9 pg(s) 889. Poster Presentation.
404. McGowan CP, Neptune RR, Herzog W (2010) A phenomenological muscle model to assess history dependent effects in human movement. 34th Annual Meeting of the American Society of Biomechanics, Providence, RI, August 18-21. Podium Presentation.
405. McKenzie A, Herzog W (2010) Passive stress in myofibrils from cardiomyopathic hamsters. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24 pg(s) 133-#2850. Poster Presentation.
406. McKenzie A, Panchangam A, Herzog W (2010) Passive stresses generated by myofibrils from dilated cardiomyopathic hamsters. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 59. Poster Presentation.
407. Moo E, Han S-K, Federico S, Herzog W (2010) Computational modeling of chondrocyte mechanics at different loading rates. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Podium Presentation.
408. Panchangam A, Herzog W (2010) Stretch-induced muscle damage: Insights from isolated myofibrils. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31.
409. Panchangam A, Herzog W (2010) Sarcomere popping limits force loss in stretch-induced injury. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 167. Podium Presentation.
410. Panchangam A, Herzog W (2010) Role of sarcomere disruption in stretch-induced force loss of myofibrils. Biophysical Society 54th Annual Meeting, San Francisco, CA, February 20-24 pg(s) 89-#1794. Poster Presentation.
411. Schappacher-Tilp G, Binding PA, Braverman E, Herzog W (2010) Task dependent cost functions in a one degree of freedom model for the prediction of force sharing among synergistic muscles. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31.
412. Schappacher-Tilp G, Jinha A, Herzog W (2010) A stochastic model of the three-bead laser trap setup to study actin-myosin interaction. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31.
413. Tang C, Symons B, Wuest S, Herzog W (2010) Biomechanics of the vertebral artery during neck manipulative treatments. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Podium Presentation.
414. Tang C, Symons B, Wuest S, Herzog W (2010) Biomechanics of vertebral artery during neck manipulative treatments. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 9. Podium Presentation.
415. Tilp M, Steib S, Herzog W (2010) Length changes of human tibialis anterior aponeurosis during active and passive contractions. IFMBE Proceedings, 6th World Congress on Biomechanics, Singapore, August 1-6, 2010 31.
416. van der Marel R, Fortuna R, Herzog W (2010) Electrical stimulation training does not prevent strength loss in muscles treated with botulinum toxin. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Podium Presentation.
417. Yamamoto M, Panchangam A, Herzog W (2010) A-band shortening in isolated myofibrils of rabbit psoas muscles. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Poster Presentation.

418. Youssef A, Leonard TR, Herzog W (2010) Effects of hind limb muscle weakness on tibial cartilage degeneration in rabbits. Proceedings of the 16th Biannual Conference of the Canadian Society for Biomechanics, Kingston, ON, June 9-12 pg(s) 143. Poster Presentation.
419. Youssef A, Longino D, Seerattan R, Leonard TR, Herzog W (2010) Exercising weak muscles causes selective degeneration of knee cartilage. 56th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March 6-9 pg(s) 341. Poster Presentation.
420. Youssef A, Longino D, Szabo E, Leonard TR, Seerattan R, Herzog W (2010) Cartilage degeneration in different models of osteoarthritis in the New Zealand rabbit. Proceedings of the 11th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 22-24. Poster Presentation.
421. Joumaa V, Herzog W (2009) New insights into force depression in skeletal muscle. Biophysical Society 53rd Annual Meeting, Boston, MA, February 28-March 4 pg(s) L233. Poster Presentation.
422. Abusara Z, Seerattan R, Thompson R, Herzog W (2009) Chondrocyte deformation in the live mouse knee. Biophysical Society 53rd Annual Meeting, Boston, MA, February 28-March 4 pg(s) 154. Poster Presentation.
423. Austin N, Nilwik R, Herzog W (2009) In vivo skeletal muscle fibre function during cycling. Proceeding of the 2009 Workshop on Multi-scale Muscle Mechanics, Wood's Hole, MA, September 18-21 pg(s) 27.
424. Austin N, Nilwik R, Herzog W (2009) In vivo skeletal muscle fibre function during cycling. Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25 pg(s) 29. Podium Presentation.
425. DuVall M, Amrein W, Gifford J, Herzog W (2009) Calcium interaction with titin immunoglobulin domain in cardiac muscle. Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25.
426. DuVall M, Herzog W (2009) The role of calcium interactions with titin's immunoglobulin domain in cardiac muscle. Proceeding of the 2009 Workshop on Multi-scale Muscle Mechanics, Wood's Hole, MA, September 18-21 pg(s) 1. Poster Presentation.
427. DuVall M, Herzog W (2009) The role of calcium interaction with titin immunoglobulin domain in cardiac muscle. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29.
428. Fletcher J, MacIntosh BR, Austin N, Herzog W (2009) Inter-tester reliability of the force-length relationship in vivo human vastus lateralis. Proceeding of the 2009 Workshop on Multi-scale Muscle Mechanics, Wood's Hole, MA, September 18-21 pg(s) 41.
429. Fortuna R, Vaz MA, Herzog W (2009) Catch-like property in human adductor pollicis muscle. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29.
430. Fortuna R, Vaz MA, Longino D, Youssef A, Herzog W (2009) Morphological changes in contractile properties of muscles subjected to repeat injections of botulinum toxin (botox). Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25 pg(s) 3. Podium Presentation.
431. Han S-K, Seerattan R, Herzog W (2009) Mechanical loading of in situ chondrocytes in a lapine retropatellar cartilage after anterior cruciate ligament transection. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29. Podium Presentation.
432. Herzog W (2009) Respect thy elders: or lessons learnt from the literature. Proceedings of the XXII Congress of the International Society of Biomechanics. ISB, Cape Town, South Africa pg(s) CD.
433. Hisey B, Herzog W (2009) Thermal dependence of isometric muscle fibre force and stiffness in rana pipiens. Proceeding of the 2009 Workshop on Multi-scale Muscle Mechanics, Wood's Hole, MA, September 18-21 pg(s) 2.
434. Hisey B, Herzog W (2009) Thermal dependence of isometric force and stiffness in single fibres of the frog rana pipiens. Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25. Poster Presentation.
435. Leonard TR, Joumaa V, Herzog W (2009) Active and passive myofibrils lengthened beyond acto-myosin filament overlap produce different forces. Biophysical Society 53rd Annual Meeting, Boston, MA, February 28-March 4 pg(s) 3183. Poster Presentation.

436. Leumann A, Fortuna R, Longino D, Hart DA, Valderrabano V, Herzog W (2009) Altered molecular metabolism of knee joint tissues in a botox induced quadriceps muscle weakness in the rabbit. Annual Meeting of the Swiss Society for Sports Medicine, Interlaken, Switzerland, October 22-23. Poster Presentation.
437. Logan C, Giles E, Herzog W (2009) Investigating Wolff's law: Tribecular response to chronic abnormal strain. Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25. Poster Presentation.
438. McGowan CP, Neptune RR, Herzog W (2009) A phenomenological model of shortening induced force depression during muscle contractions. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29.
439. Panchangam A, Herzog W (2009) Force loss in isolated myofibrils of rabbit psoas following activated stretches. Proceeding of the 2009 Workshop on Multi-scale Muscle Mechanics, Wood's Hole, MA, September 18-21 pg(s) 7.
440. Panchangam A, Herzog W (2009) Loss of isometric tension in myofibrils undergoing activated stretches. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29.
441. Youssef A, Seerattan R, Leonard TR, Herzog W (2009) Effects of hind-limb weakness on knee osteoarthritis in rabbits. Proceedings of the 10th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 23-25 pg(s) 21. Podium Presentation.
442. Youssef A, Seerattan R, Leonard TR, Herzog W (2009) Effects of multiple-group muscle weakness on the retro-patellar cartilage in rabbits. Proceedings of the American Society of Biomechanics Conference, State College, PA, August 26-29.
443. Arslan Y, Schappacher-Tilp G, Jinha A, Herzog W (2008) Prediction of muscle forces using static non-linear optimization technique. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 214-220.
444. Austin N, Keren,TT, Wieland,C C, Herzog W (2008) In vivo skeletal muscle fibre function during cycling. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 422.
445. Austin N, Nilwik R, Herzog W (2008) In vivo skeletal muscle fibre function during cycling. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 31.
446. Bourne D, Matyas JR, Muldrew K, Herzog W (2008) Cartilage cell viability after submaximal and maximal muscle loading with and without impact loading. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 375.
447. Bourne D, Matyas JR, Muldrew K, Herzog W (2008) Cartilage cell viability after ACL transection with and without impact loading. Transactions of the 54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 2-5 pg(s) 725.
448. Federico S, Herzog W (2008) Limits of validity of non-linear fibre-reinforced models for soft tissues. Journal of Biomechanics, Abstracts of the 16th Congress, European Society of Biomechanics, Lucerne, Switzerland, July 6-9 41 (S1):S365.
449. Han S-K, Herzog W (2008) Mechanical loading of in situ chondrocytes in their native environment. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 16. Poster Presentation.
450. Han S-K, Herzog W (2008) Mechanical loading of in situ chondrocytes in their native environment. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 384.
451. Han S-K, Herzog W, Korhonen R (2008) Osmotic loading of in situ chondrocytes in their physiological environment. Transactions of the 54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 2-5 33:324.
452. Herzog W (2008) Muscle and joint biomechanics in the osteoarthritic knee. Proceedings of the 13th International Conference of Biomedical Engineering, Singapore, December 3-6. IFMBE 23:2151-2154.

453. Herzog W (2008) The biomechanics of muscle contraction: or firing biomechanics research. Proceedings of the 4th Kuala Lumpur International Conference on Biomedical Engineering, Kuala Lumpur, Malaysia, June 25-28 pg(s) 3.
454. Hisey B, Herzog W (2008) Interspecies differences in the thermal dependence of isometric muscle force in frogs. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 10. Poster Presentation.
455. Hisey B, Leonard TR, Herzog W (2008) Force enhancement reaches a plateau at critical stretch magnitudes. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 523.
456. Joumaa V, Herzog W (2008) Force depression in single myofibrils and sarcomeres. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 89.
457. Joumaa V, Herzog W (2008) Force depression in single myofibrils. 52nd Annual Meeting of the Biophysical Society, Long Beach, CA, February 1-6 pg(s) 903.
458. Lee E-J, Herzog W (2008) Shortening-induced force depression in primarily caused by cross-bridges in strongly bound states. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 15.
459. Leonard TR, Herzog W (2008) Active and passive skeletal muscle myofibrils fail during stretch at different forces. Journal of Biomechanics, Abstracts of the 16th Congress, European Society of Biomechanics, Lucerne, Switzerland, July 6-9 41 (S1):S346.
460. Leonard TR, Herzog W (2008) Skeletal muscle myofibrils fail at different forces but similar lengths for active and passive stretching. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 250.
461. McKenzie A, Herzog W (2008) An experimental model of dilated cardiomyopathy. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 574. Poster Presentation.
462. McKenzie A, Herzog W (2008) An experimental model of dilated cardiomyopathy. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 8. Poster Presentation.
463. Mehta A, Herzog W (2008) The steps of muscle myosin II. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 189. Poster Presentation.
464. Sawatsky A, Bourne D, Jinha A, Herzog W (2008) Changes in patellofemoral contact pressure due to imbalance of the knee extensors. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 29.
465. Sawatsky A, Bourne D, Jinha A, Herzog W (2008) Changes in patellofemoral contact pressure caused by imbalance of the knee extensor muscles. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 502.
466. Schappacher-Tilp G, Herzog W (2008) Modelling the effect of Brownian motion on the amount of backwards steps in the classical three-beads laser trap setup for actin-myosin interaction. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 42. Poster Presentation.
467. Steib S, Tilp M, Schappacher-Tilp G, Herzog W (2008) Analyse der faserlänge und des fiederungswinkels der muskulatur bei willkürlichen muskelkontraktionen. Proceedings of the Annual Meeting of the Austrian Society for Sports, Vienna, Austria, November 20 12:23-24.
468. Szabo E, Seerattan R, Leonard TR, Herzog W (2008) Strength training of the quadriceps muscles following ACL transection: Effects on strength and joint integrity. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 35.
469. Tilp M, Steib S, Schappacher-Tilp G, Herzog W (2008) Residual force enhancement in maximal voluntary contractions of human dorsi flexors. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 40.
470. Vaz MA, de la Roche C, Leonard TR, Herzog W (2008) The force-length relationship of the cat soleus muscle. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 202.

471. Yaraskavitch M, Herzog W (2008) Changes in passive muscle properties of cerebral palsy patients. Proceedings of the 4th North American Congress on Biomechanics, Ann Arbor, MI, August 5-9 pg(s) 436.
472. Youssef A, Seerattan R, Herzog W (2008) Spontaneous arthritis in rabbit is not aggravated by increase in physical activity. Proceedings of the 9th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 23.
473. Youssef A, Seerattan R, Leonard TR, Herzog W (2008) Muscle weakness causes joint degeneration in rabbits. Journal of Biomechanics, Abstracts of the 16th Congress, European Society of Biomechanics, Lucerne, Switzerland, July 6-9 41 (1):S170.
474. Youssef A, Seerattan R, Leonard TR, Herzog W (2008) Muscle weakness causes joint degeneration in rabbits. Transactions of the 54th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 2-5 pg(s) 54.
475. Adeeb S, Epstein M, Herzog W (2007) Time and stress dependent growth model. Proceedings of the 9th US National Congress on Computational Mechanics, San Francisco, CA, July 22-26 pg(s) 009.
476. Austin N, DiFrancesco L, Herzog W (2007) Damage of arterial tissues when exposed to repeat physiological strains. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 31. Poster Presentation.
477. Bourne D, Muldrew K, Jinha A, Herzog W (2007) Cartilage cell viability after in vivo impact and muscular loading. Proceedings of the 6th Combined Meeting of the Orthopaedic Research Societies, Honolulu, Hawaii, October 20-24 pg(s) 0041. Podium Presentation.
478. Bullimore SR, Saunders T.J., Herzog W, MacIntosh BR (2007) Comparison of three methods for measuring the skeletal muscle force-velocity relationship. Proceedings of the 51st Biophysical Society Annual Meeting, Baltimore, MD, March 3-7 pg(s) 1416-Pos/B471.
479. Epstein M, Adeeb S, Herzog W (2007) Dynamic loading and biological growth. Proceedings of the American Society of Biomechanics Conference, Stanford University, CA, August 22-25 pg(s) CD187.
480. Federico S, Grillo A, Giaquinta G, Herzog W (2007) On the convexity of Fung's potential. Journal of Biomechanics, Proceedings of the XXI Congress of the International Society of Biomechanics, Taipei, Taiwan, July 1-5 pg(s) S738-265. Poster Presentation.
481. Federico S, Herzog W (2007) The effect of collagen fibres on permeability of articular cartilage. Proceedings of the American Society of Biomechanics Conference, Stanford University, CA, August 22-25 pg(s) CD149.
482. Han S-K, Herzog W (2007) Novel in situ chondrocyte indentation study. Journal of Biomechanics, Proceedings of the XXI Congress of the International Society of Biomechanics, Taipei, Taiwan, July 1-5 pg(s) S39. Podium Presentation.
483. Han S-K, Korhonen R, Herzog W (2007) Hypotonic osmotic loading of chondrocytes in their physiological environment. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 18. Poster Presentation.
484. Herzog W (2007) Force depression and force enhancement in skeletal muscle contraction. Proceedings of the 2nd Congress of the Greek (Hellenic) Society of Biomechanics, Athens, Greece, May 4-6 pg(s) 13.
485. Herzog W, Leonard TR (2007) Residual force depression is not abolished following a quick shortening step. Proceedings of the American Society of Biomechanics Conference, Stanford University, CA, August 22-25 pg(s) CD16.
486. Hisey B, Leonard TR, Herzog W (2007) The effect of stretch magnitude on force enhancement. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 13. Podium Presentation.
487. Joumaa V, Leonard TR, Herzog W (2007) Calcium-dependent passive force enhancement in rabbit psoas and soleus myofibrils. Proceedings of the 51st Biophysical Society Annual Meeting, Baltimore, MD, March 3-7 pg(s) CD3024-B387. Poster Presentation.

488. Joumaa V, Leonard TR, Herzog W (2007) Active and passive force enhancement in rabbit psoas myofibrils. Proceedings of the American Society of Biomechanics Conference, Stanford University, CA, August 22-25 pg(s) CD227.
489. Korhonen R, Han S-K, Herzog W (2007) Osmotic environment of in situ chondrocytes modulates cell deformations along collagen fibrils. Transactions of the 53rd Annual meeting of the Orthopaedic Research Society, San Diego, CA, February 11-14.
490. Lee E-J, Herzog W (2007) Stretch-induced changes of cross-bridge kinetics on residual force enhancement. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 5. Podium Presentation.
491. Lee E-J, Herzog W (2007) The effect of temperature on residual force enhancements in single skeletal muscle fibres. Proceedings of the American Society of Biomechanics Conference, Stanford University, CA, August 22-25 pg(s) CD68.
492. Lee HD, Kawakami Y, Herzog W (2007) Effects of muscle architecture on force enhancement following active muscle stretching in human tibialis anterior in vivo. Journal of Biomechanics, Proceedings of the XXI Congress of the International Society of Biomechanics, Taipei, Taiwan, July 1-5 pg(s) S689-212. Poster Presentation.
493. Leonard TR, Joumaa V, Herzog W (2007) Sarcomeres on the descending limb of the force-length relationship exhibit stable behaviour. Proceedings of the 51st Biophysical Society Annual Meeting, Baltimore, MD, March 3-7 pg(s) CD3032-B395. Poster Presentation.
494. McKenzie A, Herzog W (2007) An experimental model of dilated cardiomyopathy. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 19. Poster Presentation.
495. Mehta A, Herzog W (2007) Muscle myosin stepping. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 33. Poster Presentation.
496. Sawatsky A, Bourne D, Jinha A, Herzog W (2007) Changes in patellofemoral contact pressure due to imbalance in knee extensor forces. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 1. Podium Presentation.
497. Sawatsky A, Bourne D, Jinha A, Herzog W (2007) Changes in patellofemoral contact pressure due to imbalance of the knee extensors. Proceedings of the American Society of Biomechanics Annual Meeting, Stanford University, CA, August 22-25 pg(s) 13.
498. Szabo E, Leonard TR, Herzog W (2007) Quadriceps strength training inhibition following ACL injury. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 21. Podium Presentation.
499. Yaraskavitch M, Herzog W (2007) Changes in passive muscle properties in cerebral palsy patients. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 28. Poster Presentation.
500. Youssef A, Seerattan R, Leonard TR, Herzog W (2007) Muscle weakness causes joint degeneration in rabbits. Proceedings of the 8th Annual Alberta Biomedical Engineering Conference, Banff, AB, October 19-21 pg(s) 23. Podium Presentation.
501. Bourne D, Muldrew K, Herzog W (2006) Cartilage cell viability after in vivo impact and muscular loading. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 74.
502. Butterfield T, Herzog W (2006) The magnitude of muscle strain does not influence serial sarcomere number adaptations following eccentric exercise. Medicine and Science in Sports and Exercise 38 (5):S260.
503. Federico S, Herzog W (2006) Micro-structural models of articular cartilage. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S407.
504. Federico S, Valderrabano V, Dhawan V, Han S-K, Herzog W (2006) Elastic properties of human knee and ankle cartilage. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S24.

505. Grillo A, Federico S, Ait-Haddou R, Giaquinta G, Herzog W (2006) Reversible ratchet in closed systems. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S235.
506. Han S-K, Federico S, Herzog W (2006) In situ chondrocyte deformation study with new indentation system. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 4.
507. Herzog W (2006) Passive force enhancement or not? Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S39.
508. Herzog W (2006) The role of muscles in joint regeneration. The Interaction of Mechanics and Biology in Knee Joint Restoration and Regeneration, June 28-30, Berlin pg(s) 13.
509. Herzog W, Hisey B, Leonard TR (2006) Does force enhancement increase with increasing stretch magnitudes? Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S65.
510. Joumaa V, Rassier D, Brattberg H, Leonard TR, Jinha A, Herzog W (2006) Mechanism(s) of passive force enhancement in skeletal muscle: titin and/or cross-bridges? Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 76.
511. Joumaa V, Rassier D, Leonard TR, Herzog W (2006) Is titin's calcium-dependent stiffness responsible for passive force enhancement in skeletal myofibrils. Proceedings of the 6th International Muscle Energetics Conference, Banff, AB, July 22-27 pg(s) 61.
512. Korhonen R, Herzog W (2006) Deformation of chondrocytes is associated with collagen fibril orientation in articular cartilage. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 143.
513. Korhonen R, Julkunen P, Herzog W (2006) Collagen network and fixed charge density of articular cartilage modulate time- and depth-dependent behavior of chondrocytes. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S24.
514. Lee E-J, Herzog W (2006) Increased force enhancement on the descending limb of the force-length relationship. Proceedings of the 6th International Muscle Energetics Conference, Banff, AB, July 22-27 pg(s) 63.
515. Lee E-J, Herzog W (2006) The effect of BDM on passive force enhancement in skeletal muscle. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 57.
516. Lee E-J, Rassier D, Herzog W (2006) Stretch-induced force enhancement above the plateau of the force-length relationship in single muscle fibers. Proceedings of the Biophysical Society 50th Annual Meeting, Salt Lake City, UT, February 18-22 pg(s) 491. Poster Presentation.
517. Leonard TR, Herzog W (2006) Sarcomeres on the descending limb of the force length relationship are stable. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 67.
518. Leonard TR, Joumaa V, Herzog W (2006) Sarcomeres are stable and show significant force enhancement on the descending limb of the force length relationship in single myofibrils. Proceedings of the 6th International Muscle Energetics Conference, Banff, AB, July 22-27 pg(s) 62.
519. Li LP, Korhonen R, Iivarinen J, Jurvelin JS, Herzog W (2006) Differences in creep and relaxation responses of articular cartilage. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 66.
520. Li LP, Korhonen R, Iivarinen J, Jurvelin JS, Herzog W (2006) Can one mechanism explain creep and relaxation tests of articular cartilage? The Transactions of the 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, IL, March 19-22 31:1512.
521. Mehta A, Altman D, Forrester K., Spudich J, Herzog W (2006) Is residual force enhancement caused by a stretch induced increase in the duty ration of cross bridges? Proceedings of the 6th International Muscle Energetics Conference, Banff, AB, July 22-27 pg(s) 59.

522. Oskouei MAE, Herzog W (2006) The dependence of force enhancement on activation in human adductor pollicis. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 135.
523. Rassier D, Herzog W (2006) Phase transition of force during ramp stretch of muscle fibers treated with BDM. Proceedings of the Biophysical Society 50th Annual Meeting, Salt Lake City, UT, February 18-22 pg(s) 751-Plat.
524. Rode C, Siebert T, Till T, Blickhan R, Herzog W (2006) Simultaneous parameter estimation of muscles with pronounced parallel elastic component. Journal of Muscle Research and Cell Motility, Special Issue on the European Muscle Conference, Heidelberg, Germany, Sept 9 - 12 27 (5-7):527.
525. Rode C, Siebert T, Till T, Blickhan R, Herzog W (2006) Simultaneous parameter estimation of muscles with pronounced parallel elastic component. Proceedings of the European Muscle Conference, Heidelberg, Germany, September 9-12.
526. Rousanoglou E, Herzog W, Boudolos K (2006) Torque-angle relationship for limited muscle contraction times. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S39.
527. Siebert T, Rode C, Blickhan R, Herzog W (2006) Parallel elastic component alters classic force-length relation of striated muscle with pronounced passive elasticity. Journal of Muscle Research and Cell Motility, Special Issue on the European Muscle Conference, Heidelberg, Germany, Sept 9 - 12 27 (5-7):526.
528. Siebert T, Wagner H, Herzog W, Blickhan R (2006) Fitting muscle properties of cat M. soleus. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S485.
529. Vaz MA, Longino D, Leonard TR, Frank CB, Herzog W (2006) Six months botulinum toxin-induced quadriceps muscle weakness in the rabbit. Journal of Biomechanics, Abstracts of the 5th World Congress of Biomechanics, Munich, Germany, July 29-August 4 39 (Suppl 1):S42.
530. Walcott S, Herzog W (2006) Can traditional cross-bridge models explain force-enhancement? Proceedings of the Biophysical Society 50th Annual Meeting, Salt Lake City, UT, February 18-22 pg(s) 1517-Plat.
531. Walcott S, Ruina A, Herzog W (2006) A state variable model of muscle. Proceedings of the 5th World Congress of Biomechanics, Munich, Germany, July 29 - August 4 pg(s) CD6643.
532. Weiss-Bundy K, Herzog W (2006) The short-term effects of botulinum toxin type-A on the cat soleus muscle. Proceedings of the XIVth Biennial Conference for the Canadian Society for Biomechanics, Waterloo, ON, August 16-19 pg(s) 69.
533. Bourne D, Herzog W (2005) Biologic response of cartilage to in-vivo loading. Proceedings of the 3rd Annual Meeting of the Alberta Provincial CIHR Training Program in Bone and Joint Health, Banff, AB, October 20-21 pg(s) Pres12.
534. Bourne D, Muldrew K, Herzog W (2005) Cartilage cell viability after in vivo impact loading. Proceedings of the 6th Alberta Biomedical Engineering Conference, Banff, AB, October 21-23 pg(s) 11. Poster Presentation.
535. Bourne D, Muldrew K, Herzog W (2005) Cartilage cell viability after in vivo impact loading. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD68.
536. Bullimore SR, Leonard TR, Rassier D, Herzog W (2005) Effect of stretch or shortening amplitude on subsequent isometric muscle force. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD24.
537. Butterfield T, Herzog W (2005) The interaction between surface grade and exercise duration for serial sarcomere adaptations following treadmill running in rats. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD298.
538. Federico S, Grillo A, Giaquinta G, Herzog W (2005) A non-linear, anisotropic, inhomogeneous model of articular cartilage. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD3.

539. Federico S, Herzog W (2005) Modelling anisotropic, hyperelastic materials in ABAQUS. Proceedings of the 2005 ABAQUS Users' Conference, Stockholm, Sweden, May 18-20 pg(s) 159-169.
540. Han S-K, Federico S, Grillo A, Herzog W (2005) Influence of the pericellular microenvironment on chondrocyte modelling. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD787.
541. Han S-K, Federico S, Grillo A, Herzog W (2005) Chondrocyte modelling in the pericellular microenvironment. Proceedings of the 6th Alberta Biomedical Engineering Conference, Banff, AB, October 21-23 pg(s) Pres26.
542. Herzog W (2005) Considerations on muscle mechanics and sport performance. Proceedings of the 2005 KAHPERD International Sport Science Congress, Chuncheon, Korea, August 25-27 pg(s) 311.
543. Herzog W (2005) Force enhancement and mechanisms of contraction in skeletal muscle. Proceedings of the 27th Annual International Conference of IEEE Engineering in Medicine and Biology Society, Shanghai, China, September 1-4 pg(s) 27.
544. Lee E-J, Herzog W (2005) Modulation of passive force in skeletal muscle fibres. Proceedings of the 2005 KAHPERD International Sport Science Congress, Chuncheon, Korea, August 25-27 pg(s) 312.
545. Lee E-J, Rassier D, Herzog W (2005) Modulation of passive force in skeletal muscle fibers. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD119.
546. Lee E-J, Rassier D, Herzog W (2005) Passive force modulation in skeletal muscle through activation. Proceedings of the 6th Alberta Biomedical Engineering Conference, Banff, AB, October 21-23 pg(s) Pres28.
547. Lemos R, Epstein M, Herzog W (2005) Structured modeling of skeletal muscle during contraction. Proceedings of the 2005 Summer Bioengineering Conference, Vail, Colorado, June 22-26 pg(s) CDv.1.
548. Oskouei MAE, Herzog W (2005) Force enhancement in sub-maximal voluntary contractions. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD92.
549. Oskouei MAE, Herzog W (2005) Observations on force enhancement in sub-maximal voluntary contractions. Proceedings of the 6th Alberta Biomedical Engineering Conference, Banff, AB, October 21-23 pg(s) 30. Poster Presentation.
550. Peterson D, Herzog W (2005) Muscle power amplification in frog jumping muscle: considerations on elastic mechanisms. Proceedings of the 3rd Annual meeting of the Alberta Provincial CIHR Training Program in Bone and Joint Health, Banff, AB, October 20-21 pg(s) 26. Poster Presentation.
551. Peterson D, Herzog W (2005) A biomechanical analysis of jumping performance in the frog, *Rana pipiens*. Proceedings of the Society of Experimental Biology, Barcelona, Spain, July 9-16 pg(s) 145-146.
552. Rassier D, Herzog W (2005) Phase transition of force during ramp stretch of muscle fibers with BDM. Proceedings of the ISB XXth Congress - ASB 29th Annual Meeting, Cleveland, OH, July 31 - August 5 pg(s) CD118.
553. Rassier D, Jinha A, Leonard TR, Herzog W (2005) Passive force and sarcomere length non-uniformity in single myofibrils. Biophysical Society 49th Annual meeting, Long Beach, CA, February 12-16 pg(s) 1523P. Poster Presentation.
554. Rouhi G, Epstein M, Sudak L, Herzog W (2005) Free surface density and microdamage in the bone remodeling equation: theoretical considerations. Proceedings of the 9th International and 13th Annual Mechanical Engineering Conference, Isfahan, Iran, May pg(s) CD.
555. Rouhi G, Herzog W, Sudak L, Epstein M (2005) Geometric feedback in the bone remodeling equation: a modification on the adaptive elasticity model. Proceedings of the 9th International and 13th Annual Mechanical Engineering Conference, Isfahan, Iran, May pg(s) CD.
556. Rouhi G, Herzog W, Sudak L, Epstein M (2005) Free surface density instead of volume fraction in the bone remodeling equations. Proceedings of the 20th Canadian Congress of Applied Mechanics, McGill University, Montreal, June 2 pg(s) 113-114.

557. Rouhi G, Herzog W, Sudak L, Epstein M (2005) Free surface density instead of volume fraction in the bone remodeling equations. 20th Congress of Applied Mechanics, McGill University, Montreal, QC, May 30-June 2 pg(s) 113-114. Poster Presentation.
558. Rouhi G, Herzog W, Sudak L, Epstein M (2005) Modeling bone resorption using mixture theory: mechanical and biological factors. 20th Congress of Applied Mechanics, McGill University, Montreal, QC, May 30-June 2 pg(s) 114. Poster Presentation.
559. Vaz MA, Longino D, Frank CB, Leonard TR, Herzog W (2005) Long term model of botulinum toxin-induced muscle weakness in the rabbit. Proceedings of the ISB XXth Congress - ASB 29th Annual meeting, Cleveland, OH, July 31 - August 5 pg(s) CD201.
560. Yaraskavitch M, Weiss-Bundy K, Leonard TR, Herzog W (2005) The effects of botulinum toxin type-A on the mechanical properties of skeletal muscle. Proceedings of the 6th Alberta Biomedical Engineering Conference, Banff, AB, October 21-23 pg(s) 12. Poster Presentation.
561. Ait-Haddou R, Herzog W (2004) On the collective behavior of the myosin II motor and muscle contraction. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD78.
562. Betik A, Herzog W (2004) Force-length relationship of mouse soleus and optimal stimulation parameters for force enhancement protocols. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD173.
563. Butterfield T, Herzog W (2004) Small changes in the timing of activation affects fiber lengths and serial sarcomere number adaptations in rabbit tibialis anterior exposed to eccentric exercise. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 46.
564. Butterfield T, Herzog W (2004) The effect of muscle activation timing on fiber strain during eccentric contractions. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD140.
565. Clark AL, Herzog W, Hart DA, Mills L, Leonard TR (2004) Muscle induced patellofemoral joint loading effects cartilage mRNA levels. 50th Annual meeting of the Orthopaedic Research Society, San Francisco, CA, March 7-10 pg(s) 619. Poster Presentation.
566. Clark AL, Herzog W, Matyas JR, Barclay LD, Leonard TR (2004) Heterogeneous adaptation of the patellofemoral joint to short-and long-term anterior cruciate ligament deficiency. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 126.
567. Corr D, Herzog W (2004) A cross-bridge-based model of force depression: insights into the underlying mechanisms. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD. Poster Presentation.
568. Corr D, Herzog W (2004) Transient Force Growth Following Depression in Whole Skeletal Muscle. Abstracts of the Annual Main Meeting of the Society for Experimental Biology, Heriot-Watt University, Edinburgh, UK, March 29 - April 2 137 (A3):S89.
569. Freitas C, Brentano M.A., Herzog W, Vaz MA (2004) Mechanomyographic signals of the first dorsal interosseous and vastus lateralis muscles during isometric contractions. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD75.
570. Han S-K, Federico S, Epstein M, Herzog W (2004) Articular cartilage stress state in misaligned joints. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD13.
571. Han S-K, Federico S, Grillo A, Musumeci F, Giaquinta G, Herzog W (2004) The mechanical behaviour of chondrocytes using a micro-structural Fe model. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 24.
572. Han S-K, Federico S, Musumeci F, Giaquinta G, Herzog W (2004) FE analysis of the mechanical behaviour of chondrocytes. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 27.

573. Herzog W (2004) Considerations on muscle mechanics and sport performance. International Council of Sport Science and Physical Education, Aristotle University of Thessaloniki, Greece, August 6-11 pg(s) L136. Invited Presentation.
574. Herzog W (2004) Considerations on energy recovery in muscle from in series elasticity. 9th Annual Congress of the ECSS, Clermont-Ferrand, France, July 3-6 pg(s) 134. Invited Presentation.
575. Herzog W (2004) Vertebral artery mechanics during spinal manipulative treatments: myths, misunderstandings, science. Proceedings of the European Chiropractors' Union Convention, Helsinki, Finland, May 20-22 pg(s) 52-55. Keynote Presentation.
576. Herzog W (2004) Considerations on the history dependence of muscle contraction. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD1.
577. Herzog W (2004) Degenerating joint motion: in vivo loads and load transmission. Proceedings of the European Society of Biomechanics Congress, S Hertogenbosch, The Netherlands, July 4-7 pg(s) 710.
578. Herzog W (2004) Considerations on Mechanical Work production in Skeletal Muscle. Abstracts of the Annual Main Meeting of the Society for Experimental Biology, Heriot-Watt University, Edinburgh, UK, March 29 - April 2 137 (A3):S74. Podium Presentation.
579. Lee E-J, Rassier D, Herzog W (2004) Stretch-induced force enhancement exceeds the isometric force at optimum fiber length in single skeletal muscle fibres. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 33.
580. Leonard TR, Herzog W (2004) Does force depression in skeletal muscle depend on the speed of shortening?. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD125.
581. Lepp J, Rassier D, Pollack GH, Herzog W (2004) Sarcomere-length non-uniformity in passive skeletal muscle myofibrils. Biophysical Journal Book of Abstracts, Baltimore, MD, March 3-7 86 (1):2936. Poster Presentation.
582. Lepp J, Rassier D, Pollack GH, Herzog W (2004) Passive skeletal muscle sarcomere mechanics. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 9.
583. Lepp J, Rassier D, Pollack GH, Herzog W (2004) Passive and active sarcomere length non-uniformity in skeletal muscle. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 330.
584. Li LP, Herzog W (2004) Collagen viscoelasticity in articular cartilage plays different roles in uniaxial tension and unconfined compression. 6th International Symposium on Computer Methods in Biomechanics & Biomedical Engineering, Madrid, Spain, February 25-28 pg(s) 5.
585. Li LP, Herzog W (2004) Theoretical considerations on evaluating cartilage degeneration during arthroscopy. The 5th Combined Meeting of the Orthopaedic Research Societies of Canada, USA, Japan and Europe, October 10-13.
586. Li LP, Herzog W (2004) Electromechanical response of articular cartilage in contact with an arthroscopic probe. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD139.
587. Longino D, Frank CB, Herzog W (2004) Botulinum toxin and a new animal model of muscle weakness. Transactions of the 50th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 7-10 pg(s) 901. Podium Presentation.
588. Oskouei MAE, Rousanoglou E, Herzog W (2004) History dependent force production in sub-maximal human voluntary contractions. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD141.
589. Oskouei MAE, Rousanoglou E, Herzog W (2004) Force depression for sub-maximal, voluntary contractions. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 37.

590. Park J-S, Bullimore SR, Leonard TR, Herzog W (2004) Contractile history influences the force-velocity relationship of skeletal muscle. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD. Poster Presentation.
591. Peterson D, Herzog W, Kaya M (2004) Direct measurement of plantaris longus muscle power in the frog *Rana pipiens*. Abstracts of the Annual Main Meeting of the Society for Experimental Biology, Heriot-Watt University, Edinburgh, UK, March 29 - April 2 137 (3):S88. Podium Presentation.
592. Peterson D, Kaya M, Herzog W (2004) A biomechanical analysis of jumping performance in the frog, *rana pipiens*. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 23. Poster Presentation.
593. Peterson D, Kaya M, Herzog W (2004) Biomechanical properties which influence jumping performance in the frog, *rana pipiens*. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD128.
594. Rassier D, Herzog W (2004) Relaxation time increases after active stretch of skeletal muscle. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD6.
595. Rassier D, Herzog W (2004) The Effects of BDM on the Passive Force Enhancement in Muscle Fibers. Biophysical Journal Book of Abstracts, Baltimore, MD, March 3-7 86 (1):1121. Poster Presentation.
596. Rassier D, Leonard TR, Herzog W (2004) Sarcomere non-uniformity associated with stability of skeletal muscle myofibrils. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 98.
597. Rouhi G, Epstein M, Herzog W (2004) The role of geometric feedback and microcracks in bone remodeling: theoretical predictions. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD39.
598. Rouhi G, Epstein M, Herzog W, Sudak L (2004) Governing equations for the process of bone remodeling using a mixture theory approach: theoretical predictions. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD38.
599. Rouhi G, Epstein M, Herzog W, Sudak L (2004) Modeling the bone resorption process using mixture theory with chemical reactions,: new insights. 5th Combined Meeting of the Orthopedic Research Societies of the USA, Canada, Japan, and Europe, Banff, AB, October 10-13 pg(s) 341.
600. Rouhi G, Epstein M, Sudak L, Herzog W (2004) Bone remodeling theories: continuum mechanics approaches. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 15. Poster Presentation.
601. Vaz MA, Fraçao VB, Penz T, da Silveira E, Herzog W (2004) Plantar flexor torque-angle relationship of swimmers and volleyball players. Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD43.
602. Vaz MA, Scheeren E.M., Rassier D, Herzog W, MacIntosh BR (2004) Measures of fatigue: are they consistent? Proceedings of the Thirteenth Biennial Conference, Canadian Society for Biomechanics, Halifax, N.S., August 4 - 7 pg(s) CD8.
603. Weiss-Bundy K, Leonard TR, Herzog W (2004) Muscle weakness and force sharing in the cat hindlimb. Proceedings of the 28th Annual Conference of the American Society of Biomechanics, Portland, OR, September 8-11 pg(s) 83.
604. Weiss-Bundy K, Leonard TR, Herzog W (2004) Muscle weakness and force sharing in the cat hindlimb. Proceedings of the 5th Alberta Biomedical Engineering Conference, Banff, AB, October 22-24 pg(s) 6.
605. Ait-Haddou R, Herzog W (2003) Ratchet versus power-stroke in the function of collective molecular motors. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:122.
606. Ait-Haddou R, Herzog W (2003) Ratchet versus power-stroke in the function of collective molecular motors. Biophysical Journal Book of Abstracts, San Antonio, TX, March 1-5 pg(s) 248a. Podium Presentation.

607. Butterfield T, Herzog W (2003) Sarcomere number adaptation in the rabbit tibialis anterior after chronic eccentric exercise. Proceedings of the 27th Annual Meeting of the American Society of Biomechanics, September 25-27, Toledo, Ohio pg(s) CD. Podium Presentation.
608. Butterfield T, Herzog W (2003) Sarcomere number adaptation in the rabbit tibialis anterior after chronic eccentric exercise. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 10. Poster Presentation.
609. Clark AL, Herzog W, Hart DA, Craig S (2003) Changes in cartilage mRNA levels with dynamic patellofemoral joint loading in-vivo. Proceedings of the 49th annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2-5 pg(s) #0638. Podium Presentation.
610. Clark AL, Herzog W, Hart DA, Mills L, Leonard TR (2003) Site specific differences in cartilage mRNA levels following muscle-induced patellofemoral joint loading. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) #15.
611. Clark AL, Herzog W, Matyas JR, Barclay LD, Leonard TR (2003) Compression-induced changes in chondrocyte shape and volume during the progression of osteoarthritis. Proceedings of the 49th annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2-5 pg(s) #0637. Podium Presentation.
612. Corr D, Heisey DM, Herzog W (2003) Rate of force relaxation following enhancement. Proceedings of the 50th Annual meeting of the American College of Sports Medicine, Medicine and Science in Sports and Exercise, San Francisco, CA 35 (5):S386.
613. Corr D, Herzog W (2003) Rheological modeling of skeletal muscle. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:120.
614. Corr D, Rassier D, Herzog W (2003) Rate of force relaxation following enhancement in single muscle fibers. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 75.
615. Craig S, Herzog W, Muldrew K (2003) In-vivo joint loading and articular cartilage cell viability. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) #19.
616. Craig S, Herzog W, Muldrew K (2003) The effects of in vivo joint loading on articular cartilage cell viability. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 78.
617. Epstein M, Herzog W, Lemos R (2003) Comprehensive muscle models. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:124.
618. Federico S, Herzog W, Wu JZ, La Rosa G (2003) Effects of anisotropy and inhomogeneity on the mechanical behavior of articular cartilage. V National Congress of the Italian Orthopaedic Research Society, Catania, Italy, November 6 - 8 pg(s) CD-Rom.
619. Federico S, Herzog W, Wu JZ, La Rosa G (2003) Transversely isotropic, transversely homogeneous FE analysis of articular cartilage. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 100.
620. Federico S, Herzog W, Wu JZ, La Rosa G (2003) Anisotropic, inhomogeneous FE model for compression tests of articular cartilage. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) #13.
621. Han S-K, Federico S, Epstein M, Herzog W (2003) Quantification of the effects of misalignment in the patellofemoral joint contact. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) #6.
622. Han S-K, Federico S, Herzog W, Epstein M (2003) 3D FE model of the patellofemoral joint contact. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 142.
623. Han S-K, Federico S, Herzog W, Epstein M (2003) 3D FE Model of the feline patellofemoral joint contact. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:190.

624. Herzog W (2003) Mechanisms of force enhancement and force depression in skeletal muscle contraction. IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29 pg(s) CD2030.
625. Herzog W (2003) Towards an understanding of the in vivo biomechanics of joints. Annual meeting of the Society for Experimental Biology, Southampton, UK, March 31-April 4 134 (A-3/Suppl.A5.6):S31. Invited Presentation.
626. Herzog W (2003) Consideration on the mechanisms of contraction of skeletal muscles. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:118. Invited Presentation.
627. Herzog W, Clark AL, Longino D (2003) Joint mechanics in osteoarthritis. Novartis Foundation Symposium 260 pg(s) 9. Keynote Presentation.
628. Herzog W, Leonard TR (2003) The effects of activation on passive force enhancement in skeletal muscle. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 153.
629. Herzog W, Longino D, Clark AL (2003) The role of muscles in joint adaptation and degeneration. Proceedings of the International Symposium on Significance of Musculoskeletal Soft Tissue on Preoperative Planning, Surgery and Healing pg(s) 39.
630. Herzog W, Rassier D (2003) The effects of shortening on the stretch-induced force enhancement in muscle fibers. Biophysical Journal Book of Abstracts, San Antonio, TX, March 1-5 pg(s) 560a. Podium Presentation.
631. Herzog W, Rassier D (2003) The relationship between sarcomere length and force in rabbit psoas myofibrils. Proceedings of the 27th Annual Meeting of the American Society of Biomechanics, September 25-27, Toledo, Ohio pg(s) CD.
632. Kaya M, Leonard TR, Herzog W (2003) A new kinetics-based classification of the stance phase of walking. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 196.
633. Kaya M, Leonard TR, Herzog W (2003) Speed-dependent deactivation of the cat soleus? IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29 pg(s) CD768.
634. Lee E-J, Herzog W, Mills L (2003) Changes in titin's stiffness with different Ca²⁺ concentration in skeletal muscle. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 8. Poster Presentation.
635. Lee HD, Herzog W (2003) Depressant effects of active muscle shortening in in-vivo human adductor pollicis. IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29 pg(s) CD2765.
636. Lemos R, Epstein M, Herzog W, Kawakami Y, Kurihara T, Wyvill B (2003) Modeling the mechanical behaviour of skeletal muscle at different structural levels using a continuum approach. IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29 pg(s) CD670.
637. Lepp J, Rassier D, Pollack GH, Herzog W (2003) Passive sarcomere mechanics in skeletal muscle. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) #14.
638. Li LP, Herzog W (2003) Effect of collagen viscoelasticity on the mechanical response of articular cartilage. 3rd International Symposium on Mechanobiology of Cartilage and Chondrocyte, Brussels, Belgium, May 16 - 18 pg(s) 16-18.
639. Li LP, Herzog W (2003) Small electric signals can produce significant stress/strain in articular cartilage. Proceedings of the 49th annual Meeting of the Orthopaedic Research Society, New Orleans, LA, February 2-5 pg(s) #0652. Podium Presentation.
640. Li LP, Herzog W (2003) A theoretical study of the mechanical response of articular cartilage to impact loading. Proceedings of the 2003 ASME Bioengineering Conference, Florida, June 25-29 pg(s) 467-468. Podium Presentation.

641. Oskouei MAE, van Mazijk B, Schuiling M, Herzog W (2003) Force dependent variability in the interpolated twitch torque. Proceedings of the 27th Annual Meeting of the American Society of Biomechanics, September 25-27, Toledo, Ohio pg(s) CD. Podium Presentation.
642. Peterson D, Herzog W, Rassier D (2003) Force enhancement on the ascending limb of the force-length relationship. Biophysical Journal Book of Abstracts, San Antonio, TX, March 1-5 pg(s) 560a. Podium Presentation.
643. Peterson D, Kaya M, Herzog W (2003) Direct measures of hindlimb muscle power in the frog rana pipiens. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 24.
644. Rassier D, Herzog W (2003) Passive force enhancement after stretch in single muscle fibers. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 332.
645. Rassier D, Herzog W (2003) Force enhancement in skeletal muscle fibers and myofibrils. 19th Canadian Congress of Applied Mechanics, Calgary, AB, June 1-6 1:116.
646. Rassier D, Herzog W (2003) Passive force enhancement after stretch: effects of DBM and datrolene sodium. Proceedings of the 27th Annual Meeting of the American Society of Biomechanics, September 25-27, Toledo, Ohio pg(s) CD. Podium Presentation.
647. Rassier D, Herzog W (2003) Extra-force produced after stretch of skeletal muscle. IFMBE Proceedings of the World Congress on Medical Physics and Biomedical Engineering, Sydney, Australia, August 24-29 pg(s) CD3373.
648. Rassier D, Herzog W, Pollack GH (2003) Sarcomere-length nonuniformity and stability in activated single myofibrils. Biophysical Journal Book of Abstracts, San Antonio, TX, March 1-5 pg(s) 139a. Podium Presentation.
649. Rouhi G, Epstein M, Herzog W (2003) Microdamage as a stimulus for bone remodeling: theoretical considerations. Proceedings of the 4th Biomedical Engineering Conference, Banff, AB, October 24-26 pg(s) 32. Poster Presentation.
650. Rousanoglou E, Herzog W, von Tscharnner V (2003) Force depression following muscle shortening in sub maximal voluntary contractions of human adductor pollicis. 7th IOC Olympic World Congress on Sport Sciences, Athens, Greece, Book of abstracts IOC Medical Commission, Oct 7-11 pg(s) 43B.
651. Rozitis AI, Wakeling JM, Herzog W (2003) Motor unit recruitment in cat locomotion. Annual meeting of the Society for Experimental Biology, Southampton, UK, March 31-April 4 134 (A-3/Suppl. A7.47):S57. Podium Presentation.
652. Wu JZ, Herzog W (2003) Modeling the mechanical response of chondrocytes to cyclic loading in unconfined compression. Proceedings of the XIXth Congress of the International Society of Biomechanics, Dunedin, New Zealand, July 6-11 pg(s) 425.
653. Butterfield T, Leonard TR, Herzog W (2002) Fiber strain and damage during eccentric exercise in the Rabbit TA. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 57.
654. Craig S, Herzog W (2002) The effects of in vivo joint loading on articular cartilage. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 27.
655. Hansen EA, Herzog W (2002) The shape of the force-elbow angle relationship of human elbow flexors during maximal, sub-maximal/potentiated contractions. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB, August 2-3 pg(s) 63.
656. Herzog W (2002) The mechanics of spinal manipulation with special consideration for the osteoporotic. Proceedings of the Swiss Chiropractors Continuing Education Course, Burgenstock, Switzerland, September 19-22.
657. Herzog W (2002) "Muscle Models: Fundamentals and practical applications" History dependence: a forgotten property. Proceedings of the 12th International Conference on Mechanics in Medicine and Biology, Lemnos, Greece, September 9-13 pg(s) 30.
658. Herzog W, Kaya M, Leonard TR (2002) Work production in cat soleus and medial gastrocnemius during locomotion. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 25.

659. Herzog W, Leonard TR (2002) Mechanical properties of the passive component of force enhancement. Proceedings of the Annual meeting of the Society for Experimental Biology, Swansea, UK, April 8-12.
660. Herzog W, Rassier D (2002) Stretch-induced force enhancement in single muscle fibers exceeds isometric plateau forces. Biophysical Journal Book of Abstracts, San Francisco, CA, February 23-27 82:366.
661. Kaya M, Leonard TR, Herzog W (2002) Coordination of cat gastrocnemius and soleus during locomotion based on direct measurement of in vivo muscle forces and Emgs. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
662. Kaya M, Leonard TR, Herzog W (2002) Coordination of cat gastrocnemius and soleus during voluntary movements. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 27.
663. Kaya M, Leonard TR, Herzog W (2002) Coordination of cat MG and SOL during voluntary movements. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 47.
664. Lee HD, Herzog W (2002) History-dependent properties of voluntarily contracting human skeletal muscles. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 61.
665. Lee HD, Herzog W (2002) History-dependent properties of voluntarily contracting human skeletal muscles. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 8.
666. Lee HD, Herzog W, Won Y-D (2002) Force depression following muscle shortening of electrically stimulated and voluntarily activated human adductor pollicis. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
667. Lemos R, Epstein M, Herzog W, Wyvill B (2002) Modeling and Visualization of the Mechanical Behavior of Skeletal Muscle using a Continuum Approach. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
668. MacNaughton M, Leonard TR, Herzog W (2002) In vivo changes in muscular activation before and after anterior cruciate ligament transaction in the feline hindlimb. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 60.
669. Oskouei MAE, Herzog W (2002) Variations in the Superimposed Twitch Technique at 100% MVC. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
670. Peterson D, Rassier D, Herzog W (2002) Force enhancement in single muscle fibers in the ascending limb of the force-length relationship. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
671. Peterson D, Rassier D, Herzog W (2002) Force enhancement in single skeletal muscle fibres on the ascending limb of the force length relationship. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 1.
672. Rassier D, Herzog W (2002) History-dependence of force production in skeletal muscle. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
673. Rassier D, Herzog W, Pollack GH (2002) The behavior of individual sarcomeres after stretch in activated skeletal muscle myofibrils. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
674. Rassier D, Herzog W, Pollack GH (2002) Stretch-induced force enhancement and stability of skeletal muscle myofibrils. Molecular and Cellular Aspects of Muscle Contraction, Proceedings of the Fourth Fujihara Seminar, Hakone, Japan, October 28-November 1 pg(s) 72.
675. Rassier D, Herzog W, Pollack GH (2002) Force enhancement and stability of muscle fibers and myofibrils. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 9.
676. Schachar R, Herzog W, Leonard TR (2002) Force enhancement and force depression following active muscle stretching and shortening on the descending limb of the force-length relationship. Proceedings of the 3rd Alberta Biomedical Engineering Conference, Banff, AB, November 8-10 pg(s) 16.
677. Schachar R, Herzog W, Leonard TR (2002) Force production on the descending limb of the force-length relationship following skeletal muscle stretching and shortening. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 60.

678. Schachar R, Herzog W, Leonard TR (2002) Effects of Stretching and Shortening on Isometric Forces on the Descending Limb of the Force-Length Relationship in Cat Soleus Muscle. Proceedings of the IV World Congress of Biomechanics, Calgary, AB.
679. Vaz MA, Fracao VB, Lammerhirt HM, Rassier D, Herzog W (2002) Functional adaptation of the dorsiflexor torque-angle relation. Proceedings of the Banff Symposium on Skeletal Muscle, Banff, AB pg(s) 42.
680. Ait-Haddou R, Herzog W (2001) Mathematical model for evaluating the variability of the superimposed twitch force in voluntary contractions. 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, Aug 8-11 pg(s) 275.
681. Ait-Haddou R, Herzog W (2001) Reversible ratchets as Brownian Motors. Biophysical Journal Book of Abstracts, 45th Annual meeting, Boston, MA, February 17 - 21 80 (1):72a.
682. Ait-Haddou R, Herzog W (2001) Mathematical model for evaluating the variability of the enhanced force in a superimposed twitch in voluntary contractions. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 373.
683. Archambault JM, Hart DA, Banes AJ, Herzog W (2001) Collagenase induced by organ culture but not exercise in rabbit Achilles tendon. 2nd International Symposium on Ligaments and Tendons, Stanford, CA, February 24 pg(s) 34.
684. Archambault JM, Herzog W, Hart DA (2001) Acute and chronic tendon overuse in a rabbit model. 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, Aug 8-11 pg(s) 181.
685. Couillard S, Herzog W (2001) Accurate articular surface measurement using laser scanning. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 292.
686. Federico S, Herzog W, Wu JZ, La Rosa G (2001) An FE analysis of the effect of boundary conditions on permeability in joint contact mechanics. Proceedings of the Biomechanical IV, Davos, Switzerland, September 23-25 34 (1):S74.
687. Herzog W (2001) The Biomechanics of dynamically contracting skeletal muscle. XIX International symposium on Biomechanics in Sports, University of San Francisco, San Francisco, CA, June 20-26 pg(s) 332-334.
688. Herzog W, Lee HD, Wakeling JM, Schachar R, Leonard TR (2001) History dependent force properties of skeletal muscle: in vitro, in situ and in vivo considerations. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 211.
689. Herzog W, Leonard TR (2001) A new mechanism for force enhancement following stretch of skeletal muscle. Society for Experimental Biology, University of Kent at Canterbury, Canterbury, UK, April 2-6 pg(s) 33.
690. Herzog W, Leonard TR (2001) Can muscles produce more mechanical work than their fibres? 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, Aug 8-11 pg(s) 73.
691. Herzog W, Symons B, Leonard TR (2001) Forces and elongations of the vertebral artery during range of motion testing, diagnostic procedures, and neck manipulative treatments. Proceedings of the World Federation of Chiropractic 6th Biennial Congress, Palais des Congres, Paris, France, May 21 - 26 pg(s) 199.
692. Herzog W, Wu JZ, Clark AL (2001) Mechanical loading Keynote Address Experimental and theoretical investigations in osteoarthritis research. Proceedings of the Biomechanical IV, Davos, Switzerland, September 23-25 34 (1):S29.
693. Hulliger M, Day SJ, Guimaraes ACS, Herzog W, Zhang YT (2001) A new method for experimental simulation of EMG using multi-channel independent stimulation of small groups of motor units. Motor Control 5 (1):61-87.
694. Jinha A, Ait-Haddou R, Herzog W (2001) An interactive graphical solution of the force-sharing problem using optimization. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 373.
695. Kaya M, Leonard TR, Herzog W (2001) Force-sharing among the cat ankle muscles during various types of locomotion. Society for Experimental Biology, University of Kent at Canterbury, Canterbury, UK, April 2-6 pg(s) 33.

696. Kaya M, Leonard TR, Herzog W (2001) The distinct function of cat soleus and medial gastrocnemius during different types of locomotion. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 21.
697. Kaya M, Leonard TR, Herzog W (2001) Consideration of one- and two-joint muscle function based on direct measurement of in vivo muscle forces. 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, Aug 8-11 pg(s) 75.
698. Lee HD, Dinning HJ, Herzog W (2001) Stretch-induced force enhancement in human adductor pollicis during electrical and voluntary stimulation. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 21.
699. Lee HD, Herzog W (2001) Force enhancement following stretch during human voluntary contractions. 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, August 8-11 pg(s) 49.
700. Lemos R, Epstein M, Herzog W, Wyvill B (2001) A proposal for geometric skeletal muscle deformation using finite element analysis. Western Computer Graphics Symposium, British Columbia, March 25-28 pg(s) 89-97.
701. Lemos R, Epstein M, Herzog W, Wyvill B (2001) Design and simulation of a three-dimensional geometric model of skeletal muscle using the finite element method. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 23.
702. Lemos R, Epstein M, Herzog W, Wyvill B (2001) Realistic skeletal muscle deformation using finite element analysis. Proceedings of the XIV Brazilian Symposium on Computer Graphics and Image Processing, Florianopolis, Brazil, October 15-18 pg(s) 192-199.
703. Leonard TR, Kaya M, Herzog W (2001) In vivo mechanics of selected cat hindlimb muscles during locomotion and other activities. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 19.
704. Rassier D, Herzog W (2001) Effects of pH on the length-dependent twitch potentiation in skeletal muscle. 25th Annual Meeting of the American Society of Biomechanics, San Diego, CA, August 8-11 pg(s) 153.
705. Schachar R, Herzog W, Leonard TR (2001) Stability of skeletal muscle on the descending limb of the force-length relationship. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 212.
706. Suter E, Brondino L, Herzog W (2001) Length dependence of muscle inhibition in the elbow flexors. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 354.
707. Wakeling JM, Syme D, Herzog W (2001) Force stability on the descending limb of the force-length relationship. Biophysical Journal Book of Abstracts, 45th Annual meeting, Boston, MA, February 17 - 21 80 (1):270a.
708. Wu JZ, Herzog W, Hasler EM (2001) Biomechanical effects of inadequate placement of osteochondral grafts in cartilage repairs. XVIIIth Congress of the International Society of Biomechanics, Zurich, Switzerland, July 8-13 pg(s) 295.
709. Wu JZ, Herzog W, Hasler EM, Frei H (2001) Inadequate placement of osteochondral grafts may induce abnormal stress-strain distributions in articular cartilage. 47th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, February 25-28 pg(s) 43, paper no. 429.
710. Herzog W (2000) Cartilage cell viability after in vivo impact and muscular loading. Proceedings of the ISB XXth Congress - ASB 29th Annual meeting, Cleveland, OH, July 31 - August 5. Churchill Livingstone, New York, 228 Pages.
711. Ait-Haddou R, Herzog W (2000) A hybrid formalism for cross-bridge models. Xith Congress of the Canadian Society for Biomechanics, Montreal, QC, August 23-26 pg(s) 150.
712. Ait-Haddou R, Herzog W (2000) Reversible ratchets as Brownian Motors. Biophysics and Biochemistry of Motor Proteins, Banff, AB, August 27 - September 1.
713. Ait-Haddou R, Jinha A, Herzog W (2000) A graphical approach to determine synergistic muscle forces using an optimization algorithm. XIth Congress of the Canadian Society for Biomechanics, Montreal, QC, August 23-26 pg(s) 149.

714. Archambault JM, Elfervig MK, Tsuzaki M, Herzog W, Banes AJ (2000) Shear stress response of rabbit tendon cells is serum dependent. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 181.
715. Archambault JM, Tsuzaki M, Herzog W, Banes AJ (2000) Stretching and Interleukin-1Beta induce stromelysin in rabbit tendon cells. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 8.
716. Clark AL, Herzog W, Leonard TR (2000) Contact area and pressure distribution in the feline patellofemoral joint under physiological loading conditions. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 173.
717. Clark AL, Herzog W, Leonard TR (2000) Gross Morphology, contact area and pressure distribution in a long-term feline model of osteoarthritis. Canadian Orthopaedic Research Society, Edmonton, AB, June 3-6 pg(s) 59.
718. Clark AL, Herzog W, Matyas JR, Barclay LD (2000) In situ chondrocyte deformation resulting from static compression of articular cartilage. Proceedings of the 46th Annual meeting of the Orthopaedic Research Society, Orlando, FL March 12-15 no. 104 Pages.
719. Couillard S, Herzog W, Pery V (2000) In-situ cartilage deformation resulting from physiological loading of the feline patellofemoral joint. Proceedings of the XIth Congress of the Canadian Society for Biomechanics, Montreal, QC, August 23-26 pg(s) 179.
720. Herzog W, Hasler EM, Leonard TR (2000) The mechanics and neuromuscular control of the cat knee following ACL transection. Canadian Orthopaedic Research Society, Edmonton, AB, June 3-6 pg(s) 79.
721. Herzog W, Kats M, Symons B (2000) The effective forces transmitted by chiropractic spinal manipulation on the thoracic spine. Proceedings of the Consortium of Canadian Chiropractic Centers, 2nd Symposium, October 21-22 pg(s) 38.
722. Herzog W, Leonard TR (2000) In vivo fibre mechanics and the role of series elasticity on the contractile properties of pennate muscle. 5th Annual Congress of the European College of Sport Science, Jyväskylä, Finland, July 19-23 pg(s) 52.
723. Herzog W, Leonard TR (2000) In vivo mechanics and function of selected cat hindlimb muscles during locomotion. Proceedings of the Society of Experimental Biology, Exeter, UK pg(s) A3.17.
724. Herzog W, Leonard TR (2000) In vivo fibre length changes in the cat soleus. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 147.
725. Herzog W, Leonard TR, Stano A (2000) Force transmission in unipennate skeletal muscle. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 53.
726. Kaya M, Herzog W, Leonard TR (2000) Function of one - and two-joint muscles during cat locomotion based on direct measurement of in vivo muscle forces. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 146.
727. Lee HD, Herzog W (2000) History dependence of force production in cat soleus. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 49.
728. Lee HD, Herzog W (2000) Properties of force depression following shortening contractions. 24th Annual Meeting of the American Society of Biomechanics, University of Illinois at Chicago, IL, July 19-22 pg(s) 131.
729. Pincivero DM, Herzog W, DeLuca CJ, Hortobagyi T, Fleisig GS (2000) Electromyography: Interpretation and application in exercise science. American College of Sports Medicine 47th Annual Meeting, Medicine and Science in Sports & Exercise Book of Abstracts, Indianapolis, IN, May 31 - June 2 32 (5):S205.
730. Schachar R, Herzog W, Leonard TR (2000) Stability and the descending limb of the force-length relation in mammalian skeletal muscle. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 148.
731. Suter E, Herzog W, Wimmer U (2000) The effect of the number of stimuli and the timing of twitch application on the variability in interpolated twitch torque. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 50.

732. Suter E, Lindsay D (2000) Association between trunk muscle endurance and inhibition in the knee extensors in golfers with low back pain. Proceedings of the Consortium of Canadian Chiropractic Centres, 2nd Symposium, October 21-22 pg(s) 16.
733. Symons B, Herzog W (2000) Internal forces experienced by the vertebral artery during spinal manipulative therapy. Proceedings of the Consortium of Canadian Chiropractic Centers, 2nd Symposium, October 21-22 pg(s) 18.
734. Tsuzaki M, Guyton GP, Garrett W, Sung KLP, Archambault JM, Almekinders L, Bynum D, Hsieh AH, Banes AJ, Herzog W (2000) Interleukin-1Beta stimulates expression of COX II and MMP I in human tendon epitenon cells. Forty-Sixth Annual Meeting of the Orthopaedic Research Society, March 12-15 no. 19 Pages.
735. Wakeling JM, Herzog W, Syme D (2000) Force enhancement and stability in skeletal muscle fibers. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 145.
736. Wu JZ, Herzog W (2000) Finite element simulation of cartilage swelling and deformation B convective thermal analogy approach. Proceedings of the 46th Annual Meeting of the Orthopaedic Research Society, March 12-15.
737. Wu JZ, Herzog W (2000) Modelling mechanical behavior of chondrocytes in unconfined compression tests. Canadian Orthopaedic Research Society, Edmonton, AB, June 3-6 pg(s) 58.
738. Wu JZ, Herzog W (2000) Numerical simulation of the mechanical response of chondrocytes in unconfined compression during cyclic loading. XIth Congress of the Canadian Society for Biomechanics, August 23-26 pg(s) 7.
739. Wu JZ, Herzog W (2000) Mechanical anisotropy of articular cartilage is associated with variations in microstructures. 24th Annual Meeting of the American Society of Biomechanics, University of Illinois at Chicago, IL, July 19-22 pg(s) 275.
740. Ait-Haddou R, Herzog W (1999) Towards a hybrid theory in cross-bridge models. Proceedings of the Canmore Symposium on Skeletal Muscle, Canmore, AB, August 6-7 pg(s) 33.
741. Ait-Haddou R, Herzog W, Binding PA (1999) Muscle coordination using a non-linear optimization approach: A theoretical study. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 393.
742. Allinger TL, Herzog W, ter Keurs HEDJ (1999) Sarcomere length nonuniformities and stability on the descending limb of the force-length relation of mouse skeletal muscle. Proceedings of the Canmore Symposium on Skeletal Muscle, Canmore, AB, August 6-7 pg(s) 38.
743. Carvalho W, Leonard TR, Herzog W (1999) The influence of pennation and series elasticity on the sarcomere force-length behavior of cat skeletal muscle. Proceedings of the Canmore Symposium on Skeletal Muscle, Canmore, AB, August 6-7 pg(s) 42.
744. Carvalho W, Leonard TR, Herzog W (1999) Structural changes during isometric contractions of the cat medial gastrocnemius. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 345.
745. Clark AL, Herzog W, Matyas JR, Barclay LD (1999) Chondrocyte deformation resulting from in-situ static compression of articular cartilage. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 339.
746. Kaya M, Herzog W, Leonard TR (1999) Consideration on the function of mono- and biarticular muscles during cat locomotion. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 635.
747. Lee HD, Suter E, Herzog W (1999) Effect of shortening speed on force depression during voluntary muscle contraction. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 67.
748. Lemos R, Epstein M, Herzog W, Carvalho W, Wyvill B (1999) Three-dimensional geometric model of skeletal muscle. Proceedings of the Canmore Symposium on Skeletal Muscle, Canmore, AB, August 6-7 pg(s) 45.

749. Leonard TR, Herzog W, Suter E, Nguyen H (1999) Measurement of relative bone movement in the anterior cruciate ligament transected cat knee using sonomicrometry. Proceedings of the 45th Annual Meeting, Orthopaedic Research Society, Anaheim, CA, February 1-4 pg(s) 19.
750. Neptune RR, Herzog W (1999) Adaptation of muscle coordination to environmental changes during steady-state cycling. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 925.
751. Neptune RR, Herzog W (1999) The association between negative muscle work and preferred pedaling rates. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 312.
752. Suter E, Herzog W, Bray R (1999) Muscle inhibition and knee extensor activity in patients with ACL pathologies. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 252.
753. Suter E, McMorland GM, Herzog W, Bray R (1999) Effects of sacroiliac joint manipulation on quadriceps inhibition in patients with anterior knee pain. Proceedings of the International Society for the Study of the Lumbar Spine, Hawaii pg(s) 145B.
754. Suter E, McMorland GM, Herzog W, Bray R (1999) Effects of sacroiliac joint manipulation on quadriceps inhibition in patients with anterior knee pain: a randomized controlled trial. Proceedings of the World Federation of Chiropractic 5th Biennial Congress, Auckland, New Zealand pg(s) 181.
755. Symons B, Leonard TR, Herzog W (1999) Strain in vertebral and carotid arteries during high-speed, low-amplitude chiropractic neck manipulation. World Conference of Chiropractic, New Zealand pg(s) 148-149.
756. Wu JZ, Herzog W (1999) A structural finite element model of contractile behavior in skeletal muscle. Proceedings of the Canmore Symposium on Skeletal Muscle, Canmore, AB, August 6-7 pg(s) 30.
757. Wu JZ, Herzog W, Epstein M (1999) Analysis of changes in the joint contact mechanics by inserting a presensor film into an articular joint. Proceedings of the 45th Annual Meeting, Orthopaedic Research Society, Anaheim, CA, February 1-4 pg(s) 945.
758. Wu JZ, Herzog W, Epstein M (1999) Dynamic mechanical response of chondrocytes in unconfined compression - finite element simulation. Proceedings of the 45th Annual Meeting, Orthopaedic Research Society, Anaheim, CA, February 1-4 pg(s) 11.
759. Wu JZ, Herzog W, Leonard TR (1999) Modelling history-dependent behavior of muscle during concentric contraction. Proceedings of the XVIIth International Society of Biomechanics Congress, Calgary, AB, August 8-13 pg(s) 390.
760. Archambault JM, Herzog W, Leonard TR (1998) Measurement of tendon strain in situ with sonomicrometry. 3rd World Congress of Biomechanics, Sapporo, Japan, August 2-8 pg(s) 321a.
761. Carvalho W, Herzog W, Leonard TR (1998) Global deformation of unipennate cat medial gastrocnemius during dynamic contraction. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 221-222.
762. Conway PJW, Herzog W, Suter E (1998) The frequency response of cavitation caused by spinal manipulation. Proceedings of 1998 International Conference on Spinal Manipulation, Vancouver, B.C., July 16-19 pg(s) 102-104.
763. Forcinito M, Epstein M, Herzog W (1998) A rheological muscle model capable to predict force depression/enhancement. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 225-226.
764. Herzog W (1998) The Biomechanics of Joint Injury and Disease (Keynote Lecture). Proceedings of the 14th Conference of the Japanese Society for Biomechanics, Kofu City, Japan.
765. Herzog W (1998) Force sharing among ankle flexor and extensors. 160th Conference of the Dutch Anatomical Society, Lunteren, The Netherlands, January 9-10 pg(s) S2:11.
766. Herzog W (1998) Experimental and theoretical considerations on force-sharing among one- and multi-joint synergistic muscles. 3rd World Congress of Biomechanics, Sapporo, Japan, August 2-8 pg(s) 100a.

767. Herzog W (1998) Contact mechanics in natural joints. 3rd World Congress of Biomechanics, Sapporo, Japan, August 2-8 pg(s) 110b.
768. Herzog W, Conway PJW, Scheele D (1998) Reflex responses associated with spinal manipulation. Proceedings of 1998 International Conference on Spinal Manipulation, Vancouver, B.C., July 16-19 pg(s) 105-107.
769. Herzog W, Leonard TR (1998) Central vs Peripheral mechanisms of force-sharing among synergistic muscles. 3rd World Congress of Biomechanics, Sapporo, Japan, August 2-8 pg(s) 92b.
770. Herzog W, Wu JZ, Leonard TR (1998) Force depression following shortening in mammalian skeletal muscle: energy considerations. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 233-234.
771. Herzog W, Wu JZ, Suter E, Leonard TR (1998) The effect of changes in cartilage properties on force transmission across joints in an experimental model of osteoarthritis. Proceedings of the Orthopaedic Research Society 23 (2):898.
772. Jinha A, Herzog W, Binding PA (1998) The behavior of optimization algorithms to solve for force-sharing among muscles. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 215-216.
773. Koh TJ, Herzog W (1998) Muscle adaptation helps to maintain joint torque near normal levels in a model of tendon transfer. Proceedings of the Orthopaedic Research Society 23 (1):165.
774. Koh TJ, Herzog W (1998) Excursion is important in regulating sarcomere number in growing animals. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 577-578.
775. Lee HD, Suter E, Herzog W (1998) Force depression in human skeletal muscle following voluntary shortening contractions. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 579-580.
776. McMorland GM, Suter E, Herzog W, Bray R (1998) Decrease in quadriceps inhibition after sacroiliac joint manipulation in patients with anterior knee pain. Proceedings of the Consortium of Canadian Chiropractic Research Centres: Inaugural Conference, Calgary, AB, November 14-15 pg(s) 34.
777. Suter E, Herzog W, Bray B (1998) Neuro-muscular activation patterns of knee extensor muscles in patients with ACL deficiency. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 81-82.
778. Suter E, Herzog W, Bray B (1998) Muscle inhibition in patients with unilateral anterior knee pain syndrome before and after medical and surgical intervention. Proceedings of 1998 International Conference on Spinal Manipulation, Vancouver, B.C., July 16-19 pg(s) 129-131.
779. Suter E, McMorland GM, Herzog W, Bray R (1998) Effects of sacroiliac joint manipulation on quadriceps inhibition in patients with anterior knee pain. Proceedings of the Consortium of Canadian Chiropractic Research Centres: Inaugural Conference, Calgary, AB, November 14-15 pg(s) 35.
780. Symons B, Herzog W, Leonard TR (1998) Strains in vertebral and carotid arteries during cervical manipulation. The Inaugural Scientific Conference of the Consortium of Canadian Chiropractic Research Centres, Calgary, AB, November 14-15.
781. Symons B, Herzog W, Leonard TR, Nguyen H (1998) Reflex responses associated with Activator 7 treatment. Proceedings of 1998 International Conference on Spinal Manipulation, Vancouver, B.C., July 16-19 pg(s) 132-134.
782. Wu JZ, Herzog W, Epstein M (1998) Simulating time-dependent stress and deformation of chondrocytes during cartilage deformation. Proceedings of the Orthopaedic Research Society 23 (2):582.
783. Wu JZ, Herzog W, Epstein M (1998) Inserting a pressensor film into an articular joint changes the contact mechanics of the joint. Proceedings of the 3rd North American Congress on Biomechanics, Waterloo, ON, August 14-18 pg(s) 201-202.

784. Wu JZ, Herzog W, Epstein M (1998) Numerical model of time-dependent stress and deformation of chondrocytes in articular cartilage. Proceedings of the sixth Symposium on Computational Methods in Orthopaedic Biomechanics pg(s) 6-7.
785. Archambault JM, Herzog W, Hart DA (1997) Responses of rabbit Achilles tendon to chronic repetitive loading. Transactions of the 43rd Annual meeting of the Orthopaedic Research Society, San Francisco, CA, February 9-13 22:28.
786. Banes AJ, Horesovsky G, Noel S, Judex S, Archambault JM, Benjamin M, Raephs J, McNeilly C, Zernicke RF, Herzog W, Miller L (1997) Mechanical load stimulates expression of novel genes in vivo and in vitro in avian flexor tendon cells. Transactions of the 43rd annual meeting of the Orthopaedic Research Society, San Francisco, CA, February 9-13 22:710.
787. Forcinito M, Epstein M, Herzog W (1997) Discrete correction to the continuous formula for the stiffness of a sarcomere. Proceedings of the 15th Canadian Congress of Applied Mechanics, Quebec City, QC, June 1-5 pg(s) 593-594.
788. Herzog W (1997) Specificity and plasticity in mammalian skeletal muscle. Satellite Symposium of ISB 1997, Tokyo Congress, Tokyo, Japan.
789. Herzog W, Leonard TR (1997) Long-lasting or transient force depressions in skeletal muscles following shortening. XVIth Congress of the International Society of Biomechanics, Tokyo, Japan pg(s) 37.
790. Herzog W, Suter E, Hasler EM, Leonard TR (1997) Experimental model of osteoarthritis. Proceedings of the Arthritis 2000 Conference, Ottawa, ON pg(s) 35.
791. Herzog W, Wu JZ, Leonard TR, Suter E, Diet S, Muller C, Mayzus P (1997) Mechanical and functional properties of cat knee articular cartilage 16 weeks post ACL transection. XVIth Congress of the International Society of Biomechanics, Tokyo, Japan pg(s) 410.
792. Prilutsky BI, Herzog W, Allinger TL (1997) Forces of individual cat ankle extensor muscles during locomotion predicted using static optimization. XVIth Congress of the International Society of Biomechanics, Tokyo, Japan pg(s) 41.
793. Wu JZ, Herzog W, Epstein M (1997) A numerical-analytical model simulating mechanical responses of biphasic cartilage under dynamic loading. Proceedings, Fifth annual symposium of Computational Methods in Orthopaedic Biomechanics, San Francisco, CA pg(s) 5.
794. Wu JZ, Herzog W, Epstein M (1997) Modeling mechanical responses of biphasic cartilage under dynamic loading. XVIth Congress of the International Society of Biomechanics, Tokyo, Japan pg(s) 314.
795. Archambault JM, Herzog W (1996) Response of the rabbit plantar flexors to chronic stimulation. Proceedings of the Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., August 21-24 pg(s) 254-255.
796. Archambault JM, Herzog W, Hart DA (1996) An animal model for the study of exercise induced Achilles tendinitis. Proceedings of the Canadian Orthopaedic Research Society, Quebec City, QC, May 24 pg(s) 50.
797. Forcinito M, Epstein M, Herzog W (1996) Calculation of the theoretical stiffness for a discrete sarcomere model. Proceedings of the Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., August 21-24 pg(s) 104-105.
798. Forcinito M, Epstein M, Herzog W (1996) Mechanical considerations on sarcomere stiffness. Proceedings of the Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., August 21-24 pg(s) 20-21.
799. Hasler EM, Herzog W (1996) Knee mechanics after sham surgery and ACL transection in the cat. Proceedings of the Canadian Orthopaedic Research Society, Quebec City, QC, May 24 pg(s) 53.
800. Hasler EM, Herzog W, Leonard TR, Stano A, Nguyen H (1996) Acute changes in knee joint loading and kinematics after ACL transection in the cat hindlimb. Proceedings of the Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., August 21-24 pg(s) 398-399.
801. Herzog W (1996) The Biomechanics of spinal Manipulative therapy. Year Book of Chiropractic (ed. D.J. Lawrence) pg(s) 127-128.

802. Herzog W, Conway PJW (1996) Gait analysis of sacroiliac joint patients. Year Book of Chiropractic (ed. D.J. Lawrence) pg(s) 129-130.
803. Herzog W, Hasler EM, Leonard TR (1996) An accurate and reliable method for calibrating an implantable force transducer. Proceedings of the Canadian Orthopaedic Research Society, Quebec City, QC, May 24 pg(s) 51.
804. Herzog W, Leonard TR (1996) History-dependence of muscular force: shortening contractions. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 256-257.
805. Kawchuk GN, Herzog W (1996) External stiffness of the lumbar spine at rest compared to conditions of voluntary extension. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 374-375.
806. Koh TJ, Leonard TR, Stano A, Herzog W (1996) A system for chronic loading of muscle and tendon. Proceedings of the Canadian Orthopaedic Research Society, Quebec City, QC, May 24 pg(s) 52.
807. Liu MM, Herzog W (1996) Predicting muscle forces from EMG signals using an artificial neural network. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 110-111.
808. Pun MO, Zhang YT, Herzog W (1996) Neuromuscular force estimation from dynamic myoelectrical signal using artificial recurrent neural network approach. International Conference on Biomedical Engineering, Hong Kong, June 3-5 pg(s) 198-201.
809. Suter E, Herzog W, Leonard TR (1996) Changes in the kinematics and external kinetics after ACL transection in a long-term animal model of osteoarthritis. Proceedings of the Canadian Orthopaedic Research Society, Quebec City, QC, May 24 pg(s) 81.
810. Suter E, Herzog W, Leonard TR (1996) Changes in loading characteristics and joint degeneration after ACL transection: a long-term animal model of osteoarthritis. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 350-351.
811. Vaz MA, Herzog W, MacIntosh BR, Epstein M, Svedahl K, Zhang YT (1996) Mechanism of muscle vibrations during stimulated and voluntary isometric contractions of human skeletal muscle. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 316-317.
812. Wu JZ, Herzog W, Epstein M (1996) Dynamic response of articular joints with biphasic cartilage layers. Proceedings, Ninth Biennial Conference, Canadian Society for Biomechanics, Burnaby, B.C., pg(s) 382-383.
813. Dorotich P, Herzog W, Stano A, Jackson R (1995) A device for the measurement of forces and moments in three dimensions during nordic skiing. XVth Congress of the International Society of Biomechanics, Jyvaskyla, Finland, July 2-6 pg(s) 232-233.
814. Forcinito M, Herzog W (1995) A model of the mechanics and energetics of muscular contractions based on structural considerations. Proceedings of the 15th Canadian Congress of Applied Mechanics, Victoria, BC, May 28-June 2 pg(s) 744-745.
815. Hasler EM, Herzog W, Leonard TR (1995) Muscular forces and EMGs before and after transection of the anterior cruciate ligament in the cat hindlimb. Proceedings of the 19th Annual Meeting of the American Society of Biomechanics, Stanford, CA, August 24-26 pg(s) 5-6.
816. Hasler EM, Herzog W, Leonard TR (1995) External and internal joint loading in intact and anterior cruciate ligament deficient cat hindlimbs. Transactions of the Combined Orthopaedic Research Societies Meeting, San Diego, CA, November 5-8 pg(s) 55.
817. Herzog W (1995) Muscle in movement and Sport. Proceedings of the 3rd World Congress on Sport Sciences, Atlanta, GA, September 16-22 pg(s) 116-119.
818. Herzog W, Hasler EM, Maitland ME, Ronsky JL, Leonard TR (1995) In-situ pressure and displacement measurements in ACL-deficient knee joints. The Whitaker Foundation Biomedical Engineering Research Conference, Snowbird, UT.
819. Herzog W, Leonard TR (1995) Soleus forces and soleus force potential during unrestrained cat locomotion. XVth Congress of the International Society of Biomechanics, Jyvaskyla, Finland pg(s) 382-383.

820. Kawchuk GN, Herzog W (1995) A new method of assisting tissue stiffness (compliance). Proceedings of the Chiropractic Centennial Foundation, Washington, D.C., July 6-8 pg(s) 240-241.
821. Koh TJ, Herzog W (1995) Muscle adaptations associated with increasing the moment arm of the rabbit tibialis anterior. Transactions of the Combined Orthopaedic Research Societies Meeting, San Diego, CA pg(s) 318.
822. Maitland ME, Bell GD, Mohtadi NGH, Herzog W (1995) Quantitative analysis of anterior cruciate ligament instability. *Clinical Biomechanics* 20:93-97.
823. Prilutsky BI, Herzog W, Leonard TR (1995) Mechanical work and peak forces of cat ankle extensor muscles as possible determinants of the gait transition from walking to trotting. XVth Congress of the International Society of Biomechanics, Jyvaskyla, Finland pg(s) 744-745.
824. Ronsky JL, Herzog W, Hasler EM, Brown TD (1995) Influence of joint loading on in-situ patellofemoral joint cartilage contact. Proceedings, 1995 Bioengineering Conference, The American Society of Mechanical Engineers, Beaver Creek, CO pg(s) 137-138.
825. Savelberg HHCM, Herzog W (1995) Artificial neural networks used for the prediction of muscle forces from EMG-patterns. XVth Congress of the International Society of Biomechanics, Jyvaskyla, Finland pg(s) 810-811.
826. Suter E, Herzog W, Hilgersom I (1995) Reflex inhibition in the quadriceps muscles of healthy subjects as a function of knee angle. Transactions of the Combined Orthopaedic Research Societies Meeting, San Diego, CA pg(s) 398.
827. Vaz MA, Herzog W, Zhang YT, Leonard TR, Nguyen H (1995) Mechanism of electrically elicited vibrations in the in-situ cat soleus muscle. Proceedings, 3rd European Conference on Engineering and Medicine, Florence, Italy pg(s) 86.
828. Wu JZ, Herzog W, Cole GK (1995) Modelling the mechanical response of muscle under stretch and shortening. XVth Congress of the International Society of Biomechanics, Jyvaskyla, Finland pg(s) 1008-1009.
829. Zhang YT, Herzog W, Liu MM (1995) A mathematical model of myoelectric signals obtained during locomotion. Proceedings of the 17th Annual International Conference of IEEE Engineering in Medicine and Biology Society and 21st Canadian Medical and Biological Engineering Conference, Montreal, QC.
830. Zhang YT, Herzog W, Liu MM (1995) Adaptive demodulation of muscle force from myoelectric signals obtained during locomotion. Proceedings of the 17th Annual International Conference of IEEE Engineering in Medicine and Biology Society and 21st Canadian Medical and Biological Engineering Conference, Montreal, QC.
831. Allinger TL, Herzog W, Epstein M (1994) Analytical considerations about the stability of a muscle fiber composed of independent sarcomeres. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 18-20 pg(s) 84-85.
832. Archambault JM, Herzog W (1994) Regional strain behavior of the cat patellar tendon during submaximal loading. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 21-24 pg(s) 288-289.
833. Brooks JG, Herzog W, Leonard TR (1994) Fiber dynamics of unipennate cat medial gastrocnemius during active shortening. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 18-20 pg(s) 72-73.
834. Brooks JG, Herzog W, Leonard TR (1994) Simultaneous measurement of whole muscle and fiber force-length properties of the cat MG in-situ. Second World Congress of Biomechanics, Amsterdam, The Netherlands, July 10-15, vol.II, pg(s) 284b.
835. Cole GK, van den Bogert AJ, Herzog W (1994) Modelling of force production in skeletal muscle undergoing stretch. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 18-20 pg(s) 36-37.
836. De Souza K, Herzog W, Bray R (1994) Reflex inhibition: Application of the interpolated twitch technique. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 18-20 pg(s) 134-135.

837. Forcinito M, Herzog W (1994) A model of the mechanics and energetics of muscular contractions: Consideration on a half sarcomere. Proceedings of the Eighth Biennial Conference, Canadian Society for Biomechanics, Calgary, AB, August 18-20 pg(s) 40-41.
838. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1994) Force-displacement characteristics of vertebrae during fast and slow manipulative thrusts to unembalmed post-rigor human cadavers. Second World Congress of Biomechanics, Amsterdam, The Netherlands, July 10-15, vol.II pg(s) 313a.
839. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1994) Relative movements of vertebral bodies that accompany cracking sounds (cavitation) during manipulative thrusts to unembalmed post-rigor human cadavers. 1994 International Conference on Spinal Manipulation, Palm Springs, CA, June 10-11 pg(s) 55.
840. Guimaraes ACS, Herzog W, Allinger TL, Zhang YT (1994) EMG-force relation of the cat soleus muscle during locomotion. Second World Congress of Biomechanics, Amsterdam, The Netherlands, July 10-15, vol.I pg(s) 75a.
841. Hasler EM, Herzog W, Ronsky JL, Pedersen DR, Brown TD (1994) Comparison of theoretically calculated and measured patellofemoral contact forces in the cat knee joint. 28th Annual Meeting of the Canadian Orthopaedic Research Society, Winnipeg, MB, June 12-13 pg(s) 52.
842. Herzog W (1994) Adequacy of skeletal muscle models used in sports performance optimization procedures. Second World Congress of Biomechanics, Amsterdam, The Netherlands, July 10-15, vol.II pg(s) 138a.
843. Herzog W (1994) Force-sharing among synergistic muscles. Second World Congress of Biomechanics, Amsterdam, The Netherlands, July 10-15, vol.II pg(s) 114a.
844. Herzog W, Conway PJW, Kawchuk GN, Zhang YT, Hasler EM (1994) Forces exerted during spinal manipulative therapy. Journal of Manipulative and Physiological Therapeutics 17:68.
845. Herzog W, Archambault JM (1994) Evaluation of the implantable force transducer for chronic force recordings in the cat patellar tendon. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 106-107.
846. Herzog W, Ronsky JL, Hasler EM, Maitland ME (1994) In-situ pressure and displacement measurements in ACL-deficient knee joints. The Whitaker Foundation Biomedical Engineering Research Conference, Snowbird, UT.
847. Herzog W, Zhang YT, Conway PJW (1994) Propagation velocity of acoustic-arthrographic signals generated from the human metacarpophalangeal joint. Proceedings of World Congress on Medical Physics and Biomedical Engineering, Rio de Janeiro, Brazil pg(s) 754.
848. Kawchuk GN, Herzog W (1994) Tissue compliance measurement: Wishful thinking? 1994 International Conference on Spinal Manipulation, Palm Springs, CA, June 10-11 pg(s) 26.
849. Kawchuk GN, Herzog W (1994) Determination of the reliability and accuracy of a standard method of tissue compliance measurement using non-biological test surfaces. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 298.
850. Maitland ME, Bell GD, Mohtadi NGH, Herzog W (1994) Evaluation of end-feel in Lachman's Test by measurement of stiffness and change in stiffness. 28th Annual Meeting of the Canadian Orthopaedic Research Society, Winnipeg, MB, June 12-13 pg(s) 52.
851. Maitland ME, Shrive NG, Frank CB, Herzog W (1994) Kinematics of the ACL deficient cat knee: A possible mechanism of patellofemoral dysfunction. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 110-111.
852. Prilutsky BI, Herzog W, Leonard TR (1994) Transfer of mechanical energy between ankle and knee joints by cat gastrocnemius and plantaris muscles during walking and trotting. Second World Congress of Biomechanics, Amsterdam, vol.II, pg(s) 126a.
853. Prilutsky BI, Herzog W, Leonard TR, Allinger TL (1994) Role of the muscle belly and tendon of cat soleus, gastrocnemius, and plantaris in mechanical energy absorption and generation during locomotion. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 252-253.

854. Ronsky JL, Herzog W, Pedersen DR, Hasler EM, Brown TD (1994) The influence of joint alignment, joint stability and muscular force on in situ patellofemoral joint contact characteristics. 28th Annual Meeting of the Canadian Orthopaedic Research Society, Winnipeg, MB, June 12-13 pg(s) 39.
855. Sokolosky J, Herzog W, Zhang YT, Guimaraes ACS (1994) EMG-force relation in dynamically contracting cat plantaris muscle. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 186-187.
856. Suter E, Herzog W, Conway PJW, Zhang YT (1994) Reflexantwort bei manueller Behandlung der Wirbelsäule. Schweiz Sportmedizin Kongress Schweiz Gesellsch für sportmedizin, La Chaux-de Fonds, pg(s) 8.
857. Suter E, Herzog W, Maki WA (1994) Prediction of fiber type area from functional testing of human knee extensor muscles. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 254-255.
858. Vaz MA, Herzog W, Zhang YT, Zhao LQ (1994) The influence of muscle length on electrically elicited muscle vibrations. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 256-257.
859. Vaz MA, Zhang YT, Guimaraes ACS, Herzog W (1994) Behavior of human rectus femoris and vastus lateralis during fatigue and recovery: an EMG and VMG study. Second World Congress of Biomechanics, Amsterdam, vol.I, pg(s) 74a.
860. Yuan DF, Zhang YT, Herzog W (1994) The probability density function of vibromyographic and electromyographic signals for different levels of contraction of human quadriceps muscles. Proceedings, 16th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Baltimore, MD 2:351-352.
861. Yuan DF, Zhang YT, Herzog W (1994) Characterization of vibromyographic and electromyographic signals using autocorrelation functions. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 260-261.
862. Yuan DF, Zhang YT, Herzog W, Zhao LQ (1994) Probability density function of vibromyographic signals and its comparison with that of EMG signals at different levels of muscle contraction. Proceedings of the Canadian Medical and Biological Engineering Society Conference, Vancouver, B.C, May 1-5 pg(s) 12-13.
863. Zhang YT, Herzog W, Vaz MA (1994) Effects of the inter-stimulus interval statistics on vibromyographic signals obtained during pseudo-random electric neuromuscular stimulation. Proceedings of the Eighth Biennial Conference for the Canadian Society for Biomechanics, Calgary, AB pg(s) 262-263.
864. Zhang YT, Herzog W, Vaz MA, Guimaraes ACS (1994) Vibromyographic manifestations of localized muscular fatigue. Second World Congress of Biomechanics, Amsterdam, vol.II, pg(s) 289b.
865. Zhang YT, Herzog W, Zhao LQ, Guimaraes ACS (1994) Adaptive estimation of muscle force from EMG during locomotion. Second World Congress of Biomechanics, Amsterdam, vol.I, pg(s) 88a.
866. Zhang YT, Herzog W, Zhao LQ, Guimaraes ACS (1994) Performance analysis of the LMS algorithm for adaptive modelling of biomedical signals obtained during dynamic movements. Proceedings of World Congress on Medical Physics and Biomedical Engineering, Rio de Janeiro, Brazil pg(s) 918.
867. Zhang YT, Shen L, Zhao LQ, Herzog W (1994) A random stimulation to study muscular fatigue. Second World Congress of Biomechanics, Amsterdam, vol.I, pg(s) 77b.
868. Zhao LQ, Zhang YT, Herzog W, Yuan DF (1994) A theoretical study of muscle vibrations: The influence of transducer mass on vibromyographic signals. Proceedings of the Canadian Medical and Biological Engineering Society Conference, Vancouver, B.C, May 1-5 pg(s) 16-17.
869. Allinger TL, Herzog W (1993) Calculated activation of cat soleus muscle during locomotion. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 82-83.
870. Allinger TL, Herzog W (1993) Nonuniform sarcomere dynamics during shortening and stretch-shortening contractions with whole muscle. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 84-85.

871. Allinger TL, Herzog W (1993) Calculated activation of cat soleus muscle during locomotion. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 791.
872. Allinger TL, Herzog W (1993) Nonuniform sarcomere dynamics during shortening and stretch-shortening contractions with whole muscle. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 638.
873. Allinger TL, Herzog W (1993) Calculated fiber lengths in cat gastrocnemius muscle during walking. Journal of Biomechanics 3:296.
874. Brooks JG, Herzog W, Leonard TR (1993) External loading of intact and anterior cruciate ligament deficient cat hindlimbs. Journal of Biomechanics 3:339.
875. Brooks JG, Herzog W, Leonard TR, Allinger TL (1993) Function of cat plantaris in ankle extension and digit flexion: a quantitative approach. Journal of Biomechanics 3:353.
876. Conway PJW, Zhang YT, Herzog W (1993) The use of an external Sennheiser microphone to confirm cavitation signals obtained using skin mounted accelerometers. Proceedings of the 1993 International Conference on Spinal Manipulation, Montreal, QC, April 30-May 1 pg(s) 79.
877. Conway PJW, Zhang YT, Herzog W (1993) Sound spectrum analysis of the metacarpalphalangeal joint cavitation signal in order to quantify spinal joint cavitation: Phase 1 model development. Proceedings of the 1993 International Conference on Spinal Manipulation, Montreal, QC, April 30-May 1 pg(s) 80.
878. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1993) Movements of vertebrae during posterior-anterior adjustments to unembalmed cadavers. Proceedings of the 1993 International Conference on Spinal Manipulation, Montreal, QC, April 30-May 1 pg(s) 15.
879. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1993) Measurement of vertebral movements in unembalmed human cadavers using bone pins, surface markers and accelerometers. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 444-445.
880. Gal JM, Herzog W, Kawchuk GN, Conway PJW, Zhang YT (1993) Measurements of vertebral movements in unembalmed human cadavers using bone pins, surface markers and accelerometers. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 799.
881. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1993) Effects of muscle length on EMG, force and EMG-force relation of the cat soleus muscle using stimulation of ventral root filaments. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 520-521.
882. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1993) Effects of muscle length on EMG, force and EMG-force relation of the cat soleus muscle using stimulation of ventral root filaments. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 728.
883. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1993) EMG-force relation of mammalian skeletal muscle (part II): Experimental simulation of recruitment and rate modulation using ten ventral root filaments. Journal of Biomechanics 3:310.
884. Guimaraes ACS, Herzog W, Zhang YT, Hulliger M, Day SJ (1993) EMG-force relation of mammalian skeletal muscle (part 1): Rate modulation of a ventral root filament containing several motor units. Journal of Biomechanics 3:308.
885. Hasler EM, Denoth J, Stacoff A, Herzog W (1993) Influence of hip and knee joint angles on excitation of knee extensor muscles. Journal of Biomechanics 3:364.
886. Hasler EM, Herzog W, Ronsky JL, Pedersen DR, Brown TD, Grood ES, Butler DL (1993) Comparison between theoretical and measured contact forces in the cat patellofemoral joint. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 554-555.
887. Hasler EM, Herzog W, Ronsky JL, Pedersen DR, Brown TD, Grood ES, Butler DL (1993) Comparison between theoretical and measured contact forces in the cat patellofemoral joint. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 801.

888. Herzog W, Adams ME, Matyas JR, Brooks JG (1993) Hindlimb loading and morphological/biochemical assessment of articular cartilage in the ACL-deficient cat knee joint. Proceedings of the 27th Annual Meeting of the Canadian Orthopaedic Research Society, Montreal, QC, pg(s) 66.
889. Herzog W (1993) Mechanisms of control of cat soleus muscle during unrestrained locomotion. Journal of Biomechanics 3:328.
890. Herzog W, Binding PA (1993) Antagonism vs muscular efficiency: Theoretical considerations. Journal of Biomechanics 3:327.
891. Herzog W, Gal JM, Conway PJW, Kawchuk GN (1993) Vertebral movement during spinal manipulative therapy: theoretical considerations. Proceedings of the 1993 International Conference on Spinal Manipulation pg(s) 14.
892. Herzog W, Leonard TR (1993) Changes in force sharing among cat triceps surae muscles as a function of movement intensity. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 13:12-14.
893. Herzog W, Leonard TR (1993) Variations in force sharing among cat triceps surae/plantaris and tibialis anterior muscles for changing speeds of locomotion. International Union of Physiological Sciences, Glasgow, UK, August 1-6 pg(s) 42.
894. Herzog W, Leonard TR, Nguyen H (1993) Force sharing among cat gastrocnemius, soleus and plantaris muscles during a fatigue protocol. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 572-573.
895. Herzog W, Leonard TR, Nguyen H (1993) Force-sharing among cat gastrocnemius, soleus, and plantaris muscles during a fatigue protocol. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 802.
896. Herzog W, Leonard TR, Prilutsky BI (1993) Why is peak soleus force in the cat almost constant at different speeds of locomotion? International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 574-575.
897. Herzog W, Leonard TR, Prilutsky BI (1993) Why is peak soleus force in the cat almost constant at different speeds of locomotion? International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 802.
898. Kawchuk GN, Zhang YT, Conway PJW, Herzog W (1993) Sequential manipulations to the thoracic spine and their effect on achieving cavitation. Proceedings of the 1993 International Conference on Spinal Manipulation pg(s) 16.
899. Koh TJ, Herzog W (1993) Sarcomere number plays an important role in joint mechanics. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 643.
900. Koh TJ, Herzog W (1993) Sarcomere number plays an important role in joint mechanics. Proceedings of the International Congress on Biomechanics pg(s) 702-703.
901. Maitland ME, Leonard TR, Herzog W (1993) Measurement of passive tibial translation in the ACL intact and ACL deficient cat. Journal of Biomechanics 3:339.
902. Ronsky JL, Herzog W, Brown TD, Grood ES, Butler DL (1993) A new technique for In Vivo measurement of Patellofemoral mechanics. Proceedings of the 27th Annual Meeting of the Canadian Orthopaedic Research Society pg(s) 56.
903. Ronsky JL, Herzog W, Hasler EM, Nigg BM, Grood ES, Butler DL (1993) In-vivo force-displacement characteristics of the cat patellar tendon complex. Proceedings of the International Congress on Biomechanics pg(s) 1142-1143.
904. Ronsky JL, Herzog W, Hasler EM, Nigg BM, Grood ES, Butler DL (1993) In-vivo force-displacement characteristics of the cat patellar tendon complex. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 846.
905. Ronsky JL, Herzog W, Brown TD, Leonard TR (1993) In-vivo determination of patellofemoral joint contact pressures. Journal of Biomechanics 3:352.

906. van den Bogert AJ, Janssen C, Herzog W (1993) Isometric properties of lower extremity muscles in cyclists determined by least-squares fitting of muscle models. International Society of Biomechanics XIV Congress, Paris, France, July 4-8 pg(s) 701.
907. van den Bogert AJ, Janssen C, Herzog W (1993) Isometric properties of lower extremity muscles in cyclists determined by least-squares fitting of muscle models. Proceedings of the International Congress on Biomechanics pg(s) 1382-1383.
908. Zhang YT, Herzog W, Conway PJW (1993) Spectral characteristics of simultaneous vibro-arthrogram and acoustic-arthrogram on the human metacarpophalangeal joint. International Conference IEEE/EMBS, San Diego, CA pg(s) 1071-1072.
909. Zhang YT, Herzog W, Sokolosky J, Guimaraes ACS (1993) Adaptive estimation of muscular force from the myoelectric signal obtained during dynamically contracting muscles. Proceedings of the Canadian Conference on Electrical and Computer Engineering, Vancouver, BC, September 14-17 pg(s) 1305-1307.
910. Zhang YT, Herzog W, Vaz MA, Guimaraes ACS (1993) Vibromyography as an index of muscular fatigue. Proceedings of the Canadian Medical and Biological Engineering Society Conference, Ottawa, ON, May 12-14 pg(s) 98-99.
911. Zhang YT, Herzog W, Parker PA, Hulliger M, Guimaraes ACS (1993) Distributed random electrical neuromuscular stimulation: dependence of EMG median frequency on stimulation statistics and motor unit action potentials. Journal of Biomechanics 3:309.
912. Allinger TL, Herzog W (1992) Calculated fiber lengths in cat gastrocnemius muscle during walking. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 81-82.
913. Brooks JG, Herzog W, Leonard TR (1992) External loading of intact and anterior cruciate ligament deficient cat hindlimbs. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 407-408.
914. Brooks JG, Herzog W, Leonard TR, Allinger TL (1992) Function of cat plantaris in ankle extension and digit flexion: a quantitative approach. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 505-506.
915. Conway PJW, Herzog W, Zhang YT, Hasler EM (1992) Identification of the mechanical factors required to cause cavitation during spinal manipulation in the thoracic spine. Proceedings of the 1992 International Conference on Spinal Manipulation, Chicago, IL, May 15-17 pg(s) 18.
916. Conway PJW, Herzog W, Zhang YT, Hasler EM, Ladly K (1992) Forces required to cause cavitation during spinal manipulations in the thoracic spine. Journal of Manipulative and Physiological Therapeutics 15:611.
917. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1992) EMG-force relation of mammalian skeletal muscle (Part I): rate modulation of a ventral root filament containing several motor units. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 175-176.
918. Guimaraes ACS, Herzog W, Hulliger M, Zhang YT, Day SJ (1992) EMG-force relation of mammalian skeletal muscle (Part II): experimental simulation of recruitment and rate modulation using ten ventral root filaments. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 193-194.
919. Hasler EM, Denoth J, Stacoff A, Herzog W (1992) Influence of hip and knee joint angles on excitation of knee extensor muscles. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 577-578.
920. Herzog W (1992) Mechanisms of control of cat soleus muscle during unrestrained locomotion. Proceedings of the Second North American Congress on Biomechanics, Chicago, IL, August 24-28 pg(s) 335-336.
921. Herzog W, Binding PA (1992) Antagonism vs muscular efficiency: theoretical considerations. Proceedings of the Second North American Congress on Biomechanics, pg(s) 327-328.

922. Herzog W, Hasler EM, Conway PJW, Kawchuk GN (1992) Strategies of force application during spinal manipulative therapy. Proceedings of the 1992 International Conference on Spinal Manipulation pg(s) 135.
923. Herzog W (1992) Biomechanical studies of spinal manipulative therapy. Journal of Manipulative and Physiological Therapeutics 15:412.
924. Herzog W, Leonard TR (1992) Validation of optimization models that estimate the forces exerted by synergistic muscles. Applied Mechanics Reviews 45:650.
925. Herzog W, Leonard TR (1992) Changes in force sharing among cat triceps surae muscles as a function of movement intensity. Journal of Biomechanics 7:694.
926. Kawchuk GN, Herzog W, Hasler EM (1992) Various manipulative techniques and their transmission of force to the cervical spine. Proceedings of the 1992 International Conference on Spinal Manipulation pg(s) 51.
927. Kawchuk GN, Herzog W, Hasler EM (1992) Forces generated during spinal manipulative therapy of the cervical spine: a pilot study. Journal of the Canadian Chiropractic Association 36:179.
928. Maitland ME, Leonard TR, Herzog W (1992) Measurement of passive tibial translation in the ACL intact and ACL deficient cat. Proceedings of the Second North American Congress on Biomechanics, pg(s) 409-410.
929. Ronsky JL, Herzog W, Brown TD, Leonard TR (1992) In-vivo determination of patellofemoral joint contact pressures. Proceedings of the Second North American Congress on Biomechanics, pg(s) 495-496.
930. Zhang YT, Herzog W, Parker PA, Hulliger M, Guimaraes ACS (1992) Distributed random electrical neuromuscular stimulation: dependence of EMG median frequency on stimulation statistics and motor unit action potentials. Proceedings of the Second North American Congress on Biomechanics, pg(s) 185-186.
931. Zhang YT, Parker PA, Herzog W, Hulliger M, Guimaraes ACS (1992) Distributed random electrical neuromuscular stimulation: Effects of inter-stimulus interval statistics on EMG spectrum. Proceedings of RESNA International Conference pg(s) 235-237.
932. Zatsiorsky VM, Herzog W, Leonard TR (1992) Relative intercompensation in force output of cat plantaris and gastrocnemius muscles. Journal of Biomechanics 7:698.
933. Conway PJW, Herzog W, Zhang YT, Hasler EM, Ladly K (1991) Forces required to cause cavitation during spinal manipulation in the thoracic spine. Proceedings of the World Chiropractic Congress, Toronto, ON, May 4-5 2:1.
934. Conway PJW, Herzog W, Zhang YT, Hasler EM, Ladly K (1991) Identification of mechanical factors that may cause cavitation during spinal manipulative treatments. Proceedings of the International Conference on Spinal Manipulation, Washington, D.C., April 12-13 3:281-284.
935. Herzog W, Conway PJW, Zhang YT, Hasler EM, Ladly K (1991) Forces exerted during spinal manipulative treatments of the thoracic spine. Proceedings of the International Conference on Spinal Manipulation, Washington, D.C., April 12-13 3:275-280.
936. Herzog W, Zatsiorsky VM, Leonard TR (1991) Force sharing among synergistic muscles for consecutive step cycles. Transactions of the Combined Meeting of the Orthopaedic Research Societies of USA, Japan and Canada, pg(s) 46.
937. Yoshihuku Y, Herzog W (1991) Optimal design parameters of the bicycle-rider system for maximal muscle power output. Applied Mechanics Reviews 44:1388.
938. Zatsiorsky VM, Herzog W, Leonard TR (1991) Relative intercompensation in force output of cat plantaris and gastrocnemius muscles. Proceedings of the International Congress on Biomechanics 3:39-40.
939. Zhang YT, Hulliger M, Herzog W (1991) The EMG spectrum of electrically stimulated muscle: Dependence on the inter-stimulus interval statistics. Proceedings of the Canadian Medical and Biological Engineering Society Conference, Ottawa, ON pg(s) 107-108.
940. Anton MG, Herzog W, Epstein M (1990) Generalized three-dimensional mechanical model of muscular contraction. Proceedings of the First World Congress of Biomechanics, La Jolla, CA, August 30 - September 4 1:190.

941. Anton MG, Herzog W, Epstein M (1990) Force production in unipennate muscles: theoretical considerations. Proceedings of the Sixth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-19 6:147-148.
942. Conway PJW, Herzog W (1990) Changes in walking mechanics associated with wearing an intertrochanteric support belt. Proceedings of the International Conference on Spinal Manipulation, Washington, D.C., May 11-12 2:299-302.
943. Guimaraes ACS, Herzog W, Anton MG, Carter-Erdman KA (1990) Differences in moment-length relations of rectus femoris muscles of speed skaters/cyclists and runners. Proceedings of the Sixth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-19 6:145-146.
944. Herzog W (1990) Synergistic load sharing in mammalian skeletal muscles. Proceedings of the World Congress of Biomechanics, La Jolla, CA, August 30-September 4 2:36.
945. Herzog W (1990) Theoretical considerations for determining internal forces in an intact biological system. Proceedings of the World Congress of Biomechanics, La Jolla, CA, August 30-September 4 2:353.
946. Herzog W, Anton MG (1990) Synergistic load sharing in skeletal muscles. Proceedings of the NASA Symposium on the Influence of Gravity and Activity on Muscle and Bone pg(s) 9.
947. Herzog W, Binding PA, Platt RS (1990) Predictions of antagonistic muscular activity using non linear optimal designs. Journal of Biomechanics 23:713.
948. Herzog W, Hessel BW, Conway PJW, McEwen MC (1990) Force measurements during spinal manipulative therapy. Proceedings of the International Conference on Spinal Manipulation, Washington, D.C., May 11-12 2:292-295.
949. Herzog W, Leonard TR, Renaud JM, Wallace JL, Chaki G (1990) Force-length relations of in-situ cat gastrocnemius muscles. Proceedings of the sixth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-19 6:143-144.
950. Ronsky JL, Herzog W (1990) A geometric model of muscular contraction. Journal of Biomechanics 23:713.
951. Herzog W, Abrahamse SK (1989) Changes in length of human rectus femoris muscle fibers as a function of changes in knee joint angle. Proceedings of the XII International Congress of Biomechanics, Abstract 191, Los Angeles, CA. Journal of Biomechanics 22:1022.
952. Herzog W, Binding PA, Platt RS (1989) Predictions of antagonistic muscular activity using non-linear optimal designs. Proceedings of the 13th Annual Meeting of the American Society of Biomechanics, Burlington, VA, August 23-25 pg(s) 14-15.
953. Herzog W, Heetvelt A, Willcox BJ, Conway PJW (1989) Effects of different treatment modalities on gait symmetry of sacroiliac joint patients. Proceedings of the International Conference on Spinal Manipulation, Washington, D.C., March 31-Apr 1 1:26-32.
954. Read LJ, Herzog W (1989) A model of anterior cruciate ligament injury in alpine skiing. Proceedings of the XII International Congress of Biomechanics, Abstract 188, Los Angeles, CA. Journal of Biomechanics 22:107.
955. Ronsky JL, Herzog W (1989) A geometric model of muscular contraction. Proceedings of the 13th Annual Meeting of the American Society of Biomechanics, Burlington, VA, August 23-25 pg(s) 16-17.
956. Yoshihuku Y, Herzog W (1989) Maximal muscle power output in bicycling as a function of rider position, rate of pedalling and definition of muscle length. Proceedings of the XII International Congress of Biomechanics, Abstract 3, Los Angeles, CA. Journal of Biomechanics 22:1104.
957. Abrahamse SK, Herzog W, ter Keurs HEDJ (1988) Considerations regarding force-length relations of human rectus femoris muscle. Proceedings of the Fifth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-18 pg(s) 30-31.

958. Herzog W, Abrahamse SK (1988) The effects of antagonistic muscle activity on the forces of synergistic muscles. Proceedings of the IEEE Engineering in Medicine and Biology Society, New Orleans, LA, November 4-7 10:637-638.
959. Herzog W, Hoffer JA, Abrahamse SK (1988) Synergistic load sharing in cat skeletal muscles. Proceedings of the Fifth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-18 6:78-79.
960. Herzog W, Read LJ, Abrahamse SK (1988) Force-length relations of human rectus femoris and gastrocnemius muscles. Proceedings of the American Society of Biomechanics, Urbana, Champaign, IL, September 28-30 pg(s) 94-95. Herzog W, Read LJ, Abrahamse SK (1988) Force-length relations of human rectus femoris and gastrocnemius muscles. Journal of Biomechanics 21:866.
961. Read LJ, Herzog W (1988) Force-length relation of in-vivo human gastrocnemius muscle. Proceedings of the Fifth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-18 6:136-137.
962. Yoshihuku Y, Herzog W (1988) Maximal muscle power output during bicycling as a function of rider position and pedalling rate. Proceedings of the Fifth Biannual Conference of the Canadian Society for Biomechanics, Ottawa, ON, August 16-18 6:184-185.
963. Herzog W (1987) Determination of muscle model parameters using an optimization technique. Biomechanics X-B pg(s) 1175-1179.
964. Herzog W (1987) Sensitivity of muscle force calculations using nonlinear optimal designs to changes in muscle input variables. Proceedings of the American Society of Biomechanics Conference, Davis, CA, September 16-18 pg(s) 47-48.
965. Herzog W, ter Keurs HEDJ (1987) In vivo determination of the length-tension relationship of human rectus femoris (RF) muscle. Proceedings of the XI International Congress of Biomechanics, Amsterdam, The Netherlands.
966. Herzog W (1987) Sensitivity of muscle force calculations using nonlinear optimal designs to changes in muscle input variables. Journal of Biomechanics 20:895.
967. Herzog W, Nigg BM, Robinson RO, Read LJ (1987) Quantifying the effects of spinal manipulations on gait using patients with low back pain: a pilot study. Dynamic Chiropractic 5:3.
968. Herzog W (1986) Influence of the amount of information about muscle properties in the cost function on the estimate of individual muscle forces. Proceedings of the North American Congress on Biomechanics, Montreal, QC, August 25-27 1:59-60.
969. Herzog W (1986) Individual muscle force prediction in athletic movements. International Society of Biomechanics Newsletter Autumn.
970. Herzog W (1986) Muscle force predictions using a nonlinear optimal design. Journal of Neuroscience Methods 17:186-197.
971. Herzog W. Force enhancements/force depression and mechanisms of contraction in skeletal muscles. Proceedings of the 7th Australasian Biomechanics Conference.

THESES

1. Herzog W (1985) Individual muscle force predictions in athletic movements. University of Calgary Printing, Calgary, AB.
2. Herzog W (1979) Der Einfluss der Laufgeschwindigkeit und des Sportplatzbelages auf die Belastung des menschlichen Bewegungsapparates (The influence of running speed and running surface on the load of the human body). Federal Technical Institute, Zuerich.

INTERVIEWS AND BROADCASTS

1. Herzog W (2002) Press Conference regarding the death of physician (Stroke assumed to be caused by spinal manipulation) Sheraton, Eau Claire, Calgary, AB June 12, 2002.
2. Herzog W (2018) Film scholar Andre Gaudreault, scientist Walter Herzog among winners of \$100,000 Killam Prize. The Canadian Press: The Globe and Mail, May 8.

3. Herzog w (2018) Killam Prize Winner Walter Herzog. CBC Radio: The Homestretch, Doug Dirks. May 8.
4. Herzog W (2018) University of Calgary professor receives prestigious Killam Prize. CBC News Q&A, Stephen Hunt. May 9.
5. Herzog W (2018) Killam Prize. Global News Radio & 770 CHQR, Danielle Smith Show. May 15.
6. Herzog W, Abusara Z (2018) Meniscus removal in knee surgery can cause major cell death after just hours of exercise: study. CBC News, Sarah Rieger. December 10.
7. Herzog W, Abusara Z (2018) University of Calgary Study links knee damage to osteoarthritis. The Globe and Mail, Michael King. December 10.
8. Herzog W (2018) Pushing the frontiers of knowledge: The 2018 Killam Prize. CBC Radio: Ideas, Paul Kennedy. December 19.

PATENTS

1. Han SK, Herzog W, Shin HJ. Lens-attached tissue cell pressurization device. Patent No Korea 10-1611178 issued April 2016
2. Han SK, Herzog W, Shin HJ. Lens-attached tissue cell pressurization device. Patent No US 10,180,418 B2, issued January 2019