



Department  
of  
Kinesiology

College of  
Education

The University of  
Texas at Arlington

January 1, 2008

# Research Summary



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**The University of Texas at Arlington  
College of Education  
Department of Kinesiology  
Research Summary  
2006-2007  
January 1, 2008**

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**\*The reference listing style should be as follows: Author(s), Title, *Journal*, Volume: Pages, Year.**

**The University of Texas at Arlington**  
**College of Education**  
**Department of Kinesiology**  
**Research Summary**  
**2006-2007**  
**January 1, 2008**

**I. Refereed journal article publications**

**A. National**

1. Batista, M.A., Tricoli, V.A., Ugrinowitsch, C., Lotufo, R., **Ricard, M.D.** Intermittent exercise as a conditioning activity to induce postactivation potentiation. *Journal of Strength and Conditioning Research* 21: 837-840, 2007.
2. Clifford, P.S., Kluess, H.A., Hamann, J.J., **Buckwalter, J.B.**, Jasperse, J.L. Mechanical compression elicits vasodilation in skeletal muscle vasculature. *Journal of Physiology (London)* 572: 561-567, 2006.
3. Davis, S.L., Shibasaki, M., Low, D.A., Cui, J., **Keller, D.M.**, Purdue, G.F., Hunt, J.L., Arnoldo, B.D., Kowalske, K.J., Crandall, C.G. Cutaneous vasoconstriction during whole-body and local cooling in grafted skin five to nine months postsurgery. *Journal of Burn Care Research* 29: 36-41, 2008.
4. Davis, SL, Shibasaki, M, Low, DA, Cui, J, **Keller, D.M.**, Purdue, GF, Hunt, JL, Arnoldo, BD, Kowalske, KJ, Crandall, CG. Impaired cutaneous vasodilation and sweating in grafted skin during whole body heating. *Journal of Burn Care Research* 28(3): 427-34, 2007.
5. Davis, SL, Shibasaki, M, Low, DA, Cui, J, **Keller, D.M.**, Purdue, GF, Hunt, JL, Arnoldo, BD, Kowalske, KJ, Crandall, CG. Skin grafting impairs postsynaptic cutaneous vasodilator and sweating responses. *Journal of Burn Care Research* 28(3): 435-41, 2007.
6. DeLorey, D.S., J.J. Hamann, Z. Valic, H.A. Kluess, P.S. Clifford, **Buckwalter, J.B.** Alpha-adrenergic receptor responsiveness is preserved during prolonged exercise. *American Journal of Physiology: Heart and Circulatory Physiology* 292: H392-H398, 2007.
7. Epp, T.S., **McDonough, P.**, Padilla, D.J., Gentile, J., Edwards, K.L., Erickson, H.H., Poole, D.C. Exercise-induced pulmonary hemorrhage during submaximal exercise. *Equine Veterinary Journal Supplement* 36: 502-507, 2006.
8. Ferreira, L.F., **McDonough, P.**, Behnke, B.J., Musch, T.I., Poole, D.C. Blood flow and O<sub>2</sub> extraction as a function of O<sub>2</sub> uptake in rat muscles

composed of different fiber type. *Respiratory Physiology & Neurobiology* 153: 237-249, 2006.

9. Fisher J., Ogoh, S, Young, C.N., **Keller, D.M.**, Fadel, P.J. Exercise intensity influences cardiac baroreflex function at the onset of isometric exercise in humans. *Journal of Physiology* 103: 941-947, 2007.
10. Guinn, B., Vincent, V., Dugas, D., Jorgensen, L., **Nelson, L.P.**, Semper, T. Exercise locus of control, behavior, and intention among Mexican-American youth. *Hispanic Journal of Behavioral Sciences* 28: 115-126, 2006.
11. Horvat, M. **Ray, C.**, Nocera, J., Croce, R. Comparison of isokinetic peak force and work parameters in adults with partial vision and total blindness. *Perceptual Motor Skills* 103: 231-237, 2006.
12. Johnson, R.L., Jr., C.C.W. Hsia, **McDonough, P.**, D.M. Dane, J. Fehmel, M. Hurst, H. Wagner and P.D. Wagner. Residence at 3,800m altitude for five months in growing dogs enhances lung diffusing capacity for oxygen that persists at least 2.5 years. *Journal of Applied Physiology* 102: 1448-1455, 2007.
13. Kimura, K, Low, DA, **Keller, D.M.**, Davis, SL, Crandall, CG. Cutaneous blood flow and sweat rate responses to exogenous administration of acetylcholine and methacholine. *Journal of Physiology* 102(5):1856-61, 2007.
14. **Keller, D.M.**, Davis, SL, Low, DA, Shibasaki, M, Raven, PB, Crandall, CG. Carotid baroreceptor stimulation alters cutaneous vascular conductance during whole-body heating. *Journal of Physiology* 15: 577(Pt 3):925-33, 2006.
15. **Keller, D.M.**, Cui J, Davis, SL, Low, DA, Crandall, CG. Heat stress enhances arterial baroreflex control of muscle sympathetic nerve activity via increased sensitivity of burst gating, not burst area, in humans. *Journal of Physiology* 573(Pt 2):445-451, 2006.
16. Kluess, H.A., **Buckwalter, J.B.**, Hamann, J.J., DeLorey, D.S. Clifford, P.S. Frequency and pattern dependence of adrenergic and purinergic vasoconstriction in skeletal muscle arteries. *Experimental Physiology* 91: 1051-1058, 2007.
17. Low, DA, Shibasaki, M, Davis, SL, **Keller, D.M.**, Crandall CG. Does local heating induced nitric oxide production attenuate vasoconstrictor responsiveness to lower body negative pressure in human skin? *Journal of Physiology* 102(5): 1839-43, 2007.
18. Low, DA, Vu, A, Brown, M, Davis, SL, **Keller, D.M.**, Levine, B, Crandall, CG. Temporal thermometry fails to track body core temperature during heat stress in humans. *Medicine and Science in Sports and Exercise* 39(7): 1029-35, 2007.

19. **McDonough, P.**, Jones, A.M., Poole, D.C. Letter to the editor. Effects of nitric oxide synthase inhibition by L-NAME on oxygen uptake kinetics in isolated canine muscle in situ. *Journal of Physiology* 573: 565-566, 2006.
20. **McDonough, P.**, Hsia, C.C.W., Dane, D.M., Yilmaz, C., Johnson, Jr., R.L. High altitude residence during somatic maturation enhances lung function. *Journal of Applied Physiology* 100: 474-480, 2006.
21. **McDonough, P.**, B.J. Behnke, D.J. Padilla, T.I. Musch and D.C. Poole. Control of microvascular oxygen pressures during recovery in rat fast-twitch muscle of differing oxidative capacity. *Experimental Physiology* 92: 731-738, 2007.
22. Miller, M.G., Cheatham, C.C., Porter, A.R., **Ricard, M.D.**, Hennigar, D., Berry, D.C. Chest- and waist-deep aquatic plyometric training and average force, power, and vertical-jump performance. *International Journal of Aquatic Research & Education* 1: 145-155, 2007.
23. Miller, M.G., Herniman, J.J., **Ricard, M.D.**, Cheatham, C.C., Michael, T.J. The effects of a 6-week plyometric training program on agility. *Journal of Sports Science and Medicine* 5: 459-465, 2006.
24. Padilla, D.J., **McDonough, P.**, Behnke, B.J., Kano, Y., Hageman, K.S., Musch, K.I., Poole, D.C. Effects of Type II diabetes on capillary hemodynamics in skeletal muscle. *American Journal of Physiology* 291: H2349-H2444, 2006.
25. Padilla, D.J., Epp, T.S., **McDonough, P.**, Marlin, D.J., Erickson, H.H., Poole, D.C. Effects of a specific endothelin-1<sub>A</sub> antagonist on exercise-induced pulmonary haemorrhage in Thoroughbred horses. *Equine Veterinary Journal Supplement* 36: 198-203, 2006.
26. Padilla, D.J., **McDonough, P.**, Behnke, B.J., Kano, Y., Hageman, K.S., Musch, T.I., Poole, D.C. Effects of Type II diabetes on muscle microvascular oxygen pressures. *Respiratory Physiology & Neurobiology* 156: 187-195, 2007.
27. **Purkayastha, S., Cramer, J.T., Trowbridge, C.A., Fincher, A.L., Marek, S.M.** Surface electromyographic amplitude-to-work ratios during isokinetic and isotonic muscle actions. *Journal of Athletic Training* 41: 314-320, 2006.
28. **Ray, C.**, Horvat, M., Williams, M., and Blasch, B. Kinetic movement analysis and mobility characteristics in adults with vision loss. *Adapted Physical Activity Quarterly* 24: 209-217, 2007.
29. **Ray, C.**, Horvat, M., Williams, M., and Blasch, B. Clinical assessment of functional movement in individuals with visual impairments. *Journal of Visual Impairment and Blindness* 101: 108-113, 2007.
30. **Ricard, M.D.**, Hills-Meyer, P., Miller, M.G., Michael, T.J. The effects of bicycle frame geometry on muscle activation and power during a Wingate anaerobic test. *Journal of Sports Science Medicine* 5: 25-32, 2006.

31. Roth, A.E., Miller, M.G., **Ricard, M.D.**, Ritenour, D., Chapman B.L. Comparisons of static and dynamic balance following training in aquatic and land environments. *Journal of Sport Rehabilitation* 15: 299-311, 2006.
32. Shibasaki, M., Durand, S., Davis, S.L., Cui, J., Low, D.A., **Keller, D.M.**, Crandall, C.G. Endogenous nitric oxide attenuates neutrally-mediated cutaneous vasoconstriction. *Journal of Physiology* [Epub ahead of print], 2007.
33. Shibasaki, M., Davis, S.L., Cui, J., Low, D.A., **Keller, D.M.**, Durand, .S, Crandall, C.G. Neurally mediated vasoconstriction is capable of decreasing skin blood flow during orthostasis in the heat stressed human. *Journal of Physiology* 15: 575 (Pt 3): 953-9, 2006.
34. Ugrinowitsch, C., Tricoli, V., Rodacki, A.L., Batista, M., **Ricard, M.D.** Influence of training background on jumping height. *Journal of Strength and Conditioning Research* 21: 848-852, 2007.
35. Vincent, T.L., Newton, J.R., Deaton, C.M., Franklin, S.H., Biddick, T., McKeever, K., **McDonough, P.**, Young, L.E., Hodgson, D.R., Marlin, D.J. Retrospective study of predictive variables for maximal heart rate (HRmax) in horses undergoing strenuous treadmill exercise. *Equine Veterinary Journal Supplement* 36: 146-152, 2006.
36. Wilson, H.D., Toepfer, V.E., Senapati, A.K., **Wilson, J.R.**, Fuchs, P.N. Hyperbaric oxygen treatment is comparable to acetylsalicylic acid treatment in an animal model of arthritis. *The Journal of Pain* 12: 924-930, 2007.
37. Wilson, H.D., **Wilson, J.R.**, Fuchs P.N. Hyperbaric oxygen treatment decreases inflammation and mechanical hypersensitivity in an animal model of inflammatory pain. *Brain Research* 1098: 126-128, 2006.

#### B. State

## II. Manuscripts Accepted (in press)

#### A. National

1. Epp, T.S, Szladovits, B., Buchannan, A., L., Gates, **McDonough, P.**, Padilla D.J., Smart, J., Poole, D.C., Erickson, H.H. The occurrence and severity of exercise-induced pulmonary hemorrhage in racing Greyhounds. *Equine and Comparative Exercise Physiology*.
2. Garnaat, S.L., Gwinn, J.E., Riley, S.L., Winslow, L.A., Hansborough, M.C., Zielinski, A.L., Gorter, E.L., **Blevins, J.S.**, Sydeman, S.J. Relationship between trait anxiety and health-related factors. *Modern Psychological Studies*.
3. Johnson, R.L., Jr., Hsia C.C.W., **McDonough, P.**, Dane, D.M., Fehmel, J., Hurst, M., Wagner, H., Wagner, P.D. Residence at 3,800m altitude for

five months in growing dogs enhances lung diffusing capacity for oxygen that persists at least 2.5 years. *Journal of Applied Physiology*.

4. Low, DA, Davis, SL, **Keller, D.M.**, Shibasaki, M, Crandall, CG. Cutaneous and hemodynamic responses during hot flashes in symptomatic postmenopausal women. *Menopause*, 2008.
5. **McDonough, P.**, Behnke, B.J., Padilla, D.J., Musch, T.I., Poole, D.C. Control of microvascular oxygen pressures during recovery in fast-twitch muscle of differing oxidative capacity. *Experimental Physiology*.
6. **McDonough, P., Keller, D.M., Buckwalter, J.B.** Capillary recruitment is minimal during exercise. Letter to editor. *Journal of Applied Physiology*.
7. **Nelson, L. P.** A resiliency profile of Hurricane Katrina adolescents: A psychosocial study of disaster. *Canadian Journal of School Psychology*.
8. Padilla, D.J., **McDonough, P.**, Behnke, B.J., Kano, Y., Hageman, K.S., Musch, T.I., Poole, D.C. Effects of Type II diabetes on muscle microvascular oxygen pressures. *Respiratory Physiology & Neurobiology*.
9. Poole, D.C., Jones, A.M., Hughson, R.L., Barstow, T.J., **McDonough, P.** Control of oxygen uptake. *Medicine and Science in Sports and Exercise*.
10. **Ray, C.**, Horvat, M., Croce, R., Mason, R.C. The impact of vision loss on postural stability and balance strategies in individuals with visual impairments. *Gait & Posture*.
11. Wingo, J.E., Low, D.A, **Keller, D.M.** Davis, S.L., Crandall, C.G. Heat acclimation in an adult female with a large surface area of grafted skin. *Journal of Burn Care and Research*.
12. Laurentio, G., Ugrinowitsch, C., Andre, D., Parcell, A.C., **Ricard, M.D.**, Tricoli, V. Effects of high intensity strength training and vascular occlusion on strength gains and muscle hypertrophy. *International Journal of Sports Medicine*.

### **III. Manuscripts Accepted (in revision)**

#### **A. National**

1. **Ptak, A. L.**, Allen, S.A., Kennedy, K.S., Ouk, S., Amano, S., Hill, D.W. VO<sub>2</sub> response profile in heavy intensity cycling after heavy intensity arm or leg exercise. *Applied Physiology, Nutrition and Metabolism*.
2. **Solley T., Ricard M.D., Trowbridge, C.A., Fincher, A.L.** The effect of passive and active warm-up on hamstring musculature passive tension. *Journal of Sport Rehabilitation*.
3. **Yilla, A. B.** A structural model of elite wheelchair basketball

performance. *Adapted Physical Activity Quarterly*.

#### **IV. Manuscripts submitted (in review)**

##### **A. National**

1. **Blevins, J.S.**, Chittenden, T.W., Kaleth, A.S., Gregg, J.M., Zedalis, D., Herbert, W.G. Can polysomnography measures of obstructive sleep apnea severity be evaluated by looking at cardiorespiratory function during exercise. *Sleep Medicine*.
2. **Keller, D.M.**, Low, D.A., Davis, S.L., Kimura, K., Stewart, J. M., Crandall, C.G. Changes in segmental impedance in response to upright tilt during whole-body heat stress in humans. *Experimental Physiology*.
3. **Marek, S.M., Fincher, A.L., Trowbridge, C.A., Cramer, J.T.** The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *Journal of Electromyography and Kinesiology*.
4. **Nelson, L. P.**, Guess, W., Ramos, J., Morris, M. An evaluation of Dancing Classrooms North Texas expansion pilot program. *Journal of Physical Education, Recreation, and Dance*.
5. Nocera, J., Horvat, M. & **Ray, C.** Functional performance in individuals with Parkinson's Disease. *American Journal of Physical Medicine and Rehabilitation*.
6. **Solley T., Ricard M.D., Trowbridge, C.A., Fincher, A.L.** The effect of passive and active warm-up on hamstring musculature passive tension. *Journal of Sport Rehabilitation*.
7. **Ray, C.**, Wolf, S. Intrinsic factors related to fall risk in individuals with vision loss. *Journal of Rehabilitation Research and Development*. Special issue: Fall Risk
8. **Ray, C.**, Wolf, S. Postural instability and physical changes related to profound vision loss and aging. *Archives of Physical Medicine and Rehabilitation*.
9. Theriot, S., **Nelson, L. P.**, Tice, K. Impact of service-learning on pre-service teachers' efficacy: Towards a transformative learning pedagogy. *Journal for Service-Learning Research with Children and Youth*.
10. **Trowbridge, C.A., Ricard M.D.**, Hopkins J.T., Knight K.L., Draper D.O., and Hilton S.C. The effects of strength and plyometric training on joint position and joint moments of the female knee. *Journal of Athletic Training*.
11. **Trowbridge, C.A., Parehk, J., Ricard, M.D.**, Potts, J., Patrickson, C., Cason, C. Kinematic and kinetic changes among female rescuers performing cycles of 30:2 CPR and compression only resuscitation. *American Journal of Critical Care*.

12. **Trowbridge, C.A., Ricard, M.D., Schorr, M.J.** 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*
13. **White, A. N.** The development of the self-efficacy for rhythmic activities scale (SERAS). *Journal of Experimental Child Psychology*.
14. **White, A. N., Worley, T., Smiley, D., & Olazaba, M.** Comparison of body composition, dietary habits, and levels of physical activity in elementary children. *Journal of Teaching in Physical Education*.

## **V. Manuscripts in Preparation**

### **A. National**

1. **Blevins, J.S.,** Bounds, R.G., Armstrong, E., Coast, J.R. Minor changes in lifestyle programming significantly improves health and fitness in fire fighter. *Journal of Occupational Medicine*.
2. **Blevins-McNaughton, J.S. Lueking, S., Raj, J.** Unique cardiopulmonary exercise test responses in overweight middle-aged adults at high-risk for obstructive sleep apnea. *Sleep Medicine*.
3. **Blevins-McNaughton J.S.,** Bounds, R.G., Armstrong, E., Coast, J.R. Minor changes in lifestyle programming significantly improves health and fitness in fire fighters. *Journal of Occupational Medicine*.
4. **Davis, D.R., Trowbridge, C.A, and Womochel, K.S.** The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. *Journal of Athletic Training*.
5. **Fincher, AL, Trowbridge, CT, Ricard, M.** A comparison of intramuscular temperature increases and uniformity of heating produced by Hands-Free Autosound and manual therapeutic ultrasound techniques. *Journal of Athletic Training*.
6. Han, K-M., **Ricard, M.D.,** Schulthies, S.S. Effects of elastic cord exercises upon ankle rehabilitation. *Journal of Sport Rehabilitation*.
7. **Keller, D.M.,** Low, D.A., Davis, S.L., Kimura, K., Hastings, J., Crandall, C.G. Skin surface cooling improves orthostatic tolerance after prolonged head-down bed rest.
8. **Keller, D.M.,** Low, D.A., Davis, S.L., Kimura, K., Hastings, J., Crandall, C.G. Dynamic baroreflex modulation of muscle sympathetic nerve activity before and after prolonged head-down bed rest.
9. **Leuking, S., Blevins-McNaughton, J.S., Raj, S.** Unique cardiopulmonary exercise test responses in overweight middle-aged adults at high-risk for obstructive sleep apnea. *New England Journal of Medicine*.

10. Low, D.A., **Keller, D.M.**, Wingo, J.E., Crandall, C.G. Muscle and skin sympathetic nerve activity responses to whole body heat stress.
11. Low, D.A., **Keller, D.M.**, Kimura, K., Wingo, J.E., Davis, S.L., Crandall, C.G. Cutaneous endothelial dependent and independent vascular responsiveness after prolonged head-down bed rest.
12. **McDonough, P.**, Behnke, B.J., Padilla, D.J., Musch, T.I., Poole, D.C. The relationship between arterial bicarbonate and lactate during incremental exercise in the Thoroughbred horse. *Equine and Comparative Exercise Physiology*.
13. **McDonough, P.**, Poole, D.C., Jones, A.M., Barstow, T.J., Hughson, R.L. Control of oxygen uptake. *Medicine and Science in Sports and Exercise*.
14. **Nelson, L.P., Guess, W., Morris, M., Buckwalter, J.** Assessing the physical activity levels of dancing classrooms using heart-rate monitoring technology. *Research Quarterly for Exercise and Sport*.
15. Nocera, J., Horvat, M., **Ray, C.**, Home-based interventions for increased postural stability and lower body strength in individuals with Parkinson's disease. *Archives of Physical Medicine and Rehabilitation*.
16. **Ptak, A.L.**, Amano, S., Rosenthal, K.J., Maldonado, L.E., King, J.N., Dillow, C.A., Hill, D.W. VO<sub>2</sub> kinetics in heavy intensity upper body and lower body exercise. *Applied Physiology, Nutrition and Metabolism*.
17. **Ptak, A.L.**, Amano, S., Rosenthal, K.J., Hill, D.W. VO<sub>2</sub> kinetics in moderate intensity upper body and lower body exercise. *Applied Physiology, Nutrition and Metabolism*.
18. **Ptak, A.L.**, Allen, S.A., Kennedy, K.S., Ouk, S., Amano, S., Hill, D.W. The effect of prior exercise on VO<sub>2</sub> kinetics in heavy intensity arm exercise. *Applied Physiology, Nutrition and Metabolism*.
19. **Ray, C.** Croce, R., Horvat, M. EMG Analysis of quadricep and hamstring muscle recruitment in visually impaired and sighted matches. *Journal of Electromyography and Kinesiology*.
20. **Trowbridge, C.A., Ricard, M.D., Fincher, A.L., Schorr, M.J.** 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 or Journal of Orthopedic and Sports Physical Therapy*.
21. **Trowbridge, C.A., Schorr, M., Womochel, K., Crowder, C., Turk, M, and Erwin, J.** The effect of subcutaneous adipose on intramuscular temperature during and after pulsed shortwave diathermy. *Journal of Orthopaedic & Sports Physical Therapy*.
22. Ugrinowitsch, C., **Ricard, M.D.**, Parcell, A.C., Hilton, S., Knight, K.L. Effects of distinct rates of force development on peripheral and central fatigue. *Journal of Electromyography and Kinesiology*.

23. **Wilson, J.R.**, Carroll, J.F., Gwartz, P.A., Zenebe, W., Dangelmaier, S.M. Effects of hyperbaric oxygen treatment on vascular reactivity following hindlimb suspension. *Aviation Space and Environmental Medicine*.
24. **Wilson, J.R.**, Prather ID. Fire ants and amputation: benefits of hyperbaric oxygen therapy. *The Journal of Family Practice*.
25. **Wilson, J.R.**, Prather I.D. Frostbite: Mechanisms and treatment. *The Journal of Family Practice*.
26. **Yilla, A. B., Malone, L., Lienert, C.** Validation of the disability sport survey. *Adapted Physical Activity Quarterly*.
27. **Yilla, A. B., Trauernecht, L., Lienert, C.** Collegiate wheelchair basketball and running basketball: A comparison of attitudes of spectators towards disability sport. *Adapted Physical Activity Quarterly*.
28. **Yilla, A. B.**, Crow, M.L., and Gerlach, J.M.. Perceptions of success and survival of female deans in schools of education. *Journal of Women in Educational Leadership*.
29. **Yilla, A. B.** Variables that contribute to success in wheelchair basketball. *Palaestra*.

**B. State**

**VI. Data analysis underway**

1. **Blevins, J.S.** Maximal stress testing and fitness testing. Pantego Fire Department. Spring 2006, Spring 2007.
2. **Blevins, J.S.** Maximal stress testing and fitness testing. UTA Police Department. Summer 2006, Spring 2007.
3. **Blevins, J.S.** The Effects of Weight Loss on Sleep Quality in Borderline Obese Subjects at Risk for the Development of Obstructive Sleep Apnea. UTA – REP grant for the 2006-2007 academic year.
4. Johnson, R.L., Jr., Hsia, C.C.W., **McDonough, P.**, Dane, D.M, Fehmel, J., Hurst, M., Wagner, H., Wagner, P.D. Residence at 3,800m altitude for 1.5 vs. 0.5 years in growing dogs: Impact upon lung diffusing capacity for oxygen.
5. **McDonough, P.**, Hsia, C.C.W., Dane, D.M., Yilmaz, C., Johnson, Jr., R.L. Prolonged high altitude residence (1.5 vs. 0.5 years) during somatic maturation does not provide an additional enhancement to lung function.
6. **Parehk, J.N., Ricard, M.D.**, Cason, C., **Trowbridge, C.A.** Muscle fatigue during CPR administration in middle aged females and young females.

## **VII. Data collection underway**

1. **Blevins, J.S.** Longitudinal health and fitness changes in fire fighters at Highlands Fire Department (collaborative work with Northern Arizona University).
2. **Blevins, J.S.** The effects of weight loss on sleep quality in borderline obese subjects at risk for the development of obstructive sleep apnea. Monies secured from UTA – REP grant for the 2006-2007 Academic year.
3. **Blevins, J.S.** Determining the best occupational health and fitness intervention methods in police and fire fighters by tracking medical and fitness outcomes. Pantego Fire Department, Spring 2008.
4. **Blevins, J.S.** Determining the best occupational health and fitness intervention methods in police and fire fighters by tracking medical and fitness outcomes. UTA Police Department, Spring 2008.
5. **Blevins-McNaughton, J. S., Cason, C., Trowbridge, C.** Shaping-Up: For a healthier lifestyle on and off the job.
6. **Nelson, L. P., McMahon, S.** Building connections: An evaluation of an urban middle-school strategic mentoring intervention program.
7. **Nelson, L. P., Buckwalter, J., Evans, M.** Fitness technology innovations: utilizing wireless heart-rate monitoring technology to measure fitness levels of physical education students in Texas.
8. **Parehk, J.N., Ricard, M.D., Cason, C., Trowbridge, C.A.** Muscle fatigue during CPR administration in middle aged females and young females.
9. **Ray, C.** Analysis of biomechanical movement characteristics during stair and obstacle negotiation in individuals with profound vision loss.
10. **Stader, D., Nelson, L.P.** Pre-service teachers' perceptions of physical education leaders' sexual orientation.
11. **Swier, D., Blevins-McNaughton, J.S.** Comparison of oxygen cost on different brands of elliptical trainers in the development of a metabolic prediction equation.
12. **Taylor, W., Farr K., Wilson, J.R.** Eating disorders in college cheerleaders.
13. **Trowbridge, C.A., Jain, M., Fincher, A.L.** The effects of InterX electrotherapy on pain relief and strength restoration in patients with elbow epicondylitis.
14. **Wilson, J.R., Saxena, A.** Heart rate variability in healthy adults.
15. **Wilson, J.R., Yilla, A., Heddins, B., and Averitte, M.** Energy expenditure of wheelchair basketball players.

## VIII. Refereed Journal Abstracts

### A. Published

1. Allen, S.A., Goodman, S.J., **Ptak, A.L.**, Ouk, S. and Hill, D.W. Effect of exercise mode on maximal accumulated oxygen deficit. *Applied Physiology, Nutrition and Metabolism* 31: S1, 2006.
2. **Blevins, J.S.**, Bounds, R.G., Armstrong, E., Coast, J.R. Health and fitness programming for fire fighters: Does it produce results? *Medicine and Science in Sports and Exercise* 38: S454, 2006.
3. **Crowder, C., Trowbridge, C.A., Ricard, M., Womochel, K.** The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *Journal of Athletic Training*, 42(2): S103, 2007.
4. Cui J, Shibasaki M, Davis SL, Low DA, **Keller DM**, Crandall CG. Heat stress decreases baroreflex sensitivities during muscle metaboreceptor stimulation. *The Federation of American Societies for Experimental Biology*, 2007.
5. Cui J, Shibasaki M, Low DA, **Keller DM**, Davis SL, Crandall CG. Heat stress attenuates increases in arterial blood pressure during a cold pressor test. *Medicine & Science in Sports and Exercise* 39: 5, 2007
6. DeLorey, D.S., J.J. Hamann, Z. Valic, H.A. Kluess, P.S. Clifford, **Buckwalter, J.B.** Endogenous neurotransmitter release and sympathetic vasoconstriction during Prolonged exercise. . *The Federation of American Societies for Experimental Biology* 20(5): a1400, 2006.
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9. Davis SL, Shibasaki M, Cui J, Low DA, **Keller DM**, Chukwumah O, Hunt JL, Purdue GF, Arnoldo BD, Kowalske KJ, Crandall CG. Cutaneous vasodilation and sweating in grafted skin during heat stress 6-9 months and 26-38 months post-surgery. *The Federation of American Societies for Experimental Biology*, 2006.
10. Davis SL, Shibasaki M, Cui J, Low DA, **Keller DM**, Hunt JL, Purdue GF, Arnoldo BD, Kowalske KJ, Crandall CG. Impaired cutaneous vasodilation and sweating in grafted skin during heat stress 6-9 months post-surgery. *American Burn Association*, 2006.

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19. **Keller, D.M.**, Sander, M., Crandall, C.G. The effect of passive leg heating on alpha- adrenergic mediated vasoconstriction in humans. *The Federation of American Societies for Experimental Biology*, 2007.
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21. **Keller, D.M.**, Davis, S.L., Low, D.A., Shibasaki, M., Raven, P.B., Crandall, C.G. Acute carotid baroreceptor unloading causes cutaneous vasoconstriction during whole-body heating. *Medicine & Science in Sports and Exercise* 38: S1424, 2006.

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32. **Ptak, A.L.**, Allen, S.A., Kennedy, K.S., Ouk, S., Amano, S., and Hill, D.W. VO<sub>2</sub> response profile in heavy intensity cycling after heavy intensity arm or leg exercise. *Applied Physiology, Nutrition and Metabolism* 31: S30, 2006.
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35. **Ricard, M.D.**, Ugrinowitsch, Carlos, Hilton, Sterling, Parcell, Allen, Hunter, Iain, Knight, Kenneth, Tricoli, Valmore. Effects of the rate of force development on fatigue onset and location. *Medicine and Science in Sports and Exercise* 38: S443, 2006.
36. Shibasaki, M., Davis, S.L., Low, D.A., **Keller, D.M.**, Cui, J., Crandall, C.G. Endogenous NO decreases cutaneous vasoconstrictor responsiveness during lower-body negative pressure (LBNP) in the heat stressed individual. *The Federation of American Societies for Experimental Biology*, 2007.
37. **Trowbridge, C.A.**, **Ricard, M.D.**, **Schorr, M.J.** 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.
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41. **White, A. N.**, Lirgg, C. D., Denny, G. S., Smith-Nix, A., & Turner, L. W. Supplemental rhythmic activities for elementary age children and the effects on levels of rhythmic self-efficacy. *Research Quarterly for Exercise and Sport* 78, 2007.
42. Wilson, H.D., Toepfer, V.E., Senapati, A.K., **Wilson, J.R.**, Fuchs, P.N. Hyperbaric oxygen treatment decreases edema and mechanical

hypersensitivity in animal models of acute inflammation and arthritis. *Society for Neuroscience*, 2006.

43. **Wilson, J. R., Massey, L., Yilla, A,** Carroll, J.F, **Dangelmaier, S., Dangelmaier, B,** and Zerwekh, J. Hyperbaric oxygen treatment effects on bone during simulated microgravity. *Medicine and Science in Sports and Exercise* 38: S533, 2006.

#### **B. Accepted**

1. Delorey, D.S., **Buckwalter, J.B.,** Middelstadt, S., Kluess, H.A. Adrenergic receptor mediated tonic vasoconstriction is not increased in skeletal muscle of older beagles. *Federation of American Societies for Experimental Biology*.
2. Delorey, D.S., **Buckwalter, J.B.,** Middelstadt, S., Anton, M.M., Kluess, H.A., Tune, J.D., Clifford, P.S. Responsiveness and density of Adrenergic receptors in skeletal muscle of young and old beagles. *Federation of American Societies for Experimental Biology*.
3. **Ray, C.,** Horvat, M. Sensory utilization to maintain postural stability in visually impaired adults. *Research Quarterly for Exercise and Sport*.
4. **Ray, C.,** Horvat, M. Stair and obstacle negotiation in adults with visual impairment. *Research Quarterly for Exercise and Sport*.
5. Nocera, J., Horvat, M., **Ray, C.** Functional task kinetics in Parkinson's Disease. *Research Quarterly for Exercise and Sport*.
6. Williams, M., **Ray, C.,** Horvat, M. Quantifying mobility and activity in adults with vision loss. *Research Quarterly for Exercise and Sport*.
7. **Wilson, J.R. Yilla, A., Heddins, B., Garner, T , Averitte, M.** Assessment of maximal and submaximal aerobic capacity of wheelchair basketball players. *Medicine & Science in Sports and Exercise* 40, 2008.

#### **C. Submitted**

### **IX. Books**

#### **A. Published**

1. O'Connor, D.P., **Fincher, A.L.** *Clinical Pathology for Athletic Trainers*, 2<sup>nd</sup> Edition, SLACK, Inc, Thorofare, NJ, 2008.

#### **B. In Press**

#### **B. Accepted**

#### **C. Revision**

#### **E. Submitted**

## **X. Book chapters**

### **A. Published**

1. Hagood, C.O. & **Wilson, J.R.** *Necrotic Wounds Produced by Spider Bites. Wound Care Practice* (2nd ed.) Best Publishing Company, 2007.
2. **Yilla, A. B.** Enhancing wheelchair sport performance. *Adapted Physical Education and Sport* (4th ed.) Editor J. Winnick, 2006.

### **B. In Press**

### **C. Accepted**

### **D. Revision**

### **E. Submitted**

## **XI. Conference presentations**

### **A. International**

1. Allen, S.A., Goodman, S.J., **Ptak, A.L.**, Ouk, S. and Hill, D.W. Effect of exercise mode on maximal accumulated oxygen deficit. *Canadian Society for Exercise Physiology*, Halifax, Nova Scotia, 2006.
2. Epp, T.S., **McDonough, P.**, Padilla, D.J., Gentile, J.M., Edwards, K.L., Erickson, H.H., Poole, D.C. Exercise-induced pulmonary hemorrhage (EIPH) during sub-maximal exercise. *International Conference on Equine Exercise Physiology*, Fontainebleau, France, 2006.
3. Hill, D.W., Dillow, C.A., Pedini, D.M., Rosenthal, K.J., Ouk, S., **Ptak, A.L.** Modeling the VO<sub>2</sub> response profile in heavy intensity exercise. *Canadian Society for Exercise Physiology*, Halifax, Nova Scotia, 2006.
4. Marlin, D.J., Newton, J.R., Biddick, T., Deaton, C.M., Franklin, S., McKeever, K., **McDonough, P.**, Young, L.E., Hodgson, D. A retrospective study of predictive variables for maximal heart rate (HR<sub>max</sub>) in horses undergoing strenuous treadmill exercise. *International Conference on Equine Exercise Physiology*, Fontainebleau, France, 2006.
5. Padilla, D.J., Epp, T.S., **McDonough, P.**, Marlin, D.J., Erickson, H.H., Poole, D.C. Effects of a specific endothelin-1<sub>A</sub> antagonist on exercise-induced pulmonary hemorrhage in Thoroughbred horses. *International Conference on Equine Exercise Physiology*, Fontainebleau, France, 2006.
6. Pedini, D.M., Allen, S.A., **Ptak, A.L.**, Dillow, C.A., Williamson, J., Goggin, N.L., and Hill, D.W. Use of repeated tests and rolling breath averages affects the precision of quantifying the VO<sub>2</sub> response profile in

moderate intensity cycling. *Canadian Society for Exercise Physiology*, Halifax, Nova Scotia, 2006.

## B. National

1. **Blevins, J.S.**, Bounds, Roger, Armstrong, Eamon, Coast, J.R. Health and Fitness Programming for Fire Fighters: Does it Produce Results? *American College of Sports Medicine Annual Meeting*, Denver, 2006.
2. Brown, S., Parr, G., **Trowbridge, C.A.**, Dale, J., Fandel, D., and Henderson, J. Developing a Multidimensional Technology Based Diagnostic Tool: An Innovative Approach to Certification Examination. (invited lecture) *National Athletic Trainers' Association Annual Meeting*, Atlanta, 2006.
3. **Buckwalter, J.B.** Isoflurane abolishes purinergic receptor mediated restraint of skeletal muscle blood flow. *Experimental Biology: The Federation of American Societies for Experimental Biology*, Washington DC, 2007.
4. **Buckwalter, J.B.** Age-related decline in femoral artery vasoconstriction in sympathetic stimulation. *Experimental Biology: The Federation of American Societies for Experimental Biology*, Washington DC, 2007.
5. **Buckwalter, J.B.** Regulation of skeletal muscle vascular tone by sympathetic co-transmitters. *American College of Sports Medicine Annual Meeting*, Denver, 2006.
6. **Buckwalter, J.B.** Endogenous neurotransmitter release and sympathetic vasoconstriction during prolonged exercise. *Experimental Biology: Federation of American Societies for Experimental Biology*, San Francisco, 2006.
7. **Buckwalter, J.B.** Is the blood flow response to contraction attributable to potassium? *Experimental Biology: Federation of American Societies for Experimental Biology*, San Francisco, 2006.
8. **Buckwalter, J.B.** Heat attenuates vasoconstriction produced by release of endogenous neurotransmitter. *Experimental Biology: Federation of American Societies for Experimental Biology*, San Francisco, 2006.
9. **Crowder, C., Trowbridge, C.A., Ricard, M., and Womochel, K.** The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. *National Athletic Trainer's Association Annual Meeting*, Anaheim, 2007.
10. Delorey, D.S., **Buckwalter, J.B.**, Middelstadt, S., Kluess, H.A. Adrenergic receptor mediated tonic vasoconstriction is not increased in skeletal muscle of older beagles. *Federation of American Societies for Experimental Biology*. San Diego, 2008.
11. Delorey, D.S., **Buckwalter, J.B.**, Middelstadt, S., Anton, M.M., Kluess, H.A., Tune, J.D., Clifford, P.S. Responsiveness and density of

Adrenergic receptors in skeletal muscle of young and old beagles. *Federation of American Societies for Experimental Biology*. San Diego, 2008.

12. Fadel, P.J., Wasmund, S.L., **McDonough, P.**, Smith, M.L., Raven, P.B. Sympathetic nerve activity and ventilation exhibit similar activation patterns during graded arm cycling in humans. *Federation of American Societies for Experimental Biology*, San Francisco, 2006.
13. **Fincher, AL, Trowbridge, CT, Ricard, M.** A comparison of intramuscular temperature increases and uniformity of heating produced by Hands-Free Autosound and manual therapeutic ultrasound techniques. *National Athletic Trainers' Association Annual Meeting and Clinical Symposium*, Anaheim, 2007.
14. Gyorkos, A., Michael, T., Cheatham, C., **Ricard, M.D.** The Effect of Glycemic Index and Timing of Meal on Exercise to Fatigue. *American College of Sports Medicine Annual Meeting*, Denver, 2006.
15. Hill, D.W., Damvar, M.K., **Ptak, A.L.**, Amano, S, Ouk, S., Rosenthal, K.J., Kennedy, K.S, and Allen, S.A. Perceived exertion during running and cycling at the ventilatory threshold. *American College of Sports Medicine Annual Meeting*, Denver, 2006.
16. Johnson, R.L. Jr., **McDonough, P.**, Dane, D.M., Hsia, C.C.W., Wagner, H.E. Wagner, P.D. Functional assessment of lung growth induced by high altitude residence. *American Thoracic Society*, San Diego, 2006.
17. **Keller, D.M.**, Low, D.A., Wingo, J.E., Brothers, R.M., Davis, S.L., Crandall, C.G. Acute volume expansion preserves orthostatic tolerance during whole-body heat stress. *Federation of American Societies for Experimental Biology*, San Diego, 2008.
18. **Keller, D.M.**, Low, D.A., Davis, S.L., Kimura, K., Wingo, J., Crandall, C.G. Skin surface cooling improves orthostatic tolerance after prolonged head down bed rest. *American College of Sports Medicine Annual Meeting*, New Orleans, 2007.
19. **Keller, D.M.**, Sander, M., Crandall, C.G. The effect of passive leg heating on alpha-adrenergic mediated vasoconstriction in humans. *Experimental Biology: The Federation of American Societies for Experimental Biology*, Washington DC, 2007.
20. **Keller, D.M.**, Cui, J., Davis, S.L., Low, D.A., Crandall, C.G. Effects of whole- body heating on arterial baroreflex control of muscle sympathetic nerve activity burst gating and burst area. *Experimental Biology: Federation of American Societies for Experimental Biology*, San Francisco, 2006.
21. **Keller, D.M.**, Davis, S.L., Low, D.A., Shibasaki, M., Raven, P.B., Crandall, C.G. Acute Carotid Baroreceptor Unloading Causes Cutaneous

Vasoconstriction During Whole-Body Heating. *American College of Sports Medicine Annual Meeting*, Denver, 2006.

22. **McDonough, P.** Control of oxygen uptake. *American College of Sports Medicine Conference on Integrative Physiology of Exercise*, Indianapolis, 2006.
23. **Marek, S.M., Fincher, A.L., Trowbridge, C.A., and Cramer, J.T.** The thermal effects of pulsed shortwave diathermy on muscle force production, electromyography, and mechanomyography. *National Athletic Trainer's Association Annual Meeting*, Anaheim, 2007.
24. **Nelson, L. P.** Evaluation of dancing classrooms North Texas expansion pilot program. *American Alliance for Health, Physical Education, Recreation, and Dance Conference*, Fort Worth, 2008.
25. **Nelson, L. P., Theriot, S., & Parsons, C.** Impact of service-learning on preservice teachers' efficacy: towards a transformative learning pedagogy. *National Middle School Association Conference*, Houston, 2007.
26. **Nelson, L. P.** Measurement and evaluation summary for dancing classrooms North Texas research pilot. *American Ballroom Theatre-Dinner Dance Gala*, New York, 2007.
27. **Nocera, J., Horvat, M., & Ray, C.** Functional task kinetics in Parkinson's Disease. *American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting*, Fort Worth, 2008.
28. **Ray, C., Horvat, M.** Sensory utilization to maintain postural stability in visually impaired adults. *American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting*, Fort Worth, 2008.
29. **Ray, C., Horvat, M.** Stair and obstacle negotiation in adults with visual impairment. *American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting*, Fort Worth, 2008.
30. **Ricard, M.D., Ugrinowitsch, Carlos, Hilton, Sterling, Parcell, Allen, Hunter, Iain, Knight, Kenneth, Tricoli, Valmore.** Effects of the rate of force development on fatigue onset and location. *American College of Sports Medicine Annual Meeting*, Denver, 2006.
31. **Trowbridge, C.A., Ricard, M.D., Schorr, M.J.** 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 Trainer's Association Annual Meeting*, Anaheim, 2007.
32. **Trowbridge, C.A., Ricard, M.D., Knight, KL, Hopkins, JT, Draper ,DO.** The effects of strength and plyometric training on joint position and joint moments of the female knee. *Anterior Cruciate Ligament Research Retreat III*. Lexington, KY, 2006.

33. Ugrinowitsch, C., Tricoli, V., Batista, M., Rodacki, A., **Ricard, M.D.** Influence of training background on jumping height. *American College of Sports Medicine Annual Meeting*, Denver, 2006.
34. Williams, M., **Ray, C.**, Horvat, M. Quantifying mobility and activity in adults with vision loss. *American Alliance for Health, Physical Education, Recreation and Dance Annual Meeting*, Fort Worth, 2008.
35. Williams, M., **Ray, C.**, Blasch, B. Examining objective mobility outcomes. *Association Education Rehabilitation for the Blind and Visually Impaired*, Chicago, 2008.
36. **Wilson, J.R. Yilla, A., Heddins, B., Garner, T , Averitte, M.** Assessment of maximal and submaximal aerobic capacity of wheelchair basketball players. *American College of Sports Medicine Annual meeting*, Indianapolis, 2008.
37. Wilson, H.D., Toepfer, V.E., Senapati, A.K., **Wilson, J.R.**, Fuchs, P.N. Hyperbaric oxygen treatment decreases edema and mechanical hypersensitivity in animal models of acute inflammation and arthritis. *Society for Neuroscience*, Atlanta, 2006.
38. **Wilson, J. R., Massey, L., Yilla, A,** Carroll, J.F, **Dangelmaier, S., Dangelmaier, B,** and Zerwekh, J. Hyperbaric oxygen treatment effects on bone during simulated microgravity. *American College of Sports Medicine Annual Meeting*, Denver, 2006.

### C. Regional

1. **Crowder, C.,Trowbridge, C.A.,** The effect of subcutaneous adipose on intramuscular temperature during and after pulsed shortwave diathermy. *Southwest Athletic Trainers' Association Annual Meeting*, Little Rock, 2006.
2. **Fulton, D., Schorr, M., Blevins, J.** A comparison between the Sensormedics and Parvomedics in a submaximal bike test. *Texas Chapter of the American College of Sports Medicine Annual Meeting*, Denton, 2006.
3. **Lueking S., Blevins J.** Can a portable sleep device aid in detecting the risk for a sleep disorder and abnormal daytime resting and exercise cardiovascular responses? *Texas Chapter of the American College of Sports Medicine Annual Meeting*, Fort Worth, 2007.
4. **Saxena, A., Heddins, B., Blevins, J.** Do different indices of coronary heart disease risk prediction scores predict the same risk level in firefighters? *Texas Chapter of the American College of Sports Medicine Annual Meeting*, Fort Worth, 2007.
5. **Schorr M., Trowbridge C.A., Ricard, M.D.** 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, 2006.

6. **Trowbridge, C.A.** Acromioclavicular Rehabilitation. *Dallas Fort Worth Sports Medicine Symposium*, 2007.

#### D. State

1. **Buckwalter, J.B.** Skeletal muscle blood flow during exercise. University of Arkansas, Fayetteville, AR, 2006.
2. **Nelson, L. P.** Dancing Classrooms pilot research results. *Hurst Euless Bedford ISD - Annual Board of Trustees Meeting*, Hurst, TX, 2007.
3. **Nelson, L. P., White, A., Foglesong, M., Bostick, M.** Reliability measures of the resiliency scales for adolescents on hurricane Katrina evacuee high school students. *Texas Association of Health, Physical Education, Recreation, and Dance Conference*, Ft. Worth, 2006.
4. **Trowbridge, C.A.** Concussion Update. *Ben Hogan Sports Medicine Symposium*, 2007.
5. **White, A.N., Bailey, J., Rodriguez, A., & Thomas, D.** Impact of a physically active after-school program on levels of physical fitness in elementary children. *Texas Alliance for Health Physical Education Recreation and Dance Convention*, Fort Worth, 2006.

#### F. University

1. Thompson, C.D., **Wilson, J.**, Uhelski, M. L., Fuchs, P.N. Hyperbaric Oxygen Treatment decreases neuropathic pain. *Annual Celebration of Excellence by Students*, The University of Texas at Arlington, 2008.

## XII. Grant activity

#### A. External Submitted

1. **Blevins, J.S.** Impact of occupational health and fitness programing on physical activity and medical outcomes in the Pantego Fire Department. 2006-2007, **\$2,750.00.**
2. **Buckwalter, J.** Regulation of Blood Flow to Exercising Skeletal Muscles. 2003- 2007, **\$925,000.00.**
3. Cason, C.L., **Trowbridge, C.A., Ricard, M.D., Mancini, M.E., Parekh, J., Campbell, J.C., Womochell, K.** Fatigue during CPR. Laerdal and the American Heart Association. 2007, **\$31,290.00.**
4. **Keller, D.M., Levine, B.D., Crandall, C.G.** Thermoregulatory Capacity and Exercise Responses Following Prolonged Lunar Analog Bed Rest. National Aeronautics and Space Administration. 2008-2011, **\$1,557,509.00.**
5. **Keller, D.M., Buckwalter, J. B.** Arterial baroreflex function in African Americans at rest and during exercise. American Heart Association. **\$308,000.00.**

6. **Trowbridge C.A., Ricard M.D., Fincher A.L.** Evidence based use of the InterX™ electrotherapy device on orthopedic conditions. NeuroResource Group (NRG). **\$17,250.00.**
7. **Trowbridge C.A., Ricard M.D.** Reliability and Reproducibility of sEMG data from the Comprehensive Medical Activity Profile (CMAP). MedTek. **\$24,574.00.**
8. **Wilson, J.R.** Hyperbaric oxygen therapy in the treatment of diabetes and stroke. Lowdon Family Foundation. 2005-2008, **\$75,000.00.**

**B. External Funded**

1. Blasch, B., Williams, M., **Ray, C.** Mobility Outcomes of the Rehabilitation of the Visually Impaired. VA Merit Review. March 2005 – March 2008, **\$811,500.00.**
2. Cason, C.L., **Trowbridge, C.A., Ricard, M.D., Mancini, M.E., Parekh, J., Campbell, J.C., Womochell, K.** Fatigue during CPR. Laerdal and the American Heart Association. 2007, **\$40,289.00.**
3. Davis, S.L., **Keller, D.M.** Baroreflex Modulation of Sympathetic Nerve Activity in MS Patients. National Multiple Sclerosis Society, 2007, **\$43,600.00.**
4. **Nelson, L. P.,** Anderson, M. Building Connections: A Middle-School Strategic Intervention Mentoring Project Evaluation. Capital One Bank. 2006-2007, **\$28,800.00.**
5. **Ray, C.** Strength Characteristics & Physical Functioning in Individuals with VI. VA Career Development Program (CDA-2). August 2008 – August 2011, **\$396,912.00.**
6. **Ray, C.** Rehabilitation R&D Center Physical Performance and Function Research Program. VA Central Office; AIA. March 2005 – August 2008, **\$142,408.00.**
7. **Ray, C.** Analysis of Biomechanical Movement Characteristics, Divided Attention and Physiological Components of Mobility in Individuals with Visual Impairment. Atlanta VA Medical Center Pilot. December 2005 – December 2007, **\$21,250.00.**
8. Ross, J., **Nelson, L. P.,** Anderson, M., Madigan, T., Steele, M., Bolden, R. Building Connections: A Middle-School Strategic Intervention Mentoring Project. Sid W. Richardson Foundation, Fort Worth, TX. & Capital One Bank, Dallas, TX. 2007-2009, **\$160,500.00.**
9. Ross, J., **Nelson, L. P.,** Guess-Hall, W., and Mathis, D. Dancing Classrooms: A Learning-in-Motion Initiative Grant was used to pilot and sustain Pierre Dulain's "Mad-Hot Ballroom Dancing Program" in the Fort Worth and HEB schools with 5<sup>th</sup> grade physical education students. Amon G. Carter Foundation. 2006, **\$67,536.00.**

10. **Schorr, M.J., Trowbridge, C.A., Ricard, M.D.** 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. NATA Research & Education Foundation. 2007, **\$998.15.**
11. **Trowbridge C.A., Ricard M.D., Fincher A.L.** Evidence based use of the InterX™ electrotherapy device on orthopedic conditions. NeuroResource Group (NRG). **\$17,250.00.**
12. **Cason, C.L., Trowbridge, C.A., Ricard, M.D., Mancini, M.E., Parekh, J., Campbell, J.C., Womochell, K.** Fatigue during CPR. Laerdal and the American Heart Association. 2007, **\$40,289.00.**

**C. External Unfunded**

1. **Blasch, B., Ray, C.** Evaluation of Tele-Rehabilitation in Providing Orientation and Mobility. VA Merit Review. 2006, **\$747,850.00.**
2. **Nelson, L.P.** Earth In Mind: Outdoor leadership and environmental education grant, TXU-Environmental Education Summer Institute, currently in preparation. **\$21,465.00.**
3. **Ray, C.** Retrospective Analysis of Chronic Disease and Premature Mortality. VA Merit Review. 2006, **\$100,000.00.**
4. **Ricard, M.D., Trowbridge, C.T.** The role of muscular preactivation in optimizing joint mechanics during weight acceptance in sport. Delsys, Inc. 2006, **\$11,500.00.**
5. **Wilson, J.R.** UTA-UNTHSC@FW Joint Seed Project Program. 2005, **\$9,341.00.**

**D. Internal Submitted**

1. **Keller, D.M.** Baroreflex control of blood pressure in African Americans. The University of Texas at Arlington Research Enhancement Program, **\$10,000.00.**

**E. Internal Funded**

1. **Blevins, J.S.** The effects of weight loss on sleep quality and quantity in borderline obese subjects at risk for the development of obstructive sleep apnea. UTA Research Enhancement Program. 2006, **\$9,975.00.**
2. **Blevins, J.S.** Weight Management Series: Shaping Up. UT Arlington Campus Recreation. 2007-2009, Graduate Assistantships-**\$18,000.00.**
3. **Blevins, J.S.** Weight Management Series: Shaping Up. UT Arlington Campus Recreation. 2007-2009, Exercise Science Research Laboratories-**\$3,000.00/ year.**
4. **Nelson, L. P.** Outdoor Education Service-Learning Course Development Seed Grant. Center for Community Service Learning at the University of Texas at Arlington. 2006, **\$400.00.**

5. **Nelson, L.P.** Fitness Technology Innovations. UTA Research Enhancement Program. 2007, **\$10,000.00**

**F. Internal Unfunded**

1. **Nelson, L.P.** From life to leadership: Youth resiliency project. 2006, **\$9,616.00.**
2. **White, A.N.** Determining the internal consistency of Harter's perceived competence scale in Spanish for ESL students. UTA Research Enhancement Program Grant. 2006, **\$3,824.80.**
3. **Ricard, M. D.** Effects of age on dynamic stability during the transition from stair descent to level walking. UTA: Research Enhancement Program Grant. 2006, **\$9,179.49.**
4. **Trowbridge, C.A.** The effect of ice application and therapeutic exercise on ankle joint muscle function and kinetics during the single leg drop landing. Research Enhancement Program - University of Texas at Arlington. **\$9,714.00.**

### **XIII. Contracts**

**A. Accepted**

1. **Blevins, J.S.** Physical exams and physical fitness testing of volunteer and staff UTA Police Department. UTA Police Department. 2007, **\$4,500.00.**
2. **Blevins, J.S.** Physical exams and physical fitness testing of volunteer and staff Pantego Fire Department. Pantego Fire Department. 2007, **\$2,500.00.**
3. **Blevins, J.S.** Fall into Shape: UTA Faculty Staff Weight Loss Program. *Funding Agency:* Joint Project with Campus Recreation Department. Sept 2007 – May 2009, **\$11,175.00** per year with a funded GRA.
4. **Blevins, J.S.** Shaping-Up: For a healthier lifestyle on and off the job *Funding Agency:* Human Resources. January, **\$3,000.00.**
5. **Blevins, J.S.** Physical exams and physical fitness testing of volunteer and staff Pantego Fire Department. *Funding Agency:* Pantego Fire Department. April 2006, March 2007, March 2008, **\$2,500.00.**
6. **Nelson, L. P.** Dancing Classrooms North Texas Pilot Program Research Piece Amon G. Carter Foundation, Fort Worth. 2006, **\$5,000.00.**
7. **Trowbridge, C.A., Davis, D.R., Ricard, M.D., and Fincher, A.L.** The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. Game Ready™. 2006, **\$9,985.00.**
8. Williams, M., **Ray, C.** Sensory Substitution Systems for Blind Mobility. Brainport. July 2007 – July 2008, **\$100,000.00.**

## **B. Submitted**

1. **Blevins, J.S.** Physical exams and physical fitness testing of volunteer and staff UTA Police Department. *Funding Agency:* UTA Police Department. April 2008, **\$4,500.00.**
2. **Blevins, J.S.** Fall into Shape: UTA Faculty Staff Weight Loss Program. *Funding Agency:* Joint Project with Campus Recreation. February 2007, **\$4,000.00.**
3. **Blevins, J.S., Heddins, P.B., Trowbridge, C.A., Ricard, M.D., Fincher, A.L.** Physical exams and health and fitness testing of City of Arlington Police and Fire: RFP 07-0161. City of Arlington. 2007, **\$200,000.00.**

## **XIV. Master of Science Theses**

### **A. Completed**

1. **Campbell, J.C., Trowbridge, C.T., Blevins, J., Ricard, M.D.** Effects of concentric and eccentric contractions of the knee extensors on mechanical work, lactate concentration and EMG, 2007.
2. **Lueking, S., Blevins, J.S., Raj, J., Ricard, M.** Can a screening algorithm for obstructive sleep apnea be formulated from maximal exercise test variables? 2007.
3. **Parehk, J.N., Ricard, M.D., Cason, C., Trowbridge, C.A.** Muscle fatigue during CPR administration in middle aged females and young females, 2007.
4. **Putman, D. Wilson, J., Blevins, J., Ricard, M.** The effects of bench height and step cadence in aerobic step dance on force impact and metabolic cost, 2007.
5. **Schorr, M.J., Trowbridge, C.T., Fincher, A.L., Ricard, M.D.** 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, 2007.
6. **Solley, T., Ricard, M., Trowbridge, C.T., Fincher, A.L.** Effect of active and passive warm-up on hamstring passive tension, 2006.

### **B. In Progress**

1. **Bellamkonda, P., Trowbridge, C.T., Ables, A., Ricard, M.** The effects of plyometric training on muscular preactivation, 2006.
2. **McGavern, A.L., Werner, S.L., Trowbridge, C.T., Ricard, M.D.** Ground reaction forces in female ACL reconstructed athletes, 2008.
3. **Swier, D., Blevins, J.S., Ray, C.T., Ricard, M.D.** Comparison of oxygen cost on different brands of elliptical trainers in the development of a metabolic prediction equation, 2008.

## **XV. Master of Science Manuscripts**

### **A. Completed**

### **B. In Progress**

- 1. Adamus, H., Burns, R., McDonough, P.** The effects of dietary creatine monohydrate supplementation upon recovery VO<sub>2</sub> kinetics, 2008.
- 2. Burns, R. McDonough, P.** VO<sub>2</sub> kinetics during exercise recovery in diabetic subjects, 2008.
- 3. McGavern, A.L., Werner, S.L., Trowbridge, C.T., Ricard, M.D.** Ground reaction forces in female ACL reconstructed athletes, 2008.
- 4. Newhart, S., Ray, C.T., Ricard, M.D.** The effect of different contraction velocities on reaction time, strength and power, 2008.
- 5. Saxena, A., Wilson, J.R., Keller, D.M.** Validation of noninvasive determination of cardiac output by acetylene rebreathing and finometer.
- 6. McKinney L, Blevins JS.** Shaping up for a healthier lifestyle on and off the job.