

CURRICULUM VITAE

TIMOTHY JON KOH

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Birthplace: Indianapolis, IN, USA

EDUCATION

1992-1997 Ph.D., University of Calgary, Faculty of Medical Sciences
Major area: Muscle Mechanics; completed June, 1997
1986-1989 M.A., University of Iowa, Department of Exercise Science
Major area: Sport Biomechanics; completed June, 1989
1982-1986 B.S., University of Michigan, School of Engineering
Major area: Interdisciplinary Engineering; completed May, 1986

PROFESSIONAL EXPERIENCE

2013-present Professor, Department of Kinesiology and Nutrition
University of Illinois at Chicago
2007-2013 Associate Professor, Department of Kinesiology and Nutrition
University of Illinois at Chicago
2001-2007 Assistant Professor, Department of Kinesiology and Nutrition
University of Illinois at Chicago
1999-2000 Postdoctoral Fellow, Institute of Gerontology
University of Michigan
1997-1999 Postdoctoral Fellow, Department of Physiological Science
University of California, Los Angeles
1989-1992 Biomechanics Research Engineer, Department of Biomedical Engineering
The Cleveland Clinic Foundation

REVIEWER

Granting agencies: National Institutes of Health, Department of Defense, National Science Foundation, Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, Wellcome Trust (UK), Association Francais contre les Myopathies

Journals: American Journal of Pathology, American Journal of Physiology, American Journal of Respiratory & Critical Care Medicine, FASEB Journal, Free Radical Biology & Medicine, Journal of Applied Physiology, Journal of Biomechanics, Journal of Orthopedic Research, Journal of Physiology, Medicine and Science in Sports and Exercise, Oncogene, Thrombosis & Haemostasis, Wound Repair & Regeneration

HONORS AND AWARDS

1997-2000 National Research Service Award
National Institutes of Health
1997 Space Biology Research Fellowship
National Aeronautics and Space Agency

GRANTS

- Macrophage phenotype and impaired wound healing (2011-2015). Role: PI. Funded by the National Institutes of Health (R01). The primary goal of this project was to determine the role of macrophages in impaired healing of diabetic wounds.
- Enhancement of skeletal muscle repair by the urokinase-type plasminogen activator system (2004-2009). Role: PI. Funded by the Department of Defense. The primary hypothesis of this project is to determine whether urokinase regulates satellite cell activation via activation of hepatocyte growth factor.
- Role of α B-crystallin in protecting skeletal muscle from oxidative stress (2004). Role: PI. Funded by the College of Applied Health Sciences, UIC. The focus of this project is to determine whether α B-crystallin knockout mice show evidence of increased oxidative stress in skeletal muscle.
- Mechanical loading and gene transfer in skeletal muscle (2001-2004). Role: PI. Funded by The Whitaker Foundation. The primary goal of this project was to determine whether mechanical loading can be used to improve gene transfer to muscle.
- Regulation of calpain activity in modified muscle loading (1997-1999). Role: PI. Funded by the National Institutes of Health (F32 award). The primary goal of this project was to determine whether mechanical loading regulates calpain proteolytic activity in muscle.

BOOK CHAPTERS

- Ennis WJ, **Koh TJ**, Urao N, Jan Y-K, Sui A, Brown K, Borhani M (in press). Ischemia/reperfusion: A potential cause for tissue necrosis. In *Skin Necrosis*. Téot L, Meaume S, Del Marmol V, Akita S, Ennis WJ, eds: NY: Springer
- Koh TJ**, Novak ML, Mirza R (2013). Assessing Macrophage Phenotype during Tissue Repair. In *Methods in Molecular Biology*. Gourdie RG, Myers TA, eds. New York, NY: Humana Press.
- Koh TJ**, DiPietro LA (2011). Macrophages and wound healing. In *Advances in Wound Care Vol 2*, Sen C, Ed. New Rochelle, NY: Mary Ann Liebert.
- Koh TJ** (2008). Physiology and Mechanisms of Skeletal Muscle Damage. In *Skeletal Muscle Damage and Repair* Tiidus PM, Ed. Champaign, IL: Human Kinetics.

REFEREED PUBLICATIONS

1. Novak ML, **Koh TJ** (2013). Macrophage activation and skeletal muscle healing following traumatic injury. *J Pathol*, in press.
2. Novak ML, **Koh TJ** (2013). Phenotypic transitions of macrophages orchestrate tissue repair. *Am J Pathol*, in press.
3. Mirza RE, Fang MM, Ennis WJ, **Koh TJ** (2013). Blocking IL-1 β induces a healing-associated wound macrophage phenotype and improves healing in Type-2 diabetes. *Diabetes J*, 62:2579-87.
4. Novak ML, **Koh TJ** (2013). Macrophage phenotypes during tissue repair. *J Leukoc Biol*, 93:875-81.
5. Mirza R, **Koh TJ** (2011). Dysregulation of monocyte/macrophage phenotype in wounds of diabetic mice. *Cytokine*, 56:256-64.
6. Courey AJ, Horowitz JC, Kim KK, **Koh TJ**, Novak ML, Subbotina N, Warnock M, Xue B, Cunningham AK, Lin Y, Goldklang MP, Simon RH, Lawrence DA, Sisson TH (2011). The vitronectin binding function of PAI-1 exacerbates lung fibrosis in mice. *Blood*, 117:1448-57.
7. **Koh TJ**, DiPietro LA (2011). Inflammation and wound healing: the role of the macrophage. *Expert Rev Mol Med*, 13:e23.
8. Novak ML, Bryer SC, Cheng M, Nguyen MH, Conley KL, Cunningham AK, Xue B, Sisson TH, You JS, Hornberger TA, **Koh TJ** (2011). Macrophage-specific expression of uPA promotes skeletal muscle regeneration. *Journal of Immunology*, 187:1448-57

9. Nguyen MH, Cheng M, **Koh TJ** (2011) Impaired skeletal muscle regeneration in ob/ob and db/db mice. *Scientific World Journal*, 11:1525-35.
10. Fang W, Goldberg ML, Pohl NM, Bi X, Tong C, Xiong B, **Koh TJ**, Diamond AM, Yang W (2010). Functional and physical interaction between the selenium-binding protein 1 (SBP1) and the glutathione peroxidase 1 selenoprotein. *Carcinogenesis*, 31:1360-6.
11. Sisson TH, Nguyen MH, Yu B, Novak ML, Simon RH, **Koh TJ** (2009). Urokinase-type plasminogen activator increases hepatocyte growth factor activity required for skeletal muscle regeneration. *Blood*, 114:5052-61.
12. Mirza R, DiPietro LA, **Koh TJ** (2009). Selective and specific macrophage ablation is detrimental to wound healing in mice. *Am J Pathol*, 175:2454-62.
13. Novak ML, Billich W, Smith SM, Sukhija KB, McLoughlin TJ, Hornberger TA, **Koh TJ** (2009) COX-2 inhibitor reduces skeletal muscle hypertrophy in mice. *American Journal of Physiology (Regulatory, Integrative and Comparative Physiology)*, 296:R1132-9.
14. **Koh TJ**, Pizza FX (2009). Do inflammatory cells influence muscle hypertrophy? *Frontiers in Bioscience* E1:60-71.
15. Baliga MS, Diwadkar-Navsariwala V, **Koh T**, Fayad R, Fantuzzi G, Diamond AM (2008) Selenoprotein deficiency enhances radiation-induced micronuclei formation. *Molecular Nutrition and Food Research*, 52:1300-04.
16. Cheng M, Nguyen MH, Fantuzzi G, **Koh TJ** (2008). Endogenous interferon γ is required for efficient skeletal muscle regeneration. *American Journal of Physiology (Cell Physiology)*, 294:C1183-C1191.
17. Bryer SC, Fantuzzi G, van Rooijen N, **Koh TJ** (2008). Urokinase-type plasminogen activator plays a fundamental role in macrophage chemotaxis and is required for efficient skeletal muscle regeneration. *Journal of Immunology*, 180:1179-88.
18. DiPasquale DM, Cheng M, Billich WA, Huang SA, van Rooijen N, Hornberger TA, **Koh TJ** (2007). Macrophages and urokinase-type plasminogen activator are required for skeletal muscle growth in mice. *American Journal of Physiology (Cell Physiology)*, 293:C1278-C1285.
19. Bryer SC, **Koh TJ** (2007). The urokinase-type plasminogen activator receptor is not required for muscle inflammation or regeneration. *American Journal of Physiology (Regulatory, Integrative and Comparative Physiology)*, 293:R1152-R1158.
20. Bryer SC, **Koh TJ** (2007). Mechanical strain increases gene transfer to skeletal muscle cells. *Journal of Biomechanics*, 40:1995-2001.
21. **Koh TJ**, Bryer SC, Pucci A, Sisson TH (2005). Mice deficient in plasminogen activator inhibitor-1 have improved skeletal muscle regeneration. *American Journal of Physiology (Cell Physiology)*, 289:C217-C223.
22. Pizza FX, Peterson JM, Baas JH, and **Koh TJ** (2005). Neutrophils contribute to muscle injury and impair its resolution after lengthening contractions in mice. *Journal of Physiology (London)*, 562:899-913.
23. Hornberger TA, Armstrong DA, **Koh TJ**, Burkholder TJ, Esser KA (2005). Intracellular signaling specificity in response to uniaxial vs. multiaxial stretch: Implications for mechanotransduction. *American Journal of Physiology (Cell Physiology)*, 288:C185-94.
24. Escobedo J, **Koh TJ** (2004). HSP25 protects skeletal muscle cells against oxidative stress. *Free Radical Biology & Medicine*, 37:1455-1462.
25. **Koh TJ**, Escobedo J (2004). Cytoskeletal disruption and small heat shock protein translocation immediately after lengthening contractions. *American Journal of Physiology (Cell Physiology)*, 286:C713-C722.
26. Escobedo J, **Koh TJ** (2003). An improved transfection technique for adherent cells using a commercial lipid reagent. *BioTechniques*, 35:936-8, 940.

27. **Koh TJ**, Peterson J, Pizza FX, Brooks SV (2003). Passive stretches protect muscle from old and young animals from lengthening contraction-induced injury. *Journals of Gerontology: Biological Sciences*, 58:592-597.
28. Pizza FX*, **Koh TJ***, McGregor SJ, Brooks SV (2002). Muscle inflammatory cells after passive stretches, isometric contractions, and lengthening contractions. * co-first authors. *Journal of Applied Physiology*, 92: 1873-1878.
29. **Koh TJ** (2002). Exercise-induced protection from contraction-induced injury: role of small heat shock proteins. *Exercise and Sport Science Reviews*, 30:117-121.
30. **Koh TJ**, Brooks SV (2001). Lengthening contractions are not required for inducing protection of skeletal muscle from contraction-induced injury. *American Journal of Physiology (Regulatory, Integrative, and Comparative Physiology)*, 281:R155-R161.
31. **Koh TJ**, Tidball JG (2000). Nitric oxide inhibits calpain-mediated talin proteolysis in skeletal muscle cells. *American Journal of Physiology (Cell Physiology)* 279:C806-C812.
32. Herzog W, **Koh T**, Hasler E, Leonard T (2000). Specificity and plasticity of mammalian skeletal muscles. *Journal of Applied Biomechanics*, 16:98-112.
33. **Koh TJ**, Tidball JG (1999). Nitric oxide synthase inhibitors reduce sarcomere addition in rat skeletal muscle. *Journal of Physiology (London)* 519:189-196.
34. **Koh TJ**, Herzog W (1998). Excursion is important in regulating sarcomere number in the growing rabbit tibialis anterior. *Journal of Physiology (London)* 508:267-280.
35. Archambault JA, **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.
36. **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.
37. **Koh TJ**, Herzog W (1998). Eccentric training does not increase sarcomere number in rabbit dorsiflexor muscles. *Journal of Biomechanics* 31:499-501.
38. **Koh TJ**, Grabiner MD, Brems JJ (1998). Three-dimensional in vivo motion of the shoulder complex during elevation of the humerus. *Journal of Applied Biomechanics* 14:312-326.
39. **Koh TJ**, Leonard TR (1996). An implantable electrical interface for in vivo studies of the neuromuscular system. *Journal of Neuroscience Methods* 70:27-32.
40. **Koh TJ**, Herzog W (1995). Evaluation of voluntary and elicited dorsiflexor torque-angle relationships. *Journal of Applied Physiology* 79:2007-2013.
41. **Koh TJ** (1995). Do adaptations in muscle length occur with strength training? *Human Movement Science* 14:61-77.
42. Grabiner MD, **Koh TJ**, Draganich LF (1994). Neuromechanics of the patellofemoral joint. *Medicine and Science in Sports and Exercise* 26:10-21.
43. Feuerbach JF, Grabiner MD, **Koh TJ**, Weiker GG (1994). The effect of a rigid orthotic and ligament anesthesia on ankle joint proprioception. *American Journal of Sports Medicine* 22:223-229.
44. Grabiner MD, **Koh TJ**, Lundin T, Jahnigen DW (1993). Kinematics of recovery from a stumble. *Journal of Gerontology* 48:97-102.
45. **Koh TJ**, Grabiner MD, Clough CA (1993). Bilateral deficit is larger for step than for ramp isometric torque generation. *Journal of Applied Physiology* 74:1200-1205.
46. Grabiner MD, **Koh TJ**, von Haefen L (1993). Effect of concomitant hip joint adduction and knee joint extension forces on quadriceps activation. *European Journal of Experimental Musculoskeletal Research* 1:121-124.
47. Yu B, **Koh TJ**, Hay JG (1993). Three-dimensional videography with panning cameras. *Journal of Biomechanics* 26:741-751.

48. **Koh TJ**, Grabiner MD (1993). Evaluation of methods to minimize cross talk in surface electromyograms. *Journal of Biomechanics* 26(Suppl):151-172.
49. Grabiner MD, **Koh TJ**, Elghazawi A (1992). Decoupling of bilateral paraspinal excitation in subjects with low back pain. *Spine* 17:1219-1223.
50. **Koh TJ**, Grabiner MD (1992). Cross talk in surface electromyograms of human hamstring muscles. *Journal of Orthopaedic Research* 10:701-709.
51. Grabiner MD, **Koh TJ**, Miller GF (1992). Further evidence against a direct automatic neuromotor link between the ACL and hamstrings. *Medicine and Science in Sports and Exercise* 24:1075-1079.
52. **Koh TJ**, Grabiner MD, deSwart RJ (1992). In vivo tracking of the human patella. *Journal of Biomechanics* 25:637-643.
53. **Koh TJ**, Grabiner MD, Weiker GG (1992). Technique and ground reaction forces in the back handspring. *American Journal of Sports Medicine* 20:61-66.
54. Grabiner MD, **Koh TJ**, Andrish JT (1992). Decreased neural drive to vastus medialis oblique and vastus lateralis in patellofemoral pain. *European Journal of Experimental Musculoskeletal Research* 1:33-39.
55. Grabiner MD, **Koh TJ**, Miller GF (1991). Fatigue rates of vastus medialis oblique and vastus lateralis during static and dynamic knee extension. *Journal of Orthopaedic Research* 9:391-397.
56. **Koh TJ**, Hay JG (1990). Landing leg motion and performance in the horizontal jumps. I: The long jump. *International Journal of Sport Biomechanics* 6:343-360.
57. **Koh TJ**, Hay JG (1990). Landing leg motion and performance in the horizontal jumps. II: The triple jump. *International Journal of Sport Biomechanics* 6:361-373.
58. Hay JG, **Koh TJ** (1988). Evaluating the approach run in the horizontal jumps. *International Journal of Sport Biomechanics*. 4:372-392.

INVITED PRESENTATIONS

- Role of macrophages in impaired wound healing in diabetes. Presented to the Department of Pharmacology, University of Illinois at Chicago, September, 2013.
- Manipulating inflammation to improve tissue repair. Presented to the Department of Dermatology, Hokkaido University, Sapporo, Japan, July, 2013.
- Manipulating macrophages to improve tissue repair. Presented to the Department of Biomedical Engineering, Stony Brook University, Stony Brook, NY, November, 2012.
- Manipulating macrophages to improve muscle repair. Presented to the Department of Physiology, University of Illinois at Chicago, November, 2012.
- Inflammation and wound healing outcomes. Presented to the 2nd Annual Meeting of the American College of Wound Healing and Tissue Repair, Chicago, IL, July, 2012.
- The role of macrophages in wound healing. Presented to the Section of Endocrinology, Diabetes & Metabolism, College of Medicine, University of Illinois at Chicago, Chicago, IL, November, 2011.
- Yin and yang of macrophages in wound healing. Presented to the 1st Annual Meeting of the American College of Wound Healing and Tissue Repair, Chicago, IL, August, 2011.
- Macrophages and tissue repair: the devil you know? Presented to the Center for Wound Healing and Tissue Regeneration, College of Dentistry, University of Illinois at Chicago, Chicago, IL, November, 2010.
- Macrophages and uPA in tissue repair. Presented to the Department of Physiology, Loyola University, Maywood, IL, July, 2010.
- Urokinase and macrophages in muscle remodeling. Presented to the Department of Animal Sciences, Purdue University, West Lafayette, IN, March, 2010.
- The role of macrophages in tissue repair. Presented to the Department of Exercise Science, University of South Carolina, Columbia, SC, November, 2009.

- Macrophages and the plasminogen system in skeletal muscle remodeling. Presented to the Department of Health and Exercise Science, Colorado State University, Ft. Collins, CO, February, 2007
- Urokinase and macrophages in muscle repair and hypertrophy. Presented to the Department of Kinesiology, University of Illinois, Urbana-Champaign, October, 2006.
- Muscle repair and hypertrophy: roles of inflammatory cells and the plasminogen system. Presented to the School of Sport Sciences, Waseda University, Tokyo, Japan, May, 2006.
- Muscle repair and muscle hypertrophy: how similar are they? Presented to the Department of Kinesiology, University of Toledo, Toledo, OH, April, 2006.
- Urokinase and inflammatory cells in muscle remodeling. Presented to the Department of Nutrition, University of Illinois at Chicago, Chicago, IL, March, 2006.
- The plasminogen system and muscle regeneration. Presented to the Department of Physiology, University of Illinois at Chicago, Chicago, IL, April, 2005.
- Skeletal muscle injury, repair and adaptation. Presented to the Department of Bioengineering, State University of New York, Stony Brook, Stony Brook, NY, July, 2004.
- Exercise-induced protection of skeletal muscle: role of the small heat shock proteins. Presented to the Department of Kinesiology, University of Toledo, Toledo, OH, April, 2004.
- Protecting skeletal muscle from injury. Presented to the Department of Nutrition, University of Illinois at Chicago, Chicago, IL, April, 2003.
- Lengthening contractions are not required to protect skeletal muscle from contraction-induced injury. Presented to the Department of Exercise Science, Georgia Tech University, Atlanta, GA, March, 2001.
- How does skeletal muscle protect itself from injury? Presented to the School of Kinesiology, University of Illinois at Chicago, Chicago, IL, March, 2000.
- Exercise-induced protection from contraction-induced injury. Presented to the Department of Exercise Science, University of Northern Arizona, Flagstaff, AZ, April, 2000.
- Mechanical regulation of longitudinal muscle growth. Presented to the Department of Exercise and Sport Science, University of Wyoming, Laramie, WY, March, 1999.
- Mechanotransduction in skeletal muscle. Presented to the Department of Exercise Science, University of Southern California, Los Angeles, CA, February, 1999.
- Three-dimensional measurement of in vivo patellar tracking. Presented at the 39th Annual Meeting of the American College of Sports Medicine, Dallas, TX, May, 1992.
- The approach run in the horizontal jumps. Presented at the 2nd Annual Conference of the Wisconsin Track Coaches Association, Milwaukee, WI, February, 1991.

SYMPOSIA

- Adaptation to Exercise Stresses: Mechanisms of Protection. Featured Topic Organizer at Experimental Biology 2004, Washington DC, April, 2004.

CONFERENCE PRESENTATIONS

- The NLRP3 inflammasome contributes to persistent inflammation and impaired healing in diabetes, Presented at Annual Meeting of the Wound Healing Society, Denver, CO, May, 2013
- Effect of low-intensity vibration on wound healing in diabetic mice, Presented at Annual Meeting of the Wound Healing Society, Denver, CO, May, 2013
- The NLRP3 inflammasome and impaired wound healing in diabetes. Presented at the Keystone Symposium on Myeloid Cells: Regulation and Inflammation, Keystone, CO, February, 2013.
- Macrophage activation and skeletal muscle healing following traumatic injury. Presented at the Keystone

Symposium on Myeloid Cells: Regulation and Inflammation, Keystone, CO, February, 2013.

Blocking IL-1 β downregulates pro-inflammatory macrophage phenotype and improves healing of wounds in diabetic mice. Presented at Annual Meeting of the Wound Healing Society, Atlanta, GA, April, 2012.

Dysregulation of macrophage phenotype in wounds of diabetic mice. Presented at the Gordon Research Conference on Tissue Repair and Regeneration, New London, NH, June, 2011.

Macrophage-specific expression of uPA promotes skeletal muscle regeneration in mice. Presented at the Gordon Research Conference on Tissue Repair and Regeneration, New London, NH, June, 2011.

uPA and macrophages in skeletal muscle regeneration. Presented at Experimental Biology 2010, Anaheim, CA, April, 2010.

Selective and specific macrophage ablation is detrimental to wound healing in mice. Presented at the Gordon Research Conference on Tissue Repair and Regeneration, New London, NH, June, 2009.

Simvastatin delays muscle regeneration in mice. Presented at the Gordon Research Conference on Tissue Repair and Regeneration, New London, NH, June, 2009.

Role of macrophages in skin wound healing. Presented at the Annual Meeting of the Wound Healing Society, San Diego, CA, April, 2008

Urokinase-type plasminogen activator in macrophage chemotaxis and efficient skeletal muscle regeneration. Presented at the Gordon Research Conference on Tissue Repair and Regeneration, New London, NH, June, 2007.

uPA in macrophage chemotaxis and muscle regeneration. Presented at the Keystone Symposia on The Macrophage: Homeostasis, Immunoregulation and Disease, Copper Mountain, CO, April, 2007.

Enhancement of Skeletal Muscle Repair by Urokinase-type Plasminogen Activator. Presented at Medical Health Research Forum sponsored by the US Army, San Juan, PR, May, 2006.

Urokinase-type plasminogen activator and hepatocyte growth factor in muscle regeneration. Presented at Experimental Biology 2006, San Francisco, CA, April, 2006.

uPA and inflammation in skeletal muscle hypertrophy. Presented at Experimental Biology 2006, San Francisco, CA, April, 2006.

uPAR is not required for skeletal muscle regeneration. Presented at Experimental Biology 2006, San Francisco, CA, April, 2006.

uPA is a positive regulator of muscle regeneration. Presented at the 2004 APS Conference: The Integrative Biology of Exercise, Austin, TX, September, 2004.

Role of HSP25 in protecting skeletal muscle cells from oxidative stress. Presented at Experimental Biology 2004, Washington DC, April, 2004.

Impaired muscle regeneration in uPA deficient mice. Presented at Experimental Biology 2004, Washington DC, April, 2004.

Mechanical strain increases gene transfer in skeletal myotubes. Presented at Experimental Biology 2004, Washington DC, April, 2004.

Small heat shock protein phosphorylation and translocation immediately after eccentric contractions. Presented at the 9th Annual Midwest Stress Response and Molecular Chaperone Conference. Evanston, IL, January, 2004.

Cytoskeletal disruption and small heat shock protein translocation immediately after eccentric contractions. Presented at the FASEB Summer Research Conference: Skeletal Muscle Satellite Cells, Tucson, AZ, July, 2003.

Cytoskeletal disruption immediately following eccentric contractions. Presented at Experimental Biology 2003, San Diego, CA, April, 2003.

An improved transfection technique for adherent cells using a commercial lipid reagent. Presented at Experimental Biology 2003, San Diego, CA, April, 2003.

- Passive stretches protect muscle in old and young mice from lengthening contraction-induced injury. Presented at the IVth World Congress on Biomechanics, Calgary, AB, Canada, August, 2002.
- Lengthening contractions do not increase serial sarcomere number in mouse skeletal muscle. Presented at the 49th Annual Meeting of the American College of Sports Medicine, St Louis, MO, May, 2002.
- Muscle inflammation following passive stretches, isometric contractions, and lengthening contractions. Presented at Experimental Biology 2002, New Orleans, LA, April, 2002.
- Passive stretches and isometric contractions protect muscles in old mice from contraction-induced injury. Presented at the 54th Annual Meeting of the Gerontological Society of America, Chicago, IL, November, 2001.
- A single bout of conditioning protects mouse skeletal muscle from contraction-induced injury. Presented at the 2000 APS Conference: The Integrative Biology of Exercise, Portland, ME, September, 2000.
- Excursion is important in regulating sarcomere number in the growing rabbit tibialis anterior. Presented at the 3rd North American Congress on Biomechanics. Waterloo, Canada, August, 1998.
- Muscle adaptation helps to maintain joint torque near normal levels in a model of tendon transfer. Presented at the 44th Annual Meeting of the Orthopaedic Research Society, New Orleans, LA, March, 1998.
- A system for chronic loading of muscle and tendon. Presented at the Annual Meeting of the Canadian Orthopaedic Research Society, Quebec City, Canada, May, 1996.
- Muscle adaptations associated with increasing the moment arm of the rabbit tibialis anterior. Presented at the 2nd Combined Orthopaedic Research Societies Meeting, San Diego, CA, November, 1995.
- Sarcomere number plays an important role in joint mechanics. Presented at the 14th International Congress on Biomechanics, Paris, France, July, 1993.
- Cross talk in surface electromyograms of human hamstring muscles. Presented at the 13th International Congress on Biomechanics, Perth, Australia, December, 1991.
- Minimizing cross talk in surface electromyograms. Presented at the 13th International Congress on Biomechanics, Perth, Australia, December, 1991.
- In vivo tracking of the human patella. Presented at the 15th Annual Meeting of the American Society of Biomechanics, Tempe, AZ, October, 1991.
- Landing leg motion of the final three strides in the long jump. Presented at the 1st IOC World Congress on Sport Sciences, Colorado Springs, CO, November, 1989.