

CYNTHIA A. TROWBRIDGE PhD, ATC, LAT, CSCS

Department of Kinesiology
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Education

Doctorate of Philosophy (PhD) – Exercise Science with specialization in Physical Medicine and Rehabilitation

Brigham Young University, Provo, UT

August 2004

Dissertation – “The effect of strength and plyometric training on joint position, joint moments, and muscle stiffness”.

Master of Science (MS) - Physical Education/Athletic Training

Indiana State University, Terre Haute, IN

July 1994

Bachelor of Science (BS) - Kinesiology, with distinction

University of Colorado, Boulder, CO

May 1992

Professional Experience

- **University of Texas at Arlington** – August 2004 – present
 - Assistant Professor/Clinical Education Coordinator Athletic Training Education Program (CAATE accredited)
 - Site visit Fall 2008/CAATE renewed 2009
 - Major Duties:
 - Assignment and monitoring of athletic training student clinical rotations
 - Maintenance of clinical site records – 20+ clinical sites
 - Regular communication with clinical sites – visit each site at least once per year
 - Approved Clinical Instructor training – Lead instructor
 - Approved Clinical Instructor updates
- **Brigham Young University** – August 2001 – July 2004
 - Doctoral student/Graduate research assistant
 - Interim Clinical Coordinator – Fall/Winter – 2002 - 03
- **Ithaca College** - August 1994 - 2001
 - Clinical Assistant Professor and Athletic Trainer
 - JV/Varsity Football, Men's and Women's Track and Field, JV Basketball
- **Indiana State University** - August 1993 - July 1994
 - Graduate Athletic Trainer
 - Men's and Women's Cross Country, Track and Field
 - Sports Injury Research Lab Graduate Assistant
 - Duties: Assisted professors in design and implementation of research

Certifications/Licensure

- **Board of Certification**
 - Certified Athletic Trainer (#069302635) - June 1993
- **National Athletic Trainers' Association**
 - Clinical Instructor Educator (CIE) – January 2003
- **National Strength and Conditioning Association**
 - Certified Strength and Conditioning Specialist - December 1996
- **Texas Department of Health – Advisory Board of Athletic Trainers**
 - Licensed Athletic Trainer – January 2005
- **American Heart Association**
 - BLS Instructor
 - First Aid Instructor
- **United States Weightlifting Association**
 - USAW Club Coach Certification - March 1998

Publications

Refereed Journal Articles

- **Trowbridge CA**, Parekh JN, Ricard MD, Potts J, Patrickson WC, and Cason CL. The kinematic and kinetic changes among female rescuers performing cycles of 30:2 CPR and compressions only resuscitation. *BMC Nursing*, 8(6), 2009. <http://www.biomedcentral.com/1472-6955/8/6>.
- Scriber KC and **Trowbridge CA**. Is direct supervision in clinical education for athletic training students always necessary to enhance student learning? *Athletic Training Education Journal*, 4(1): 32-37, 2009.
- Mitchell SM, **Trowbridge CA**, Fincher AL, and Cramer JT. The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *Muscle and Nerve*, 38 (10): 992-1004, 2008.
- Purkayastha S, Cramer JT, **Trowbridge CA**, Fincher AL, and Marek SM. Surface electromyographic amplitude-to-work ratios during isokinetic and isotonic muscle actions. *Journal of Athletic Training*, 41: 314-320, 2006.
- Mangus BC and **Trowbridge CA**. Will caffeine work as an ergogenic aid – the latest research reports. *Athletic Therapy Today*, 10(3): 57-61, 2005.
- **Trowbridge CA**, Draper DO, Jutte LS, Feland BJ, Eggett DL, Ricard MD. ThermaCare HeatWrap produces higher paraspinal and skin temperatures than the Johnson & Johnson Back Plaster and the ABC Warme-Pflaster. *Journal of Orthopedic Sports Physical Therapy*, 34(9): 549-558, 2004.
- Draper DO and **Trowbridge CA**. Continuous low-level heat therapy: What works, What Doesn't. *Athletic Therapy Today*, 8(5): 46-48, 2003.
- Shelley GA, **Trowbridge CA**, Detling, N. Practical counseling skills for the athletic therapist. *Athletic Therapy Today*, 8(2): 57-63, 2003.
- Jones MT and **Trowbridge CA**. (1998). Four ways to a safe and effective resistance training program. *Athletic Therapy Today*, 3(3): 4-9, 1998.

Publications

Refereed Journal Articles

- Bitting LA, **Trowbridge CA**, and Costello LE. A model for a policy on HIV/AIDS and athletics. *Journal of Athletic Training*, 31(4): 356-57, 1997.

Manuscripts submitted

- Solley T, Ricard MD, **Trowbridge CA**, Fincher AL. The effect of passive and active warm-up on hamstring musculature passive tension. *Journal of Sport Rehabilitation*. (Being prepared for resubmission)
- **Trowbridge CA**, Ricard MD, Hopkins JT, Knight KL, Draper DO, and Hilton SC. The effects of strength and plyometric training on joint position and joint moments of the female knee. *Journal of Athletic Training*. (Being prepared for resubmission)

Manuscripts in preparation

- **Trowbridge CA**, Womochel K, Crowder C, Schorr M, and Ricard MD. The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *Journal of Athletic Training*.
- **Trowbridge CA**, Ricard MD, Schorr MJ. Short term effects of diathermy and stretch on the torque-angle relation associated with passive stretch and release of the calf (plantarflexor) muscles. . *Journal of Athletic Training*
- **Trowbridge CA**, Womochel KS, and Davis DR. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. *Athletic Training Health Care Perspectives*.
- **Trowbridge CA**, Ricard MD, Fincher AL, Schorr MJ. The effects of pulsed shortwave diathermy and stretch on the torque-angle relation of the calf (plantarflexor) muscles associated with passive stretch both during and after treatment. *Journal of Athletic Training*.
- Womochel KS, **Trowbridge CA**, and Keller D. The effects of continuous cooling and cyclical compression on intramuscular temperatures and cardiovascular strain. *Journal of Sport Science*.

Refereed Journal Abstracts

- Womochel KS, **Trowbridge CA**, and Keller D. The effects of continuous cooling and cyclical compression on intramuscular temperatures and cardiovascular strain. *Journal of Athletic Training*, 44(3): S87, 2009.
- **Trowbridge CA**, Womochel KS, and Davis DR. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. *Journal of Athletic Training*, 43(3): S58, 2008
- **Trowbridge CA**, Ricard MD, Fincher AL, Schorr MJ. The effects of pulsed shortwave diathermy and stretch on the torque-angle relation of the calf (plantarflexor) muscles associated with passive stretch both during and after treatment. *Journal of Athletic Training*, 43(3): S88-89, 2008
- **Trowbridge CA**, Cason CL, Ricard MD, and Parekh J. The kinematic and kinetic changes among female rescuers performing cycles of 30:2 CPR and compressions only resuscitation. *Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke Conference Proceedings*, 49, 2008.

Refereed Journal Abstracts (cont'd)

- Crowder C, **Trowbridge CA**, Ricard MD, and Womochel K. The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *Journal of Athletic Training*, 42(2): S103, 2007
- **Trowbridge CA**, Ricard MD, Schorr MJ. Short term effects of diathermy and stretch on the torque-angle relation associated with passive stretch and release of the calf (plantarflexor) muscles. *Journal of Athletic Training*, 42(2): S132, 2007
- Marek SM, Fincher AL, **Trowbridge CA**, and Cramer JT. The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *Journal of Athletic Training*, 42(2): S132, 2007
- Fincher AL **Trowbridge CA**, and Ricard MD. A comparison of intramuscular temperature increases and uniformity of heating produced by hand free Autosound™ and manual therapeutic ultrasound techniques. *Journal of Athletic Training*, 42(2): S41, 2007.
- **Trowbridge CA**, Ricard MD, Knight KL, Hopkins JT, Draper DO, and Hilton SC. The effects of strength and plyometric training on joint position and joint moments of the female knee. *Journal of Orthopaedic and Sports Physical Therapy*, 37(2): A25, 2007.
- **Trowbridge CA**, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO, Hilton SC. The effects of strength and plyometric training on joint position and joint moments of the female knee. *Journal of Athletic Training*, 40(2): S90, 2005.
- Draper DO, **Trowbridge CA** The ThermaCare heatwrap increases skin and paraspinal muscle temperature greater than the Curaheat patch. *Journal of Athletic Training*, 39(2): S93, 2004.
- **Trowbridge CA**, Winder RP, Hunter I, Ricard MD. Gender differences in knee torques and angles during different cutting tasks. *Journal of Athletic Training*, 39(2): S110, 2004.
- Draper DO, **Trowbridge CA**, Wells AM, Eggett DL. The ThermaCare heatwrap increases paraspinal muscle temperature greater than the Icy-Hot patch, and the Mentholatum Patch. *Journal of Athletic Training*, 38(2): S45, 2003.
- **Trowbridge CA**, Draper DO, and Schulthies SS. Chronic foot pain in a multisport high school athlete: ATC's treat the cause. *Journal of Athletic Training*, 38(2): S79, 2003.
- **Trowbridge CA**, Draper DO, Jutte LS, Feland BJ, Eggett DL, Ricard MD. A comparison of the Capsicum Back Plaster, the ABC Back Plaster, and the ThermaCare HeatWrap on paraspinal muscle and skin temperature. *Journal of Athletic Training*, 37(2): S102, 2002.
- Knight KL, Ingersoll CD, **Trowbridge CA**, Connolley TA, Cordova ML, Hyink LL, Welch SM. The effects of cooling the ankle, triceps surae, or both on functional agility. *Journal of Athletic Training*, 29(2): S165, 1994.

Non-refereed publications

- **Trowbridge CA** and Magee P. Interactive Neurostimulation (InterX): Basic Science Mechanisms. Neuro Resource Group.

Book

- Sigg J and **Trowbridge CA**, and Hummel CH. Human anatomy workbook. North Chelmsford, MA: Erudition Books, 2001.

Book Chapters (to be completed May 2010)

- **Trowbridge CA**. *The psychology of injury*. In Pfeiffer RP and Mangus BC. Concepts of Athletic Training. 6th ed. Potential release date Summer 2010.
- **Trowbridge CA**. *Nutritional Conditions*. In Pfeiffer RP and Mangus BC. Concepts of Athletic Training. 6th ed. Potential release date Summer 2010.

Thesis Committees

- Erwin J, **Trowbridge CA**, Church B, Graves M, Adams T. The Effects of InterX™ therapy on pain relief in patients suffering from medial tibial stress syndrome. Arkansas State University. June 2009.
- McGavern A, Ricard MD, **Trowbridge CA**, Werner S. Ground reaction force profiles of ACL reconstructed athletes 6 months post operative. The University of Texas at Arlington. April 2008.
- Parehk JN, Ricard MD, Cason CL, and **Trowbridge CA**. Muscle fatigue during CPR administration in middle aged females and young females. The University of Texas at Arlington. July 2007.
- Campbell JC, Ricard MD, Blevins JS, and **Trowbridge CA**. Effects of concentric and eccentric contractions of the knee extensors on mechanical work, lactate concentration, and surface EMG. The University of Texas at Arlington. May 2007
- Schorr MJ, **Trowbridge CA**, and Ricard MD The effects of pulsed shortwave diathermy and stretch on the torque-angle relation of the calf (plantarflexor) muscles associated with passive stretch both during and after treatment. The University of Texas at Arlington. April 2007.
- Bellamkonda P, Ricard MD, Ables A, and **Trowbridge CA**. The effect of instruction of jump-landing technique on the peak vertical forces and the pre-activation of hamstrings and quadriceps in young females. The University of Texas at Arlington. (In preparation)
- Solley T, Ricard MD, **Trowbridge CA**, and Fincher AL. The effect of passive and active warm-up on hamstring musculature passive tension. The University of Texas at Arlington. August 2006.
- Marek SM, Fincher AL, **Trowbridge CA**, and Cramer JT. The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. The University of Texas at Arlington. April 2005.
- Culbertson JY, Cramer JT, **Trowbridge CA**, and Wilson JR. The effects of creatine supplementation and three days of isokinetic training on muscle strength, power output, and neuromuscular function. University of Texas at Arlington. April 2005.

Presentations

International

Oral Presentation

- "Strength and Conditioning" Hong Kong YMCA/Springfield College Diploma Workshop Kowloon, Hong Kong. January 5-14, 1999. Course lecturer and developer – 36 contact hours.

National

Oral Presentations

- **Trowbridge CA**, Womochel KS, Davis DR. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. *National Athletic Trainers' Association Annual Meeting*, St. Louis, MO, June 2008.
- Fincher AL, **Trowbridge CA**, and Ricard MD. A comparison of intramuscular temperature increases and uniformity of heating produced by hand free Autosound™ and manual therapeutic ultrasound techniques. *National Athletic Trainers' Association Annual Meeting*, Anaheim, CA, June 2007.
- Brown S, Parr G, **Trowbridge CA**, Dale J, Fandel D, and Henderson J. Developing a Multidimensional Technology Based Diagnostic Tool: An Innovative Approach to Certification Examination. *National Athletic Trainers' Association Annual Meeting*, Atlanta, GA, June 2006.
- **Trowbridge CA**, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO, Hilton SC. The effects of strength and plyometric training on joint position and joint moments of the female knee. *ACL Research Retreat*. Lexington, KY April 2005.
- **Trowbridge CA**, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO, Hilton SC. The effects of strength and plyometric training on joint position and joint moments of the female knee. *National Athletic Trainers' Association Annual Meeting*, Indianapolis, IN, June 2005.
- **Trowbridge CA, Parr G**. "Writing Quality Test Questions" NATA Educator's Conference. Montgomery, TX. January 21-23, 2005
- **Trowbridge CA**, Draper DO, Schulthies SS. Chronic foot pain in a multisport high school athlete: ATC's treat the cause. *National Athletic Trainer's Association Annual Meeting*. St. Louis, MO, June 2003.

Poster Presentations

- Womochel KS, **Trowbridge CA**, Keller DM. The effects of continuous cooling and cyclical compression on intramuscular temperatures and cardiovascular strain. *National Athletic Trainers' Association Annual Meeting*, San Antonio, TX. June 2009.
- **Trowbridge CA**, Ricard MD, Fincher AL, Schorr MJ. The effects of pulsed shortwave diathermy and stretch on the torque-angle relation of the calf (plantarflexor) muscles associated with passive stretch both during and after treatment. *National Athletic Trainers' Association Annual Meeting*, St. Louis, MO. June 2008.
- **Trowbridge CA**, Cason CL, Ricard MD, and Parekh J. The kinematic and kinetic changes among female rescuers performing cycles of 30:2 CPR and compressions only resuscitation. *Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke Conference*. Baltimore, MD. April 2008.

Presentations

National

Poster Presentations (cont'd)

- Crowder C, **Trowbridge CA**, Ricard MD, and Womochel KS. The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *National Athletic Trainers' Association Annual Meeting*, Anaheim, CA, June 2007.
- **Trowbridge CA**, Ricard MD, Schorr MJ. Short term effects of diathermy and stretch on the torque-angle relation associated with passive stretch and release of the calf (plantarflexor) muscles. *National Athletic Trainers' Association Annual Meeting*, Anaheim, CA, June 2007.
- Marek SM, Fincher AL, **Trowbridge CA**, and Cramer JT. The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *National Athletic Trainers' Association Annual Meeting*, Anaheim, CA, June 2007.
- Draper DO, **Trowbridge CA**. The ThermaCare heatwrap increases skin and paraspinal muscle temperature greater than the Curaheat patch. *National Athletic Trainer's Association Annual Meeting*. Baltimore, MD, June 2004.
- **Trowbridge CA**, Whetten BK, Hunter I, Ricard MD. Gender differences in knee angles, joint moments, and joint reaction forces during different running and cutting tasks. *Rocky Mountain Athletic Trainer's Association Annual Meeting*. Broomfield, CO, March 2004.
- **Trowbridge CA**, Winder RP, Hunter I, Ricard MD. Gender differences in knee torques and angles during different cutting tasks. *National Athletic Trainer's Association Annual Meeting*. Baltimore, MD, June 2004.
- Draper DO, **Trowbridge CA**, Wells AM, Eggett DL. The ThermaCare heatwrap increases paraspinal muscle temperature greater than the Icy-Hot patch, and the Mentholatum Patch. *National Athletic Trainer's Association Annual Meeting*. St. Louis, MO, June 2003.
- **Trowbridge CA**, Draper DO, Jutte LS, Feland BJ, Eggett DL, and Ricard MD. A comparison of the Capsicum Back Plaster, the ABC Back Plaster, and the ThermaCare HeatWrap on paraspinal muscle and skin temperature. *National Athletic Trainer's Association Annual Meeting*. Dallas, TX, June 2002.
- Sigg JA and **Trowbridge CA**. Kinetic and kinematic analysis of plyometric box jumps. *APTA Combined Sessions Meeting*. Boston, MA, February 1998.

On-line Presentations

- Brown S, Parr G, **Trowbridge CA**, Dale J, Fandel D, and Henderson J. Developing a Multidimensional Technology Based Diagnostic Tool: An Innovative Approach to Certification Examination. <http://www.bocatc.org/boconline/Docs/SI-MR-TAB5-567.htm>
- **Trowbridge CA**, Parr G. "Exam Development Team Leader Training: Writing Quality Test Questions" http://www.bocatc.org/BOCATC_Files/BOCWEB/_Items/SI-MR-TAB3-413/docs/Exam%20Dev%20Presentation.ppt.

Presentations

Regional

Oral Presentations

- **Trowbridge CA.** SWATA Competency Workshop Committee. Grand Prairie, TX, January 30, 2009.
- **Trowbridge CA.** Spine rehabilitation. Dallas Fort Worth Sports Medicine Symposium. Arlington, TX, March 29, 2008.
- Womochel KS, **Trowbridge CA**, and Davis DR. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. *Southwest Athletic Trainers' Association Annual Meeting.* Arlington, TX, July 2007. **First Prize Student Competition.**
- Erwin J, **Trowbridge CA**, Watts B, and Reames M. The effect of InterX electrotherapy on pain relief and strength restoration in patients with elbow epicondylitis. *Southwest Athletic Trainers' Association Annual Meeting.* Arlington, TX, July 2007.
- **Trowbridge CA.** Concussion Update. Ben Hogan Sports Medicine Symposium. Ft. Worth, TX, March 24, 2007.
- **Trowbridge CA.** Acromioclavicular Rehabilitation. Dallas Fort Worth Sports Medicine Symposium. Arlington, TX, March 31, 2007.
- Crowder C, **Trowbridge CA**, and Ricard MD. The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *Southwest Athletic Trainers' Association Annual Meeting.* Little Rock, AR, July 2006.
- Schorr MJ, **Trowbridge CA**, and Ricard MD. The Effects of Pulsed Shortwave Diathermy on the Peak Stiffness, Peak Torque, and Average Torque During Passive Dorsiflexion. *Southwest Athletic Trainers' Association Annual Meeting.* Little Rock, AR, July 2006.
- **Trowbridge CA.** "NATABOC exam preparation" *District II Student Athletic Trainers' Conference.* Buffalo, NY. April 7, 2001.

Poster Presentations

- Marek SM, Fincher AL, **Trowbridge CA**, and Cramer JT. The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *Southwest Athletic Trainers' Association Annual Meeting.* Houston, TX, July 2005.
- Sheridan KL and **Trowbridge CA.** Intramuscular temperature changes: Comparing pulsed shortwave diathermy and moist heat packs. *Southwest Athletic Trainers' Association Annual Meeting.* Houston, TX, July 2005.
- Staurowsky E, Scriber K, Alderman M, Bitting L, Matheny M, **Trowbridge CA.** An analysis of athletic trainers' work lives: A preliminary investigation. *Eastern Athletic Trainers' Annual Meeting.* Boston, MA, January 1997.

Presentations

State

Oral Presentations

- **Trowbridge CA.** "Easy manual therapy techniques" NTATS Annual Symposium. April 10, 2008.
- **Trowbridge CA.** "Careers in athletic training" Ithaca College's Summer College for High School Students. July 4, 2000.
- **Trowbridge CA.** "Functional training for core strengthening" *NYSAAPHERD Annual State Convention*. Syracuse, NY. November 20, 1999.
- **Trowbridge CA.** "Functional anatomy and biomechanics" *Ithaca College and ACSM Health Fitness Instructor Certification Course*. July 19, 1999.
- **Trowbridge CA.** "Exercise for recovery and regeneration." *Ithaca College Symposium for Athletes*. November 1, 1998.
- **Trowbridge CA.** "Prevention and care of common athletic injuries" *Ithaca College and ACSM Health Fitness Instructor Certification Course*. July 20, 1998.
- **Trowbridge CA.** "Core strengthening through resistance training." *Ithaca College Symposium for Athletes*. October 5, 1997.

Poster Presentations

- Stratton J, Garcia N, **Trowbridge CA**, Ray C. The effects of Cryotherapy on the Neuromuscular Component of Balance. *ACES*. The University of Texas at Arlington. March 28, 2008.
- Davis DR, **Trowbridge CA**, and Womochel KS. "The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps." Texas Chapter of American College of Sports Medicine Annual Meeting. Ft. Worth, TX, March 2007.
- Crowder C, **Trowbridge CA**, and Ricard MD The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. Texas Chapter of American College of Sports Medicine Annual Meeting. Ft. Worth, TX, March 2007.
- Sheridan KL and **Trowbridge CA**. Intramuscular temperature changes: Comparing pulsed shortwave diathermy and moist heat packs. Texas Chapter of American College of Sports Medicine Annual Meeting. Irving, TX, March 2005.

Invited Book Reviews

- Skeletal Muscle Structure and Function. (2nd ed.). Selected chapters. Lippincott, Williams, and Wilkins. Spring 2001.
- Hall, CM and Brody, LT. Therapeutic Exercise: Moving Toward Function. Lippincott, Williams, and Wilkins. Spring 2001.
- Bandy, W. (ed) Intervention in Physical Therapy: Therapeutic Exercise for the Active Patient. Lippincott, Williams and Wilkins. Spring 2000.

Invited Book Reviews

- Anderson and Hall. Sports Injury Management, 2nd ed. Williams and Wilkins. Baltimore, MD. Summer and Fall 1998

Grants and Contracts

Funded

Total = \$287,974

Game Ready™ and Cool Systems Inc.

- **Trowbridge CA**, Womochel KS, and Keller D. The effects of continuous circulating water and cyclical compression applied at distal thigh on blood flow mechanics, thigh skin surface temperature, and distal quadriceps intramuscular temperature. August 2008. Funding: **\$57,266.**
- **Trowbridge CA**, Davis DR, Womochel KS, Ricard MD. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. Fall 2006. Funding: **\$11,650.**

The University of Texas at Arlington – Active Learning Grant

- Fincher AL, Krawietz PK, and **Trowbridge CA**. Development and Integration of a Standardized Patient Model to Improve Clinical Decision Making Across the Athletic Training Curriculum. Funding: **\$3455.**

The University of Texas at Arlington – Honors College

- **Undergraduate Research Assistant - URA**
- **Trowbridge CA**, Ricard MD, Sancho R. The effects of 4-week rubber tubing exercise program on subjects with a history of ankle injuries. Summer 2009. Funding: **\$1881**

Laerdal Corporation – Collaborations with School of Nursing

- Cason CL, **Trowbridge CA**, Ricard MD, Mancini ME, Parekh J, and Campbell J. The effect of experience and training on muscular fatigue during cardiopulmonary resuscitation (CPR). Laerdal Corporation. January 2006. Funding: **\$40,289.00.**
- Cason CL, **Trowbridge CA**, Ricard MD, and Bullins A. The effect of audio and visual feedback on muscular fatigue in trained females during cardiopulmonary resuscitation (CPR). Laerdal Corporation. September 2007. Funding: **\$42,000.00.**
- Cason CL, **Trowbridge CA**, Ricard MD, Li, Dongcheng, and Markwa S. Quality of chest compressions when CPR is performed by female healthcare providers on a manikin laying in a hospital patient bed. Laerdal Corporation. September 2008. Funding: **\$48,316.00.**

MedTek - Collaboration with Department of Psychology

- Ricard MD, Gatchel R, **Trowbridge CA**, and Jain M. Reliability and Reproducibility of sEMG data from the Comprehensive Medical Activity Profile (CMAP). Spring 2008-Spring 2009. Funding: **\$24,574.**

NeuroResource Group (NRG)

- **Trowbridge CA**, Ricard MD, Fincher AL. Evidence based use of the InterX™ electrotherapy device on orthopedic conditions. July 2007. Funding: **\$17,250.**

TMI Sports Medicine/UT-Arlington Research Assistant Contract

- Co-directors: **Trowbridge CA**, Fincher AL, Ricard MD, Werner S, Meister K.
- Funding: **\$24,000** Fall 2006 – Spring 2008.

Grants and Contracts

Funded (cont'd)

National Athletic Trainers' Association Research and Education Foundation

- Osternig Master's Grant – Spring 2008
- Funding: **\$998**
- Schorr MJ, **Trowbridge CA**, and Ricard MD. The effects of pulsed shortwave diathermy and stretch on the torque-angle relation of the calf (plantarflexor) muscles associated with passive stretch both during and after treatment.

University of Texas at Arlington

- **Research Enhancement Program Grant. Trowbridge CA.** Short term effects of diathermy and stretch on the torque-angle relation associated with passive stretch and release of the calf (plantarflexor) muscles. Fall/Spring 2005-2006. Funding: **\$9,795.00**

Brigham Young University

- Graduate School Research Fellowship. **Trowbridge CA.** The effect of strength and plyometric training on joint position, joint moments, and muscle stiffness. Fall/Winter/Spring 2003-2004. Funding: **\$6000**

Brigham Young University Graduate School

- Graduate Student Association Research Presentation Award. **Trowbridge CA.** Chronic foot pain in a multisport high school athlete: ATC's treat the cause. Presented at National Athletic Trainers' Association Annual Convention. St. Louis, MO, June 2003. Funding: **\$500**

Ithaca College

- Internal Development Fund Grant. **Trowbridge CA** and Robinson B. Development of Strength and Conditioning in the Exercise and Sport Science Curriculum. November 1996. Funding: **\$700**

Unfunded

Delys Inc.

- Ricard MD, **Trowbridge CA.** The role of muscular preactivation in optimizing joint mechanics during weight acceptance in sport. Submitted to: Delsys Inc. September 29, 2006. Funding: **\$11,500.00.**

Research Enhancement Program - University of Texas at Arlington

- **Trowbridge CA.** The effect of ice application and therapeutic exercise on ankle joint muscle function and kinetics during the single leg drop landing. Funding: **\$9,714.00**

Teaching

University of Texas at Arlington

AY 2009-2010

○ **Fall 2009**

- Musculoskeletal Rehabilitation (formerly Therapeutic Exercise) – KINE 4336 – 3 credits
 - Course content: Principles of therapeutic exercise and specific programs for rehabilitation of athletic injuries.
- Clinical Practicum IV – KINE 4130 – 1 credit (2 contact hours)
 - Course content: Therapeutic exercise techniques for athletic training majors.

AY 2008-2009

○ **Fall 2008**

- Musculoskeletal Rehabilitation – KINE 4336
- Clinical Practicum IV – KINE 4130

○ **Spring 2009**

- Therapeutic Modalities – KINE 3333 – 3 credits
 - Course content: Principles of therapeutic modalities related to the rehabilitation of athletic injuries.
- Clinical Practicum V – KINE 4131 – 1 credit (2 contact hours)
 - Course content: Therapeutic modality techniques for athletic training majors.

○ **Summer 2009**

- Care and Prevention of Athletic Injuries – KINE 2330 – 3 credits
 - Course content: Introduction to injury recognition, prevention, & management. Non-ATEP majors.

AY 2007-2008

○ **Fall 2007**

- Therapeutic Exercise – KINE 4336
- Clinical Practicum IV – KINE 4130

○ **Spring 2008**

- Therapeutic Modalities – KINE 3333
- Clinical Practicum V – KINE 4131
- Upper Extremity Evaluation – KINE 3324 – 3 credits
 - Course content: Principles and techniques of upper extremity injury examination, evaluation, and assessment.

○ **Summer 2008**

- Care and Prevention of Athletic Injuries – KINE 2330

AY 2006-2007

○ **Fall 2006**

- Therapeutic Exercise – KINE 4336
- Introduction to Athletic Training - KINE 2320 – 3 credits
 - Course content: Introduction to the profession of athletic training, injury prevention, & injury management. ATEP majors only.
- Clinical Practicum IV – KINE 4130

○ **Spring 2007**

- Therapeutic Modalities – KINE 4336
- Clinical Practicum V – KINE 4131
- Upper Extremity Evaluation – KINE 3324

Teaching

University of Texas at Arlington

AY 2005-2006

- **Fall 2005**
 - Therapeutic Exercise – KINE 4336
 - Introduction to Athletic Training – KINE 2320
 - Clinical Practicum IV – KINE 4130
- **Spring 2006**
 - Therapeutic Modalities – KINE 3333
 - Clinical Practicum V – KINE 4131
- **Summer 2006**
 - Applied Kinesiology – KINE 3300
 - Course content: Presentation of the nomenclature and function of the musculoskeletal system.

AY 2004-2005

- **Fall 2004**
 - Therapeutic Exercise - KINE 4336
 - Introduction to Athletic Training - KINE 2320
 - Clinical Practicum IV – KINE 4130
- **Spring 2005**
 - Therapeutic Modalities – KINE 3333
 - Clinical Practicum V – KINE 4131
 - Upper Extremity Evaluation – KINE 3324

Teaching

Brigham Young University

AY 2003-2004

- **Fall 2003**
 - Athletic Training Practicum – 1 contact hour
 - Clinical proficiency review
 - Basic Athletic Training – 3 credits
 - Course content: Introduction to injury recognition, prevention, & management.
 - Physical Education Classes - Tennis
- **Spring 2004**
 - Basic Athletic Training
 - Athletic Training Lab – 2 contact hours
 - Course content: Taping, wrapping, and evaluation techniques in sports medicine.
 - Physical Education Classes – Golf

AY 2002-2003

- **Fall 2002**
 - Athletic Training Practicum
 - Athletic Training Lab
- **Spring 2003**
 - Athletic Training Lab
 - Athletic Training Practicum
 - Physical Education Classes - Tennis and Golf

Teaching

Brigham Young University

AY 2001-2002

- **Fall 2001**
 - Athletic Training Lab
 - Physical Education Classes - Swimming, Tennis, and Badminton
- **Spring 2002**
 - Basic Athletic Training
 - Athletic Training Lab
 - Physical Education Classes - Swimming, Tennis, and Badminton
- **Summer 2002**
 - Physical Education Class -Tennis

Ithaca College

AY 2000-2001

- **Fall 2000**
 - Athletic Training Techniques I – 2 contact hours
 - Course content: Taping and wrapping techniques for athletic training majors.
 - Human Anatomy Laboratory – 2 contact hours
 - Course Content: Instruction in the regional approach to human anatomy. Human skeletons, human palpation, and Interactive ADAM used for instruction.
- **Spring 2001**
 - Therapeutic Exercise for Athletic Training – 3 credits
 - Course content: Principles of therapeutic exercise and specific programs for rehabilitation of major athletic injuries.
 - Athletic Training Techniques IV – 2 contact hours
 - Course content: Therapeutic exercise techniques for athletic training majors.

AY 2000-2001

- **Spring 2001 (cont'd)**
 - Application of Strength and Conditioning Principles – 3 credits
 - Course content: Introduction to the building blocks necessary to design, to implement, and to test a sport specific training program.
 - Prevention and Care of Athletic Injuries – 3 credits
 - Course content: Introduction to injury recognition, prevention, & management.

AY 1999-2000

- **Fall 1999**
 - Athletic Training Techniques I
 - Human Anatomy Laboratory
- **Spring 2000**
 - Therapeutic Exercise for Athletic Training
 - Athletic Training Techniques IV
 - Application of Strength and Conditioning Principles
 - Prevention and Care of Athletic Injuries

Teaching

Ithaca College (cont'd)

AY 1998-1999

- **Fall 1998**
 - Athletic Training Techniques I
 - Human Anatomy Laboratory
 - Application of Strength and Conditioning Principles
- **Spring 1999**
 - Prevention and Care of Athletic Injuries
 - Human Anatomy Laboratory

AY 1997-1998

- **Fall 1997**
 - Athletic Training Techniques I
 - Human Anatomy Laboratory
- **Spring 1998**
 - Prevention and Care of Athletic Injuries
 - Human Anatomy Laboratory
- **Summer 1998**
 - Human Anatomy Laboratory

AY 1996-1997

- **Fall 1996**
 - Athletic Training Techniques I
 - Human Anatomy Laboratory
 - Human Anatomy Lecture - Fall 1996 (Co-instructor) – 3 credits
 - Course content: Instruction to present the facts and nomenclature associated with gross anatomy.
- **Spring 1997**
 - Prevention and Care of Athletic Injuries
 - Human Anatomy Laboratory
- **Summer 1997**
 - Human Anatomy Laboratory

AY 1995-1996

- **Fall 1995**
 - Athletic Training Techniques I
 - Human Anatomy Laboratory
- **Spring 1996**
 - Prevention and Care of Athletic Injuries
 - Human Anatomy Laboratory
 - Introduction to Fitness
 - Course content: Introduction to the components of physical fitness.

AY 1994-1995

- **Fall 1994**
 - Athletic Training Techniques I
- **Spring 1995**
 - Prevention and Care of Athletic Injuries

Teaching

Indiana State University

AY 1993-1994

- **Spring 1994**

- Physical Fitness for Majors and Minors
 - Course content: Lectures and labs for an introduction to physical fitness.

Service

National Athletic Trainers' Association

- NATA Research and Education Foundation Board of Directors
 - District 6 Committee Chair – June 2008 – June 2009
 - Scholarship Committee Chair – June 2009 - present
- NATA Fellows Selection Committee – 2007 - 2009
- NATA Pronouncements Committee
 - District 6 representative – 2006 – present.
- NATA Research and Education Foundation
 - State/Regional Representative (TX) – 2005-2008
- NATA Research and Education Foundation Grant Reviewer
 - 2004- 2008
- NATA Research and Education Foundation
 - Abstract Evaluator - Spring 1997, 1998, 1999

Board of Certification

- Board of Certification Exam Transition Steering Committee
 - September 2005 – December 2007
- Board of Certification Exam Development Committee
 - Subcommittee Chair for Written Exam Development Committee
 - August 2004 – December 2007
- Board of Certification Exam Development Committee
 - Written exam development and validation panelist
 - 1998-2004
- BOC Exam Proctor/Model – Dallas, TX, Elmira, NY, & Salt Lake City, UT- 1997-2007

Southwest Athletic Trainers' Association

- SWATA Convention Program Committee – 2006 - present

Texas Department of Health Athletic Trainers' Advisory Committee

- Site Coordinator for Texas Athletic Trainer Licensure Exam – Ft. Worth – 2006 - present
 - Coordinate site for 60 candidates to take written and practical exam
 - December and April each year
- Exam Development Committee – September 2006 – present

National Strength and Conditioning Association

- Exam Development Committee Member – March 2009 – present
- Education Council Member – July 2004 – 2008

Service (cont'd)

United States Olympic Committee

- Paralympics Games 2008
 - Beijing, China – August/September 2008
- USA Women's Bobsled International Training and World Cup Competition
 - Sestriere, Italy, Igls, Austria, and Cortina d'Ampezzo, Italy
 - November 25- December 19, 2005
- USA Women's Bobsled, USA Men's/Women's Skeleton International Training
 - Koenigsee, Germany – December 14-21, 2003
- Winter World University Games
 - Piancavallo, Italy – Jan. 13-26, 2003
 - Figure Skating and Short Track Speed Skating
- USA Women's Bobsled World Cup
 - Park City, UT - Feb. 12-26, 2001
- Volunteer Athletic Trainer – May 2000
 - United States Olympic Training Center - Colorado Springs, CO

University of Texas at Arlington

Department of Kinesiology

- Exercise Science Search Committee – Chair – Fall 2009
- Maverick Student Athletic Trainers' Society (MSATS) Fall 2004 – present - Faculty Advisor
- Exercise Science Search Committee – Fall 2006
- Exercise Physiology Search Committee – Spring 2006
- Pedagogy Search Committee – Chair - Spring 2005
- Graduate Advisory Committee – Fall 2005 - present
- Department Advising Committee – Fall 2004 - 2007
- Faculty Academic Advisor – 2004 – 2007

College of Education

- Committee on Research – Fall 2005 – present
- Awards Committee – Fall 2005 – Spring 2009

University

- Employee Wellness Committee – Fall 2005 – Spring 2006
- Commencement committee – Fall 2006 – Spring 2009

Ithaca College

All College

- Ithaca Today Program – April 1999 and March 2001
 - Faculty Presenter
- Ithaca College Protestant Community – Spring 1999-2001, Fall 1999 & 2000
 - Faculty representative and Co-treasurer. Search committee member.
- Partnership for Teaching Program – Spring 1999, Fall 2000
- Person to Person - Fall 1996-2000, Spring 1997-2000
 - Involved with prospective students and parents during campus visits.
- AIDS Working Group - Fall 1995-99, Spring 1996-2000
 - Co-authored participation policy for athletes with HIV or AIDS.
- Faculty Justice - Fall 1997-2000, Spring 1998 & 1999

Service

Ithaca College (cont'd)

Department of Exercise and Sport Sciences

- Biomechanics Search Committee - Spring 2000
- ESS Curriculum Revision/Exploratory Group - Spring 1999
- Kinesiology Search Committee - Spring 1997
- CAAHEP Reaccreditation Committee - Fall 1996, Spring 1997
- Policies and Procedures Committee - Spring 1995
- Faculty Advisor - 1994 - 2001

School of Health Science and Human Performance

- Curriculum Committee Representative for ESS Dept. – 1997-2001
- Northeast Training Center for Senior Athletes - Co-developer – 1999 – 2000

New York State Athletic Trainers' Association

- Research Grant Committee - 1998-2000
- Empire State Games – Volunteer Sports Medicine Provider
 - Binghamton, NY (July 2000), Rochester, NY (July 1998), Ithaca, NY (August 1995), Syracuse, NY (August 1994)

Indiana State University

- Co-chair Alumni Awards Committee – Department of Athletic Training - 2000 – 2009

Community

- Breast Cancer 3-Day – Sports Medicine Coordinator
 - Dallas/Ft. Worth – November 2009
 - Dallas/Ft. Worth – November 2008
 - Dallas/Ft. Worth – October 2007
 - Dallas/Ft. Worth – October 2006
 - Dallas/Ft. Worth – June 2005
- Paralympics Winter Games - Salt Lake City, UT – March 3-15, 2002
 - Cross country/Biathlon competition venue
- St. Paul's Methodist Church – Finance Committee – Fall 2000, Spring 2001
- Wesley Foundation Board - Spring 1999 - 2001, Fall 1999-2000
- Meal on Wheels – Coordinator/Driver - St. Paul's United Methodist Church – 2000-2001
- Fellowship of Christian Athletes - Ithaca College/Cornell University - 1997-2000
- LPGA Corning Classic Volunteer- May 1996-99

Manuscript Reviewer

- Journal of Athletic Training
- American Journal of Sport Medicine
- Journal of Sports Rehabilitation

Awards and Honors

- Doug Gibbons – Above and Beyond Award
 - North Texas Athletic Trainers' Association
 - April 1009
- Dan Libera Service Award – Board of Certification
 - June 2008
- Graduate Valedictorian Brigham Young University – College of Health and Human Performance
 - August 2004
- Outstanding Professional Graduate Student Award – Brigham Young University
 - March 2004
- Graduate Research Fellowship Award – Brigham Young University
 - Academic year 2003-2004
- National Athletic Trainer's Association Research and Education Foundation
 - Doctoral Scholarship – June 2002
- First runner-up: 1997 Journal of Athletic Training Clint Thompson Award for Outstanding Non-research Manuscript.
 - "A model for a policy on HIV/AIDS in athletics"
- Outstanding Graduate Student Award - 1994
 - Indiana State University
- Member Phi Kappa Phi Honor Society - 1994 – present
 - Charter member of The University of Texas at Arlington Chapter #300
- Highest GPA Kinesiology Department – May 1992
 - University of Colorado at Boulder
- Dean's Scholar - 1989 - 1992
 - University of Colorado at Boulder

Conventions and Symposiums

- National Athletic Trainers' Association Annual Meeting
 - June 1992, 1994-1996, 1998-2009
- Southwest Athletic Trainers' Association Annual Meeting
 - July 2005-2009
- Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke.
 - April 2008
- NATAREF Outcomes Research Symposium
 - May 2007
- Muscle Energy Techniques for the Sacroiliac Joint
 - January 2006
- National Athletic Trainers' Association Education Conference
 - January 2003, 2005, 2007, 2009
- Rocky Mountain Athletic Trainers' Association Annual Meeting and Symposium
 - March 2004
- Southwest American College of Sports Medicine Annual Meeting
 - November 2003
- National Strength and Conditioning Association Annual Convention
 - June/July 1996, 1998, 2002, 2005
- Eastern Athletic Trainers' Association Annual Meeting
 - January 1995-2001
- 1st Annual Upstate New York NSCA Clinic
 - November 1999
- Functional rehabilitation through core stabilization – Sponsored by Perform Better
 - March 1999

Conventions and Symposiums (cont'd)

- American College of Sports Medicine Annual Convention
 - May 1997
- The Complete Athlete with Vern Gambetta
 - April 1997
- Strength Training and Design: New Concepts and Clinical Applications
 - November 1996
- Art of Baseball Injury Management
 - April 1996
- Empire State Games Sports Medicine Symposium
 - August 1994, 1995, 1998, 2000