



THE UNIVERSITY OF TEXAS AT ARLINGTON

College of Nursing and Health Innovation

Curriculum Vitae
November 1, 2019

Mark D. Ricard
Kinesiology Department

Education

Ph.D. Education (Biomechanics), Southern Illinois University, 1986

Dissertation: A biomechanical analysis of mechanical energy and angular momentum in the front handspring 1 ½ salto vault. Advisor: [Joseph Hamill](#).

M.A.T. Physical Education, Southeast Missouri State University, 1982

Master's Thesis: A biomechanical analysis of side horse vaulting. Advisor: Ronald F. Kirby.

B.S. Physical Education, University of Vermont, 1978

Employment

The University of Texas at Arlington, Professor, Kinesiology Department, Fall 2005 – Present.

Position Description: Teach graduate and undergraduate courses. Serve as [Graduate Program Advisor](#). Advise graduate students. Direct [Biomechanics Laboratory](#). Direct master's theses. Conduct, publish and present independent research. Serve on department, college and university committees.

Western Michigan University, Associate Professor, Health Physical Education and Recreation

Department, Fall 2002 – Summer 2005. Position Description: Teach undergraduate and graduate courses in biomechanics. Advise graduate students. Direct master's theses. Conduct, publish and present independent research in biomechanics. Biomechanics Laboratory: assist faculty colleagues with the collection and analysis of biomechanical data. Serve on department, college and university committees.

Brigham Young University, Associate Professor, Physical Education Department, Fall, 1994 to Fall

2002. Tenured: Fall, 2000. Position Description: Teach undergraduate and graduate courses in Biomechanics. Direct [Human Performance Research Center](#). Direct [Biomechanics Laboratory](#). Advise graduate students. Direct master's theses and doctoral dissertations. Conduct, publish and present independent research in Biomechanics. Assist faculty colleagues with the collection and analysis of Biomechanical data. Serve on department, college and university committees.

Illinois State University, Assistant Professor, Health, Physical Education, Recreation and Dance

Department, Fall, 1986 to Spring 1994. Tenured: Fall, 1992. Position Description: Teach undergraduate and graduate courses in Biomechanics, Statistics, Research Methods and Activity Courses. Advise graduate students. Direct master's theses. Conduct, publish and



present independent research in Biomechanics. Biomechanics Laboratory Director: assist faculty colleagues with the collection and analysis of Biomechanical data. Serve on department, college and university committees.

Southern Illinois University, Graduate Research Assistant, Biomechanics Laboratory, 1984 - 1986. Position Description: Teach undergraduate activity courses. Conduct, publish and present research for Southern Illinois University Biomechanics Laboratory.

University of Maryland, Graduate Teaching Assistant, Physical Education Department, 1982 - 1984. Position Description: Teach undergraduate activity courses. Advisor: Dr. Andrew Dainis.

Southeast Missouri State University, Graduate Teaching Assistant, Physical Education Department, 1980 - 1982. Position Description: Teach undergraduate activity courses, assistant coach women's gymnastics team.

Sanford High School, Health/Physical Education Teacher, Physical Education, Sanford, ME, 1978 - 1980. Position Description: Teach 9th grade Health and grades 9-12 Physical Education, coach men's and women's gymnastics and track and field.

Research and Creative Activities

Research Focus

The focus of my research is to improve human health by investigating the effects of joint moments and forces acting on the human body and how joint moments and forces can be modified to minimize the likelihood of injury or induce positive health outcomes.

Research Awards

Ricard MD (1998). Research Recognition Award. National Athletic Trainers' Association NATA, June 19, 1998.

Butterfield DL, Draper DO, Ricard MD, Durrant E, Myrer JW, Schulthies SS. (1997). The effects of high-volt pulsed current electrical stimulation on delayed onset muscle soreness. Journal of Athletic Training. 32(1), 15-20. Journal of Athletic Training Second Runner up for Outstanding Research Manuscript, 1998 NATA Meeting.

Draper DO, Ricard MD (1995). Rate of temperature decay in human muscle following 3 MHz ultrasound: The stretching window revealed. Journal of Athletic Training. 30(4), 304-307. Journal of Athletic Training Outstanding Research Manuscript, 1996 NATA Meeting.

Research Collaboration

[Center of Excellence for the Study of Health and Chronic Illness](#), Advisory Board.

UTA – UT Southwestern Biomedical Engineering Joint Graduate Studies Committee, member.



Peer Reviewed Publications

48. Prejean BJ, Ricard MD. [A quantification of lower-limb coordinative variability during running with different levels of midsole cushioning](#). *Footwear Science*, 2019, 11(2): 93-104 doi:[10.1080/19424280.2019.1593515](#).
47. Pruma FA, Imrhan S, Ricard MD. [Quantifying finger strain in video gaming](#). *Int J Ergonomics*, 2018, 8(1): 19-35.
46. Cervenka JJ, Decker M, Ricard MD, Beaty J & Ruhde L. [Strength and stability analysis of rehabilitated anterior cruciate ligament](#). *Int J Exer Sci*, 2018, 11:817-826.
45. Caçola P, Ibane M, Ricard MD, Gabbard C. [Children with developmental coordination disorder demonstrate a spatial mismatch when estimating coincident-timing ability with tools](#), *Research in Developmental Disabilities*, 2016, 48:124-131 doi: [10.1016/j.ridd.2015.10.021](#).
44. Tommerdahl JM, McKee W, Nesbitt M, Ricard MD, Biggan JR, Ray CT, & Gatchel RJ. [Do deductive and probabilistic reasoning abilities decline in older adults?](#) *J Appl Biobehav Res*, 2016, 21(4): 225-236 doi: [10.1111/jabr.12056](#).
43. Hoefler R, Black B, Ricard MD. [The impact of state policy on teen dating violence prevalence](#). *Journal of Adolescence*, 2015, 44:88-96 doi: [10.1016/j.adolescence.2015.07.006](#)
42. Biggan JR, Melton F, Horvat MA, Ricard MD, Keller D, & Ray, CT. [Increased load computerized dynamic posturography in pre-frail and non-frail community dwelling older adults](#). *Journal of Aging & Physical Activity*, 2014, 22(1), 96-102.
41. Cason CL, Trowbridge CT, Baxley SM, Ricard MD. [A counterbalanced cross-over study of the effects of visual, auditory and no feedback on performance measures in a simulated cardiopulmonary resuscitation](#). *BMC Nursing*, 2011, 10:15 doi:10.1186/1472-6955-10-15.
40. Han KM, Ricard MD. [Effects of 4 weeks of elastic-resistance training on ankle-evertor strength and latency](#). *J Sports Rehab*, 2011, 20(2): 157-173 doi: [10.1123/jsr.20.2.157](#).
39. Gatchel RJ, Ricard MD, Dougall A, Jain M, Ghosh S. [The Comprehensive Muscular Activity Profile \(CMAP\): Its clinical utility in objectively differentiating between low back patients and normals](#). *J Appl Biobehav Res*, 2011, 15(4): 175-186 DOI: [10.1111/j.1751-9861.2011.00060.x](#).
38. Li Dongcheng, Ricard Mark D. [Sports Injuries & Acupuncture](#). *Oriental Medicine Journal*, 2011, 19(5): 1-4.
37. Trowbridge CT, Parekh JN, Ricard MD, Potts J, Patrickson WC, Cason CL. [A randomized cross-over study of the quality of cardiopulmonary resuscitation among females performing 30:2 and hands-only cardiopulmonary resuscitation](#). *BMC Nursing*. 2009, 8(6) DOI: 10.1186/1472-6955-8-6.
36. Han KM, Ricard MD, Fellingham GW. [Effects of a 4-week exercise program on balance using elastic tubing as a perturbation force for individuals with a history of ankle sprains](#). *J Orthop Sports Phys Ther*. 2009, 39(4): 246-255.
35. Gatchel RJ, Ricard MD, Brede E, Howard KJ. [Evaluating function/impairment of low back pain using SEMG](#). *Practical Pain Management*. 2009, 9(2): 31-35.
34. Gatchel RJ, Ricard MD, Choksi DN, Jain M, Howard K. [The comprehensive muscular activity profile \(CMAP\): Its high sensitivity, specificity and overall classification rate for detecting submaximal effort on functional capacity testing](#). *J Occup Rehabil*. 2009, 19(1): 49-55, DOI: [10.1007/s10926-008-9156-x](#).



33. Laurentio G, Ugrinowitsch C, Aihara AY, Fernades AR, Parcell AC, Ricard MD, Tricoli V. [Effects of strength training and vascular occlusion](#). *Int J Sports Med*. 2008; 29: 664-669 DOI: [10.1055/s-2007-989405](#).
32. Miller MG, Cheatham CC, Porter AR, Ricard MD, Hennigar D, Berry DC. [Chest- and waist-deep aquatic plyometric training and average force, power, and vertical-jump performance](#). *Int J Aquatic Research & Education*. 2007; 1: 145-155.
31. Ugrinowitsch C, Tricoli V, Rodacki AL, Batista M, Ricard MD. [Influence of training background on jumping height](#). *J Strength Cond Res*. 2007; 21: 848-852.
30. Batista MA, Tricoli VA, Ugrinowitsch C, Lotufo R, Ricard MD. [Intermittent exercise as a conditioning activity to induce postactivation potentiation](#). *J Strength Cond Res*. 2007; 21(3): 837-840.
29. Ricard MD, Hills-Meyer P, Miller MG, Michael TJ. [The effects of bicycle frame geometry on muscle activation and power during a Wingate anaerobic test](#). *J Sports Sci Med*. 2006; 5: 25-32.
28. Roth AE, Miller MG, Ricard MD, Ritenour D, Chapman BL. [Comparisons of static and dynamic balance following training in aquatic and land environments](#). *J Sport Rehabil*. 2006;15(4): 299-311.
27. Miller MG, Herniman JJ, Ricard MD, Cheatham CC, Michael TJ. [The effects of a 6-week plyometric training program on agility](#). *J Sports Sci Med*. 2006; 5: 459-465.
26. Ricard MD, Ugrinowitsch C, Parcell AC, Hilton S, Rubley MD, Sawyer R, Poole C. [Effects of rate of force development on EMG amplitude and frequency](#). *Int J Sports Med*. 2005, 26(1): 66-70; DOI: [10.1055/s-2004-817856](#).
25. Ugrinowitsch C, Fellingham GW, Ricard MD. [Limitations of ordinary least squares models in analyzing repeated measures data](#). *Med Sci Sports Exerc*. 2004, 36(12): 2144-2148 DOI: [10.1249/01.MSS.0000147580.40591.75](#).
24. Creer AR, Ricard MD, Hoyt G, Conlee RK, Parcell AC. [Neural, metabolic and performance adaptations to four weeks of high intensity sprint-interval training in trained cyclists](#). *Int J Sports Med*. 2004; 25(2): 92-98, DOI: [10.1055/s-2004-819945](#).
23. Peres SE, Draper DO, Knight KL, Ricard MD. [Pulsed shortwave diathermy and prolonged long-duration stretching increase dorsiflexion range of motion more than identical stretching without diathermy](#). *J Athl Train*. 2002; 37(2): 43-50.
22. Draper DO, Miner L, Knight KL, Ricard MD. [The carry-over effects of diathermy and stretching in developing hamstring flexibility](#). *J Athl Train*. 2002; 37(1): 37-42.
21. Rubley MD, Brucker JB, Knight KL, Ricard MD, Draper DO. [Flexibility retention 3 weeks after a 5-day training regime](#). *J Sport Rehabil*. 2001; 10(2):105-112.
20. Ricard MD, Sherwood SM, Schulthies SS, Knight KL. [Effects of tape and exercise on dynamic ankle inversion](#). *J Athl Train*. 2000; 35: 31-37.
19. Ricard MD, Schulthies SS, Saret JJ. [Effects of high top and low top shoes on ankle inversion](#). *J Athl Train*. 2000; 35:38-43.
18. Darrow H, Schulthies SS, Draper DO, Ricard MD, Measom GJ. [Serum dexamethasone levels after decadron phonophoresis](#). *J Athl Train*. 1999;34:338-341.
17. Stay J, Ricard MD, Schulthies SS, Draper DO, Durrant E. [Pulsed Ultrasound fails to diminish delayed onset muscle soreness symptoms](#). *J Athl Train*. 1998;33:341-346.
16. Schulthies SS, Ricard MD, Alexander KJ, Myrer JW. [An electromyographic investigation of four elastic tubing closed kinetic chain exercises after ACL reconstruction](#). *J Athl Train*. 1998; 33: 328-335.
15. Draper DO, Anderson C, Schulthies SS, Ricard MD. [Immediate and residual changes in dorsiflexion range of motion using an ultrasound heat and stretch routine](#). *J Athl Train*. 1998;33:141-144.



14. Gehri DJ, Ricard MD, Kleiner DM, Kirkendall DT. [A comparison of plyometric training techniques for improving vertical jumping ability and energy production](#). *J Strength Cond Res*. 1998; 12: 85-89.
13. Draper DO, Harris ST, Schulthies SS, Durrant E, Knight KL, Ricard MD. [Hot-pack and 1-MHz ultrasound treatments have an additive effect on muscle temperature Increase](#). *J Athl Train*. 1998;33:1-4.
12. Pederson TS, Ricard MD, Schulthies SS, Allsen PE, Merrill G. [Effects of sparring on amount and rate of inversion](#). *J Athl Train*. 1997;32:29-33.
11. Butterfield DL, Draper DO, Ricard MD, Durrant E, Myrer JW, Schulthies SS. [The effects of high-volt pulsed current electrical stimulation on delayed onset muscle soreness](#). *J Athl Train*. 1997;32:15-20.
10. Draper DO, Ricard MD. [Rate of temperature decay in human muscle following 3 MHz ultrasound: The stretching window revealed](#). *J Athl Train*. 1995; 30: 304-307.
9. Ricard MD, Veatch S. [Effect of running speed and aerobic dance jump height on vertical ground reaction forces](#). *J Applied Biomech*. 1994;10:14-27.
8. Draper DO, Sunderland S, Kirkendall DK, Ricard MD. [A comparison of temperature rise in human calf muscles following applications of underwater and topical gel ultrasound](#). *J Orthop Sports Phys Ther*. 1993; 17(5): 247-251 doi: [10.2519/jospt.1993.17.5.247](#).
7. Little SL, Ting M, Belknap LK, Ricard MD. Utilizing a general leisure behavior instrument for measuring a specific recreation activity. *Recreation Current Selected Research*. 1991;2:63-68.
6. Ricard MD, Veatch S. [Comparison of impact forces in high and low impact aerobic dance movements](#). *Int J Sport Biomech*. 1990; 6: 67-77.
5. Kernozek TW, Ricard MD. [Foot placement angle and arch type: Effect on rearfoot motion](#). *Arch Phys Med Rehab*. 1990; 12: 988-991.
4. Hamill J, Ricard MD, Golden DM. [Angular Momentum in non-twisting, multiple rotation platform dives](#). *Int J Sport Biomech*. 1986;2:137-145.
3. Hamill J, Golden DM, Ricard MD, Williams MA. Dynamics of selected tower dive takeoffs. In: Terauds J, Barnham J, eds. *Biomechanics in Sports II*. Del Mar, CA: Academic Publishers;1985:200-207.
2. Hamill J, Golden DM, Ricard MD. Kinetics and kinematics of tower dive takeoffs. In: Golden D, ed. *The Proceedings of the 1985 United States Diving Sports Science Seminar*, 1985:45-66.
1. Ricard MD. A biomechanical analysis of side horse vaulting. *Microform Publications Bulletin. Health, Physical Education and Recreation*. 5, October, 1982 - April, 1987. PE 2626f, 69 pages.

Manuscripts in Press

Manuscripts in Review

Prejean BJ, Ruhde, LA, Ricard MD. The influence of midsole cushioning on the kinetics and kinematics of running in midfoot and rearfoot runners", submitted to Journal of Applied Biomechanics.

Manuscripts Accepted, in revision

Manuscripts in Preparation



Data Collection Underway

Books

Mark D. Ricard, [Applied Biomechanics](#). 3rd ed. ISBN-13: 978-1725912236, 347 pages, Biomech Publications, 2018.

Book Chapters

Refereed Journal Abstracts

Ricard MD, Prejean BJ, Ruhde LA. [The effects of midsole cushioning on 50 ms knee compression impulse in midfoot and rearfoot runners](#). International/American Society of Biomechanics Proceedings, 2019, 552.

Prejean BJ, Ruhde LA, Ricard MD, [Midsole cushioning affects joint coupling patterns in running](#). International/American Society of Biomechanics Proceedings, 2019, 553.

Decker MN, Ruhde LA, Trowbridge CA, Ricard MD. [Kinematic and kinetic differences during the Y balance test in ACL reconstructed individuals](#). J Athl Train. 54(6) Supplement, S-408.

Wilson JR, Wilson K, Trowbridge CA, Ricard MD. [Comparison of two diabetic education programs designed to treat adult-onset diabetes mellitus](#). Med Sci Sport Exerc. 2019; 51(6): S289.

Caçola, P, Srinivasan D, Vasikaran H, Ricard MD, Liu H. Improvement in brain activation after a short handwriting intervention in children with Developmental Coordination Disorder. 12th International Conference on Developmental Coordination Disorder (DCD 12), Freemantle, Western Australia. DCD12 Book of abstracts, pp. 133, 2017.

Gabbard C, Caçola P, Ricard MD. [Effect of tool choice and length on reach distance estimation in children with Developmental Coordination Disorder](#). J Comorbidity. 2015; 5: 81-82.

Caçola P, Ibana M, Ricard MD, Gabbard C. [Children with Developmental Coordination Disorder demonstrate a spatial mismatch when using coincident-timing ability with tools](#). J Comorbidity. 2015; 5: 71.

Hansen DR, Ricard MD, Trowbridge CA. [Patterned electrical nerve stimulation improves quadriceps strength and power at high isokinetic speeds](#). J Athl Train. 2015; 50(6): S186.

Caçola P, Pant M, Ricard MD, Ray CT. (June, 2014). [Representation of motor interception abilities with tool use is similar in young and older adults](#). Journal of Sport and Exercise Psychology, 36 (supplement), S61.

Prejean BJ, Ray CT, Ricard MD. [Effects of vision on dynamic stability against backward loss of balance in young and elderly subjects](#). International Journal of Exercise Science: Conference Proceedings. 2014; 2(6): 39.

Han KM, Ricard MD. [Learning effect for the timed cross over hop test](#). J Athl Train. 2011; 46(3): S173.

Cason CL, Trowbridge CT, Marwaha S, Ricard MD. [Compliant mattresses adversely affect CPR quality](#). Circulation. 2010; 122: A115.

Han KM, Ricard MD. [Minimum detectable difference between legs and learning effects of three functional tests](#). J Athl Train. 2010; 45: S118-119.

Wilson JR, Putman DH, Beckham S, Ricard MD. [Bench height and step cadence effects in aerobic dance on force impact and metabolic costs](#). Med Sci Sport Exerc. 2010; 42: 746.

Sweir DP, Ray CA, Ricard MD, Dalleck L, Blevins-McNaughton, J. [Elliptical trainer brands and the](#)



- [development of a metabolic prediction equation](#). *Med Sci Sport Exerc.* 2009; 41: 261-262.
- Wilson JR, Williams W, Ricard MD. [A preliminary survey of college cheerleaders for symptoms of eating disorders](#). *Med Sci Sport Exerc.* 2009; 41: 323.
- Trowbridge CA, Cason CL, Ricard MD, Parekh J. [Kinematic and kinetic changes among female rescuers performing 10 minutes of 30:2 cardiopulmonary resuscitation versus compressions only resuscitation](#). *Circulation.* 2008; 117: e419.
- Trowbridge CA, Ricard MD, 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](#). *J Orthop Sports Phys Ther.* 2007; 37: A25.
- Crowder CA, Trowbridge CA, Ricard MD, Womochel KS. The effect of subcutaneous adipose on intramuscular temperature during and after pulsed shortwave diathermy. *J Athl Train.* 2007; 42: S103.
- Fincher AL, Trowbridge CA, Ricard MD. A Comparison of Intramuscular Temperature Increases and Uniformity of Heating Produced by Hands-Free Autosound™ and Manual Therapeutic Ultrasound Techniques. *J Athl Train.* 2007; 42: S41.
- Trowbridge CA, Ricard MD, Schorr MJ, Womochel KS. Short term effects of pulsed shortwave diathermy and passive stretch on the torque-angle relationship of the triceps surae muscles. *J Athl Train.* 2007; 42: S132.
- Ricard MD, Ugrinowitsch C, Hilton S, Parcell AC, Hunter I, Knight K, Tricoli V. [Effects of rate of force development on fatigue onset and location](#). *Med Sci Sport Exerc.* 2006; 38: S443.
- Ugrinowitsch D, Tricoli V, Batista M, Rodacki AL, Ricard MD. [Influence of training background on jumping height](#). *Med Sci Sport Exerc.* 2006; 38, S297.
- Porter AR, Hennigar DM, Miller MG, Ricard MD, Cheatham CC, Berry DC. Comparisons of chest and waist deep water on aquatic plyometric training programs on average force, power, and vertical jump. *J Athl Train.* 2006 41; S86.
- Trowbridge CA, Ricard MD, 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 III.* 2006.
- Gyrokos A, Michael T, Cheatham C, Ricard MD. [The Effect of Glycemic Index and Timing of Meal on Exercise to Fatigue](#). *Med Sci Sport Exerc.* 2006; S38:5.
- Trowbridge CA, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO. The effects of strength and plyometric training on joint position and joint moments of the female knee. *J Athl Train.* 2005; 40: S90.
- Hills-Meyer P, Ricard MD, Miller MG, Michael TJ. The effects of bicycle frame geometry on muscle activation and power during a Wingate anaerobic test. *J Athl Train.* 2005; 40: S93.
- Brucker JB, Knight KL, Ricard MD, Myrers JW, Schulthies SS, Schaalje GB. Effects of unilateral ankle ice water immersion on normal walking gait. *J Athl Train.* 2004; 39: S32.
- Kelly JK, Miller MG, Ricard MD. Land-based and aquatic-based plyometric training programs have no effect on balance. *J Athl Train.* 2004; 39: S95.
- Roth AE, Miller MG, Ricard MD. Comparison of land and aquatic balance training. *J Athl Train.* 2004; 39: S98.
- Trowbridge CA, Winder RP, Hunter I, Ricard MD. Gender differences in knee torques and angles during different cutting tasks. *J Athl Train.* 2004; 39: S110.
- Schulthies SS, Hepburn DJ, Ricard MD, Draper DO. Three closed chain elastic tubing exercises do not selectively activate the VMO compared to the VL in patients with patellofemoral pain syndrome. *J Athl Train.* 2003; 38: S82.
- Brucker JB, Knight KL, Ricard MD, Myrer JW, Schulthies SS, Schaalje GB. The effects of exercise on cold-induced pain after unilateral ankle ice water immersion. *J Athl Train.* 2003; 38: S47.
- Christopher GA, Ricard MD. [Shoulder biomechanics in volleyball spiking: Implications for injuries](#).



- IV World Congress of Biomechanics Book of Abstracts. 2002; 257.
- Trowbridge CA, Draper DO, Jutte LS, Feland JB, Eggett DL, Ricard MD. A comparison of the capiscum back plaster, the ABC back plaster and the ThermCare Heatwrap on paraspinal muscle and skin temperature. *J Athl Train*. 2002; 37: S102.
- Rubley MD, Knight KL, Ricard MD, Parcell AC, Schulthies SS, Hilton SC. Motor unit recruitment and muscular adaptations in response to traditional isotonic, DAPRE isotonic and isokinetic strength training of the triceps. *J Athl Train*. 2002; 37: S107.
- Kimball M, Schulthies SS, Fellingham GW, Knight KL, Myrer JW, Ricard MD. Effect of posture specific exercise on chronic vertebral pain and disability. *J Athl Train*. 2002; 37: S12.
- Han KM, Schulthies SS, Ricard MD, Fellingham GW. Peroneal muscle preactivation and activation and ankle evertor strength following 4-week elastic resistive tubing exercises. *J Athl Train*. 2002; 37: S95.
- Creer A, Parcell AC, Ricard MD. Effects of 4 weeks of high intensity sprint training on experienced cyclists. *Med Sci Sports Exerc*. 2002; 34(supplement): S27.
- Ricard MD, Sherwood SM, Schulthies SS, Knight KL. Effects of tape and exercise on dynamic ankle inversion. In: *2001 The Year Book of Sports Medicine*. Ed: Shephard RJ, Alexander MJ, Kohrt WM, Nieman DC, Torg JS, George FJ, Sallis RE. St Louis: Mosby, 2001; 228-230.
- Han KM, Schulthies SS, Ricard MD, Fellingham GW. Effects of elastic tubing exercises on postural balance and peroneus longus latency. *J Athl Train*. 2001; 36: S77.
- Tricoli VA, Ricard MD, Parcell AC, Sawyer RD. [Internal vs external velocity: Effects of strength training protocols on velocity-specific adaptations and human skeletal muscle variables](#). *Med Sci Sport Exerc*. 2001; 33(5) Supplement: S264.
- Ricard MD, Schulthies SS, Knight KL, Sherwood SM. [Effects of tape and exercise on peroneus longus and tibialis anterior muscle latency during sudden inversion](#). In: Herzog W, Jinha A, eds. *International Society of Biomechanics XVIIth Congress Book of Abstracts*, Calgary, Canada; 1999: 749.
- Sherwood SM, Ricard MD, Schulthies SS, Knight KL. Underwrap does not contribute to the loosening of tape. *J Athl Train*. 1999; 34: S73.
- Stay JC, Ricard MD, Schulthies SS, Durrant E, Draper DO. Pulsed ultrasound fails to diminish delayed onset muscle soreness symptoms whether delivered once or twice daily. *J Athl Train*. 1998;33:S69.
- Ricard MD, Schulthies SS, Brinton M, Tricoli VA, Han, K-M. [The role of the evertors in sudden inversion and gait](#). Arsenault AB, McKinley P, McFadyen B. eds. *Proceedings of the Twelfth International Society of Electrophysiological Kinesiology* Montreal, Canada; 1998: 248-249.
- Ricard MD, Saret JJ, Schulthies SS. Comparison of the amount and rate of inversion between high top and low top shoes. *J Athl Train*. 1997; 32: 13.
- Metzger K, Schulthies SS, Ricard MD, Myrer JW. An electromyographic investigation of four elastic tubing closed kinetic chain exercises after ACL reconstruction. *J Athl Train*. 1997; 32: S36.
- Ricard MD, Butterfield D, Draper DO, Schulthies SS, Myrer W. Acute effects of exercise on passive joint stiffness. In: Fyhrie D, Gregor R, eds. *Conference Proceedings of the 20th Annual Meeting of the American Society of Biomechanics*. 1996:233-234.
- Kleiner DM, Ivey FM, Jones MA, Ricard MD, Kirkendall DT. [The influence of sex hormone levels on perceived soreness](#). *Med Sci Sports Exerc*. 1996; 28: S118.
- Gehri DJ, Kleiner DM, Ricard MD, Kirkendall DT. An evaluation of jump training techniques for improving vertical jumping ability and energy production. National Strength and Conditioning Association Research Abstracts. 1996:S101.
- Billings C, Draper DO, Schulthies SS, Ricard MD. Ability of the Omnisound 3000tm Delta T mode to reproduce predictable temperature increases in human muscle. *J Athl Train*. 1996; 31: S-47.
- Rose S, Draper DO, Schulthies SS, Ricard MD. Rate of temperature decrease in deep muscle



- following 1 MHz ultrasound: immediate stretching, mobilization indicated. *J Athl Train*. 1996; 31: S-47.
- Ricard MD, Stylianides GA. [Angular momentum in the free hip circle to handstand on the uneven bars](#). In: Hakkinen K, Keskinen KL, Komi PV, Mero A, eds. *XVth Congress of the International Society of Biomechanics Book of Abstracts*. 1995: 770.
- Ryan MA, Kleiner DM, McCaw ST, Ricard MD. The effects of ankle taping on postural stability. *J Athl Train*. 1995; 30: S-5.
- McCaw ST, Ryan MA, Kleiner DM, Knox KE, Ricard MD. The effects of ankle taping and visual input on balance. *J Athl Train*. 1995;30:S-6.
- Draper DO, Rose S, Billings C, Ricard MD. The stretching window revealed: Rate of heat loss in human muscle following 3 Megahertz ultrasound. *J Athl Train*. 1995; 30: S-34.
- Fussell WM, Kirkendall DT, Brown DD Ricard MD. Body Composition in blacks: Comparisons between hydrostatic weighing, bioelectrical impedance and skin fold thickness. *Med Sci Sports Exerc*. 1995; 27: S117.
- Ivey FM, Kleiner DM, Jones MA, Kirkendall DT, Ricard MD. The relationship between sex hormone levels and serum creatine kinase response. *Med Sci Sports Exerc*. 1995; 27: S155.
- Melrose DR, Ricard MD, Kirkendall DT. Effect of eccentric loading on series elastic contribution to vertical jump performance. *Midwest Chapter of the American College of Sports Medicine Annual Winter Meeting*. Boyne Mountain, Michigan.1994; 26.
- Kliener DM, Drudge TK, Ricard MD. An electromyographic comparison of popular open and closed kinetic chain knee rehabilitation exercises. *J Athl Train*. 1994; 29: 156-157.
- Drudge TK, Kleiner DM, Ricard MD. An electromyographic comparison of the biodex open and closed kinetic chain knee exercises. *J Athl Train*. 1994; 29: 183.
- Kernozek TK, Ricard MD. A kinetic and kinematic analysis of rugby drop kicks. *ABSTRACTS of Research Papers 1990*. 1990:163.
- Little SL, Yew MT, Belknap LK, Ricard MD. Utilization of a general leisure behavior instrument for measuring a specific leisure activity. *ABSTRACTS of Research Papers 1989*.1989:221.
- Ricard MD, Hamill J. Mechanical energy in the men's front handspring front salto vault. *ABSTRACTS of Research Papers 1988*, 1988:254.
- Miller MK, Hamill J, Ricard MD. Effect of ankle orthoses on lower extremity function. *Med Sci Sports Exerc*. 1988; 20: 55.

Refereed Journal Abstracts Accepted

Professional Presentations

- Ricard MD, Prejean BJ, Ruhde LA. [The effects of midsole cushioning on 50 ms knee compression impulse in midfoot and rearfoot runners](#). International/American Society of Biomechanics Conference, Calgary, Canada, July 31 – August 4, 2019.
- Prejean BJ, Ruhde LA, Ricard MD, [Midsole cushioning affects joint coupling patterns in running](#). International/American Society of Biomechanics Conference, Calgary, Canada, July 31 – August 4, 2019.
- Decker MN, Ruhde LA, Trowbridge CA. Ricard MD. [Kinematic and kinetic differences during the Y balance test in ACL reconstructed individuals](#). NATA 70th Clinical Symposia, Las Vegas, NV, June 24-27, 2019.
- Wilson JR, Wilson K, Trowbridge CA, Ricard MD. [Comparison of two diabetic education programs designed to treat adult-onset diabetes mellitus](#). American College of Sports



- Medicine 66th Annual Meeting, Orlando, FL, May 28 – June 1, 2019.
- Jenkins ED, Prejean BJ, Ray CT, Ricard MD. Reliability analysis of a proprietary software algorithm to assess center of mass from center of pressure on a protokinetics gait mat in posture and gait. [XXVI Congress of the International Society of Biomechanics](#), Brisbane, Australia, July 23-27, 2017.
- Prejean BJ, Ruhde LA, Ricard MD. A comparison of knee joint stiffness during running between minimalist and maximalist shoes in rearfoot and midfoot strikers. [XXVI Congress of the International Society of Biomechanics](#), Brisbane, Australia, July 23-27, 2017.
- Caçola P, Srinivasan D, Vasikaran H, Ricard MD, Liu H. Improvement in brain activation after a short handwriting intervention in children with Developmental Coordination Disorder. 12th International Conference on Developmental Coordination Disorder (DCD 12), Freemantle, Western Australia. DCD12 Book of abstracts, pp. 133, July, 2017.
- Hansen DR, Ricard MD, Trowbridge CA. [Patterned electrical nerve stimulation improves quadriceps strength and power at high isokinetic speeds](#). 2015 NATA Annual Meeting & Clinical Symposia, St. Louis, MO, June 23-26, 2015.
- Gabbard C, Caçola P, Ricard MD. [Effect of tool choice and length on reach distance estimation in children with Developmental Coordination Disorder](#). 11th International Conference on Developmental Coordination Disorder, Toulouse, France, July 2015.
- Caçola P, Ibana M, Ricard MD, Gabbard C. [Children with Developmental Coordination Disorder demonstrate a spatial mismatch when using coincident-timing ability with tools](#). 11th International Conference on Developmental Coordination Disorder, Toulouse, France, July 2015.
- Caçola P, Pant M, Ricard M, Ray C. [Representation of motor interception abilities with tool use is similar in young and older adults](#). NASPSPA annual convention, Minneapolis, MN, June 12 – 14, 2014.
- Prejean BJ, Ray CT, Ricard MD. [Effects of vision on dynamic stability against backward loss of balance in young and elderly subjects](#). Texas American College of Sports Medicine Regional Meeting, Fort Worth, TX, February 27 – 28, 2014.
- Han K-M, Ricard MD, Kim K-H. [Best predictors of impending loss of balance](#). American College of Sports Medicine 60th Annual Meeting, Indianapolis, IN, May 28 – June 1, 2013.
- Proma FA, Imrhan SN, Ricard MD. [An analysis of EMG activity while torquing on disc handles of varying sizes](#). XXIVth Annual International Occupational Ergonomics and Safety Conference, Ft. Lauderdale, FL, June 7-8, 2012.
- Sukchotrat C, Imrhan SN, Ricard MD. [Comparison of EMG torques on various shapes of knobs](#). XXIVth Annual International Occupational Ergonomics and Safety Conference, Ft. Lauderdale, FL, June 7-8, 2012.
- Han KM, Ricard MD. [Learning effect for the timed cross over hop test](#). 2011 NATA Annual Meeting & Clinical Symposia, New Orleans, LA, June 20-23, 2011.
- Tommerdal J, Moran PA, Ricard MD. The cognitive architecture of reasoning. International Mind Brain Education Society Conference, San Diego, CA, June 2-4, 2011.
- Cason CL, Trowbridge CT, Marwaha S, Ricard MD. [Compliant mattresses adversely affect CPR quality](#). American Heart Association Resuscitation Science Symposium, Chicago, IL, November 13-14, 2010.
- Han KM, Ricard MD. Minimum detectable difference between legs and learning effects of three functional tests. 2010 NATA Annual Meeting & Clinical Symposia, Philadelphia, PA, June 22-25, 2010.
- Wilson JR, Putman DH, Beckham S, Ricard MD. [Bench height and step cadence effects in aerobic dance on force impact and metabolic costs](#). ACSM Annual Meeting, Baltimore, MD, June 1-5, 2010.



- Garner R, Wilson JR, Yilla AB, Ricard MD, Heddins B, McKeown BC. Estimating percent body fat in disabled individuals with spinal cord injury: A pilot study. Texas American College of Sports Medicine, Houston, TX, March 4-5, 2010.
- Han KM, Ricard MD, Jain M. Between trial reliability of total travel distance in single leg balance during eyes open, eyes closed and eyes open on foam. World Federation of Athletic Training & Therapy (WFATT World Congress 2009), San Antonio, TX, June 15-17, 2009.
- Sweir DP, Ray CA, Ricard MD, Dalleck L, Blevins-McNaughton, J. [Elliptical trainer brands and the development of a metabolic prediction equation](#), ACSM Annual Meeting, Seattle, WA, May 27-30, 2009.
- Wilson JR, Williams W, Ricard MD. A preliminary survey of college cheerleaders for symptoms of eating disorders. ACSM Annual Meeting, Seattle, WA, May 27-30, 2009.
- Trowbridge CA, Parekh JN, Ricard MD, Cason C. Kinematic And Kinetic Changes Among Female Rescuers Performing 10 Minutes Of 30:2 Cardiopulmonary Resuscitation Versus Compressions Only Resuscitation. 9th Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke, Baltimore, MD, 2008.
- Rubley MD, Ugrinowitsch C, Knight KL, Ricard MD, Holcomb WR, Tandy RD. [Comparison of work performed during 3 sets of 10 repetitions of isokinetic and isotonic strengthening exercise of the triceps](#), Las Vegas, NV, 2008.
- Rubley MD, Ugrinowitsch C, Knight KL, Ricard MD, Holcomb WR, Tandy RD. [Comparison of maximal isokinetic and isotonic force during 3 sets of 10 repetitions of strengthening exercise of the triceps](#), Las Vegas, NV, 2008.
- Crowder CA, Trowbridge CA, Ricard MD, Womochel KS. The effect of subcutaneous adipose on intramuscular temperature during and after pulsed shortwave diathermy. National Athletic Trainers' Association 58th Annual Meeting, Anaheim, CA, 2007.
- Fincher AL, Trowbridge CA, Ricard MD. A Comparison of Intramuscular Temperature Increases and Uniformity of Heating Produced by Hands-Free Autosound™ and Manual Therapeutic Ultrasound Techniques. National Athletic Trainers' Association 58th Annual Meeting, Anaheim, CA, 2007.
- Trowbridge CA, Ricard MD, Schorr MJ, Womochel KS. Short term effects of pulsed shortwave diathermy and passive stretch on the torque-angle relationship of the tricep surae muscles. National Athletic Trainers' Association 58th Annual Meeting, Anaheim, CA, 2007.
- Crowder CA, Womochel KS, Trowbridge CA, Ricard MD. The effect of subcutaneous adipose on intramuscular temperature during pulsed shortwave diathermy. Texas ACSM, Fort Worth, TX, 2007.
- Davis DR, Womochel KS, Trowbridge CA, Ricard MD. The effects of continuous cooling and cyclical compression on intramuscular and surface temperatures of the distal quadriceps. Texas ACSM, Fort Worth, TX, 2007.
- Ricard MD, Ugrinowitsch C, Hilton S, Parcell AC, Hunter I, Knight K, Tricoli V. Effects of rate of force development on fatigue onset and location. American College of Sports Medicine 53rd Annual Meeting, Denver, CA, 2006.
- Ugrinowitsch D, Tricoli V, Batista M, Rodacki AL, Ricard MD. Influence of training background on jumping height. American College of Sports Medicine 53rd Annual Meeting, Denver, CA, 2006.
- Crowder C, Trowbridge CA, Ricard MD. The effect of subcutaneous adipose on intramuscular temperature during and after pulsed shortwave diathermy. Southwest Athletic Trainers' Association Annual Meeting. Little Rock, AR, 2006.
- Schorr M, Trowbridge CA, 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.
- Porter AR, Hennigar DM, Miller MG, Ricard MD, Cheatham CC, Berry DC. Comparisons of chest and



- waist deep water on aquatic plyometric training programs on average force, power, and vertical jump. NATA National Convention, Atlanta, GA, 2006
- Trowbridge CA, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO. The effects of strength and plyometric training on joint position and joint moments of the female knee. *ACL Research Retreat III*. Lexington, KY, 2006.
- Gyrokos A, Michael T, Cheatham C, Ricard MD. The Effect of Glycemic Index and Timing of Meal on Exercise to Fatigue. American College of Sports Medicine 53rd Annual Meeting American College of Sports Medicine 53rd Annual Meeting, Denver, CA, 2006.
- Trowbridge CA, Ricard MD, Schulthies SS, Knight KL, Hopkins JT, Draper DO. The effects of strength and plyometric training on joint position and joint moments of the female knee. National Athletic Trainers' Association 56th Annual Meeting & Clinical Symposia, 2005.
- Hills-Meyer P, Ricard MD, Miller MG, Michael TJ. The effects of bicycle frame geometry on muscle activation and power during a Wingate anaerobic test. National Athletic Trainers' Association 56th Annual Meeting & Clinical Symposia, 2005.
- Brucker JB, Knight KL, Ricard MD, Myrers JW, Schulthies SS, Schaalje GB. Effects of unilateral ankle ice water immersion on normal walking gait. National Athletic Trainers' Association 55th Annual Meeting & Clinical Symposia, 2004.
- Kelly JK, Miller MG, Ricard MD. Land-based and aquatic-based plyometric training programs have no effect on balance. National Athletic Trainers' Association 55th Annual Meeting & Clinical Symposia, 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.
- Roth AE, Miller MG, Ricard MD. Comparison of land and aquatic balance training. National Athletic Trainers' Association 55th Annual Meeting & Clinical Symposia, 2004.
- Trowbridge CA, Winder RP, Hunter I, Ricard MD. Gender differences in knee torques and angles during different cutting tasks. National Athletic Trainers' Association 55th Annual Meeting & Clinical Symposia, 2004.
- Schulthies SS, Hepburn DJ, Ricard MD, Draper DO. Three closed chain elastic tubing exercises do not selectively activate the VMO compared to the VL in patients with patellofemoral pain syndrome. National Athletic Trainers' Association 54th Annual Meeting & Clinical Symposia, 2003.
- Brucker JB, Knight KL, Ricard MD, Myrer JW, Schulthies SS, Schaalje GB. The effects of exercise on cold-induced pain after unilateral ankle ice water immersion. National Athletic Trainers' Association 54th Annual Meeting & Clinical Symposia, 2003.
- Christopher GA, Ricard MD. Shoulder biomechanics in volleyball spiking: Implications for injuries. IV World Congress of Biomechanics. Calgary, August 4-9, 2002.
- Trowbridge CA, Draper DO, Jutte LS, Feland JB, Eggett DL, Ricard MD. A comparison of the capiscum back plaster, the ABC back plaster and the ThermCare Heatwrap on paraspinal muscle and skin temperature. National Athletic Trainers' Association 53th Annual Meeting & Clinical Symposia, 2002.
- Rubley MD, Knight KL, Ricard MD, Parcell AC, Schulthies SS, Hilton SC. Motor unit recruitment and muscular adaptations in response to traditional isotonic, DAPRE isotonic and isokinetic strength training of the triceps. National Athletic Trainers' Association 53th Annual Meeting & Clinical Symposia, 2002.
- Kimball M, Schulthies SS, Fellingham GW, Knight KL, Myrer JW, Ricard MD. Effect of posture specific exercise on chronic vertebral pain and disability. National Athletic Trainers' Association 53th Annual Meeting & Clinical Symposia, 2002.
- Han KM, Schulthies SS, Ricard MD, Fellingham GW. Peroneal muscle preactivation and activation



- and ankle evertor strength following 4-week elastic resistive tubing exercises. National Athletic Trainers' Association 53th Annual Meeting & Clinical Symposia, 2002.
- Creer A, Parcell AC, Ricard MD. Effects of 4 weeks of high intensity sprint training on experienced cyclists. American College of Sports Medicine, St. Louis, 2002.
- Rubley MD, Knight KL, Ricard MD, Parcell AC, Schulthies SS, Hilton SC. Motor Unit Recruitment and Muscular Adaptations in Response to Traditional Isotonic, DAPRE Isotonic and Isokinetic Strength Training of the Triceps. National Athletic Trainers' Association 53th Annual Meeting & Clinical Symposia, 2002.
- Tricoli V, Ricard MD, Parcell AC, Sawyer R. Internal vs external velocity: Effects of strength training protocols on velocity-specific adaptations and human skeletal muscle variables. American College of Sports Medicine, Baltimore MD, 2001.
- Draper DO, Peres S, Knight KL, Ricard MD, Pulsed shortwave diathermy and prolonged stretch increases dorsiflexion range of motion more than stretch alone. National Athletic Trainers' Association 52nd Annual Meeting and & Clinical Symposia, Los Angeles CA, 2001.
- Ugrinowitsch C, Ricard MD, Parcell AC, Rubley MD, Sawyer R. Comparison of the root mean square (RMS) and median frequency (MF) of the EMG signal in ballistic and ramp contractions in sprinters. Southwest American College of Sports Medicine Meeting. Salt Lake City. November 16-17, 2001.
- Han KM, Schulthies SS, Ricard MD, Fellingham GW. Effects of elastic tubing exercises on postural balance and peroneus longus latency. National Athletic Trainers' Association 52th Annual Meeting & Clinical Symposia. Los Angeles. June 23, 2001.
- Han KM, Schulthies SS, Ricard MD, and Fellingham GW. Effects of Flex Cord Exercises on Balance Control and Ankle Evertor Reaction following Sudden Inversion in College Age Adults, Research Presentations. *Utah Chapter of the American Physical Therapy Association, 25th Annual State Conference*, Park City, UT, December 1, 2000.
- Sherwood SM, Ricard MD, Schulthies SS, Knight KL. Underwrap does not contribute to the loosening of tape. National Athletic Trainers' Association 50th Annual Meeting & Clinical Symposia. Baltimore, MD. June 18-21, 1999.
- Ricard MD, Schulthies SS, Knight KL, Sherwood SM. Effects of tape and exercise on peroneus longus and tibialis anterior muscle latency during sudden inversion. International Society of Biomechanics XVII Congress, Calgary, Canada. August, 8-13, 1999.
- Stay JC, Ricard MD, Schulthies SS, Durrant E, Draper DO. Pulsed ultrasound fails to diminish delayed onset muscle soreness symptoms whether delivered once or twice daily. National Athletic Trainers' Association 49th Annual Meeting & Clinical Symposia. Baltimore, MD. June 18-21, 1998.
- Ricard MD, Schulthies SS, Brinton M, Tricoli VA, Han K-M. The role of the evertors in sudden inversion and gait. Twelfth International Society of Electrophysiological Kinesiology meeting in Montreal, Canada. June 27-30, 1998.
- Ricard MD, Saret JJ, Schulthies SS, Comparison of the amount and rate of inversion between high top and low top shoes. National Athletic Trainers' Association 48th Annual Meeting & Clinical Symposia. Salt Lake, Utah. June 18-21, 1997.
- Metzger K, Schulthies SS, Ricard MD, Myrer JW. An electromyographic investigation of four elastic tubing closed kinetic chain exercises after ACL reconstruction. National Athletic Trainers' Association 48th Annual Meeting & Clinical Symposia. Salt Lake, Utah. June 18-21, 1997.
- Ricard MD, Butterfield D, Draper DO, Schulthies SS, Myrer JW. Acute effects of exercise on passive joint stiffness. Twentieth Annual Meeting of the American Society of Biomechanics. Atlanta, Georgia. October 17-19, 1996.
- Kleiner DM, Ivey FM, Jones MA, Ricard MD, Kirkendall DT. The influence of sex hormone levels on perceived soreness. American College of Sports Medicine 43rd Annual Meeting. Cincinnati,



- Ohio. May 29 - June 1, 1996.
- Gehri DJ, Kleiner DM, Ricard MD, Kirkendall DT. An evaluation of jump training techniques for improving vertical jumping ability and energy production. National Strength and Conditioning National Conference. Atlanta, Georgia. June 20-21, 1996.
- Billings C, Draper DO, Schulthies SS, Ricard MD. Ability of the Omnisound 3000™ Delta T mode to reproduce predictable temperature increases in human muscle. National Athletic Training Association Symposium. Orlando, Florida, 1996.
- Rose S, Draper DO, Schulthies SS, Ricard MD. Rate of temperature decrease in deep muscle following 1 MHz ultrasound: immediate stretching, mobilization indicated. National Athletic Training Association Symposium. Orlando, Florida, 1996.
- Ricard MD, Stylianides GA. Angular momentum in the free hip circle to handstand on the uneven bars. XVth Congress of the International Society of Biomechanics. Jyväskylä, Finland. July 2-6, 1995.
- Draper DO, Rose S, Billings C, Ricard MD. The stretching window revealed: Rate of heat loss in human muscle following 3 Megahertz ultrasound. N.A.T.A. Convention, Indianapolis, IN, 1995.
- Fussell WM, Kirkendall DT, Brown DD, Ricard MD. Body Composition in blacks: Comparisons between hydrostatic weighing, bioelectrical impedance and skin fold thicknesses. American College of Sports Medicine, Minneapolis, MN, 1995.
- Ivey FM, Kleiner DM, Jones MA, Kirkendall DT, Ricard MD. The relationship between sex hormone levels and serum creatine kinase response. American College of Sports Medicine, Minneapolis, MN, 1995.
- Ryan MA, Kleiner DM, McCaw ST, Knox KE, Ricard MD. The effects on ankle hair and ankle taping on postural stability. N.A.T.A. Convention, Indianapolis, IN, 1995.
- McCaw ST, Ryan MA, Kleiner DM, Knox KE, Ricard MD. The effects of ankle taping and visual input on balance. N.A.T.A. Convention, Indianapolis, IN, 1995.
- Kliener DM, Drudge TK, Ricard MD. An electromyographic comparison of popular open and closed kinetic chain knee rehabilitation exercises. NATA Convention, Dallas, TX, 1994.
- Melrose DR, Ricard MD, Kirkendall DT. Effect of eccentric loading on series elastic contribution to vertical jump performance. Midwest Chapter of the American College of Sports Medicine Annual Winter Meeting. Boyne Mountain, Michigan, 1994.
- Drudge TK, Kleiner DM, Ricard MD. An electromyographic comparison of the biodex open and closed kinetic chain knee exercises. NATA Convention, Dallas, TX, 1994.
- Kernozek TK, Ricard MD. A kinetic and kinematic analysis of rugby drop kicks. AAHPERD National Convention, New Orleans, LA, 1990.
- Thirer J, Dobbs RD, Houseworth S, Ricard MD. The effect of an exercise-fitness program on the incidence of reactive depression for male and female college students. Association for Advancement of Applied Sport Psychology Annual Convention, Nashua, NH, 1989.
- Little SL, Yew MT, Belnap LK, Ricard MD. Utilization of a general leisure behavior instrument for measuring a specific leisure activity. AAHPERD National Convention, Baltimore, MD, 1989.
- Ricard MD, Hamill J. Mechanical energy in the men's front handspring front salto vault. AAHPERD National Convention, Kansas City, MO, 1988.
- Miller MK, Hamill J, Ricard MD. Effect of ankle orthoses on lower extremity function. ACSM Annual Meeting, Dallas, TX, 1988.
- Hamill J, Bates BT, Ricard MD, Miller MK. Evaluation of shoe orthotic interaction using an in-shoe pressure sensor system. Proceedings of the Fourth Biannual Conference of the Canadian Society for Biomechanics. Montreal, Quebec, Canada, August 20-25, 1986.
- Ricard MD, Hamill, J, Golden DM. Angular momentum in non-twisting, multiple rotation platform dives. Meeting of Graduate Students in Biomechanics in Indiana and Illinois, University of Illinois, Champaign, IL, 1986.



Hamill J, Golden DM, Ricard MD, Williams MA. Dynamics of selected tower dive takeoffs. Third International Symposium of Biomechanics in Sports. Greeley, CO, 1985.

Grants and Contracts

External Grants and Contracts

Active Grants

Pending Grants

Active Grants

Previously Funded Grants

Caçola P, Ricard MD, Makedon F, Liu H (Co-PIs). The iWrite Project: A computer based rehabilitation approach for handwriting in children with developmental coordination disorder. Interdisciplinary Research Program, University of Texas at Arlington, 2015, Funded \$19,687.00.

Trowbridge CA (PI), Ricard MD (Co-Pi). Patterned electrical neuromuscular stimulation on muscle strength and power in healthy normal. Funded by Accelerated Care Plus. UTA GSC# 2014-319, January 1 2014 – January 1, 2015, Total Costs: \$11,870.

Trowbridge CA (PI), Ricard MD (Co-Pi). Intramuscular quadriceps temperature, thigh skin surface temperature and nerve conduction velocity during and after application of Hyperice™ and other traditional cold modalities. Funded by Hyperice. UTA GSC# 2014-546, June 1, 2013 – December 31, 2014, Indirect cost: \$6,010, Total Costs: \$41,844.

Cason CL, Trowbridge CA, Ricard MD. Effectiveness of CPR administration when administered on a cardiac bed. Laerdal and the American Heart Association. 2009-2010. Amount Funded: \$22,000.00, Continuation of 2008-2010 grant, UTA GCS#: 26-7603-55.

Cason CL, Trowbridge CA, Ricard MD. Effectiveness of CPR administration when administered on a cardiac bed. Laerdal and the American Heart Association. 2008-2009. Amount Funded: \$46,000.00, UTA GCS#: 26-7603-55.

Gatchel RJ, Ricard MD. Clinical evaluation of computerized muscle action test in the treatment of low back pain. Amount Funded: \$70,000, UTA GSC# 26-7604-06. Fall 2008 – Spring 2009.

Gatchel RJ, Ricard MD. Reliability of low back lifting neuromuscular test. Medical Technologies Unlimited. Amount funded: \$88,000. Spring, 2008.

Cason CL, Trowbridge CA, Ricard MD. Effects of verbal feedback on muscle fatigue during CPR administration. Laerdal and the American Heart Association. 2007. Amount funded: \$42,000.00, UTA GCS#: 26-7603-55.

Cason CL, Trowbridge CA, Ricard MD, Mancini ME, Parekh J, Campbell JC, Womochell K. Muscle fatigue during CPR administration in middle aged female laypersons and female nurses. Laerdal and the American Heart Association. 2007. Amount Funded: \$40,289.00, UTA GCS#: 07389.

Trowbridge CA, Ricard MD, Fincher AL. Evidence based use of the InterX™ electrotherapy device on orthopedic conditions. March, 2007. Amount Funded: \$17,250.00.

Trowbridge CA, Davis D, Gregory J, Schorr M, Ricard MD, Fincher AL. (2006). The effects of continuous circulating water and cyclical compression on intramuscular and surface



temperatures of the distal quadriceps. Funded: by Cool Systems Inc. Amount Funded: \$11,739.00, UTA GCS#: 07014.

Ricard MD. (2000). Effects of shoe design on ankle inversion and muscle latency. Faculty Fellowship Grant. K-Swiss Shoe Company. Funded \$1,600.00.

Ricard MD. (1994). Center of Pressure Patterns in Aerobic Dance. Faculty Fellowship Grant. Reebok Shoe Company. Funded \$500.00.

Ricard MD. (1991). Quantification of load in aerobic dance movements. Reebok Shoe Company, Funded: \$595.00.

Ricard MD. (1990). Comparison of impact forces in high and low impact aerobic dance. PCB Electronics, Funded: \$400.

Ricard MD. (1988). The Effect of Women's Shoe Design Upon Impact Forces and Rearfoot Motion in Running. NIKE Sport Inc., Funded: \$680.

Previously Submitted Unfunded Grants

Ahmad I (PI), Huber M (Co-PI), Ricard MD (Co-PI), Makhmalbaf A (Co-PI), Tommerdahl J (Co-PI), Li M (Co-PI), Audirac I (Co-PI), Kuo J (External Evaluator). NRT Program in Smart Environments with Assistive Technologies for People with Disabilities. UTA GSC# 2019-355, Submitted to: [National Science Foundation NRT Program](#), Total Direct Costs: \$2,616,805.76, Indirect Costs: \$383,163.35, Submitted 02/06/2019.

Wijesundara MB (PI), Gatchel, RJ (Co-PI), Ray CT (Co-PI), Ricard MD (Co-PI). Congressionally Directed Medical Research Program, Department of Defense. An objective clinical assessment tool to evaluate low back pain symptomology in high-opioid risk individuals. LOI submitted June 22, 2016.

Ray CT (PI), Gatchel, RJ (Co-PI), Daniel KD (Co-PI), Ricard MD (Co-PI). Clinically relevant gait modeling for management of older adult's functional status. National Institutes of Health Academic Research Enhancement Award, Submitted February 25, 2015, Total Costs: \$390,424.

Richards SS (PI), Ray CT (Co-PI), Ricard MD (Co-PI). Automatic fall detection and protection. National Institutes of Health SBIR, Submitted September 4, 2015, Total Direct Costs: \$157,769.

Mariottini G-L (PI), Prabhakaran B (Co-PI), Ricard MD (Co-PI), Wimmer MT (Co-PI). EyeGait: A low-cost, multicamera system for pervasive gait-monitoring and fall prevention. Submitted to Texas Medical Research Collaborative Research Program in Medical Technologies, Submitted February 12, 2014, Total Costs: \$100,000.

Mariottini G-L (PI), Athitsos V (Co-PI), Ray CT (Co-PI), Ricard MD (Co-PI). Collaborative Research: Toward Accurate and Reliable Gait Monitoring For Predicting Signs of Elderly Decline. Submitted to National Science Foundation, June, 2013, Total Costs: \$711,735.

Hoefler, R (PI), Black BM (Co-PI), Ricard MD (Co-PI). Teen dating violence policy as prevention: A mixed methods, model testing and implementation analysis project. Submitted to National Institute of Justice, April 18, 2013, Total Costs: \$504,653, not funded.

Mariottini G-L (PI), Athitsos V (Co-PI), Prabhakaran B (Co-PI), Wimmer MT (Co-PI), Ray CT (Co-PI), Ricard MD (Co-PI). EyeGait: A low-cost, accurate, and easy-to-use system for gait-monitoring and fall prevention. Submitted to Texas Medical Research Collaborative Research Program in Medical Technologies, March 26, 2013, Total Costs: \$100,000.

Mariottini G-L (PI), Athitsos V (Co-PI), Ray CT (Co-PI), Ricard MD (Co-PI). Towards Robust Human-Monitoring Robotic System for Gait-based Fall Prediction. Submitted to National Science Foundation, October 10, 2012, Total Costs: \$683,263 (Indirect Costs: \$193,020).



Mariottini G-L (PI), Prabhakaran B (Co-Pi), Ray CT (Co-PI), Ricard MD (Co-PI), Gatchel RJ (Co-PI), West MT (Co-PI), Licciardone J (Co-PI). Full-Body Mobile Monitoring and Guidance System for Patient's Fall Prediction. Submitted to Texas Medical Research Collaboration Program, February 24, 2012, not funded, \$100,000.

Mariottini G-L (PI), Ray CT (Co-PI), Ricard MD (Co-PI), Athitsos V (Co-PI) Kamangar FA (Co-PI). NRI-Small: Accurate, Low-cost, and Safe Robotic Monitoring System for Gait-based Fall Prediction. Submitted to National Science Foundation, October 31, 2011, not funded, \$837,015.

Tommerdahl J (PI), Cavallo A (Co-PI), Ricard MD (Co-PI). Exploring the development of reasoning abilities in children aged 4 – 18. Submitted to National Science Foundation, January 6, 2011, not funded, \$449,985.

Mariottini G-L (PI), Ray CT (Co-PI), Ricard MD (Co-PI), Kamangar FA (Co-PI), Athitsos V (Co-PI). CPS Medium: Mobile Multi-Agent Human-Capturing System for Monitoring Human Motion. Submitted to National Science Foundation, March 22, 2011, not funded, \$1,735,000.

Gutemberg Guerra-Filho G (PI), Manfred Huber (Co-PI), Mark Ricard (Co-PI). Meta-Learning Languages for Human Movement and Sensory-Driven Systems. National Science Foundation, Cyber-Enabled Discovery and Innovation (CDI). \$900,000., not funded, currently under revision.

Huber M (PI), Co-PIs: Zaruba G, Levine D, Daniel K, Ray CT, Ricard MD. Medical Technology Survey and Analysis for the Ageing in Assisted Living. Submitted to: AltoFaro LLC, Amount Requested: \$99,999.00, not funded.

Ricard MD, Trowbridge CA. (2006). The role of muscular preactivation in optimizing joint mechanics during weight acceptance in sport. Submitted to: Delsys Inc. September, 2006. Amount: \$11,500.00, Not funded.

Ricard MD, & Eichstaedt C.B. (1988) Quantifying rearfoot motion and ground reaction forces in running for individuals with Down syndrome. Down Syndrome Research Fund, Not funded: \$9867.

Ricard MD. (1989). The relationship between patellofemoral deviations and muscular activation of the quadriceps. The Rockport Walking Institute, Not funded: \$6000.

Internal Grants

Pending

Active Grants

Previously Funded Grants

Caçola P, Ricard MD, Makedon F, Liu H. The iWrite Project. Funded by UTA Interdisciplinary Research Program, June 2015, UTA #2015-814, Amount funded: \$19,687.

Ricard MD. (1996). Effects of exercise and stretching on joint stiffness. Faculty Fellowship Grant. College of Physical Education. Brigham Young University, Funded: \$1,950.00

Ricard MD. (1994). Center of Pressure Patterns in Aerobic Dance. Faculty Fellowship Grant. College of Physical Education. Brigham Young University, Funded: \$2,664.00

Ricard MD. (1990). Quantification of load in aerobic dance. University Research Grant, Funded: \$4000.



- Ricard MD. (1989). The relationship between patellofemoral deviations and muscular activation of the quadriceps. University Research Grant, Funded: \$4000.
- Ricard MD. (1989). Comparison of impact forces in high and low impact aerobic dance. Small Grant, Funded: \$1000.
- Ricard MD. (1988). The relationship between impact forces, loading rates, skill repetitions and overuse injuries in gymnastics. University Research Grant, Funded: \$4000.
- Ricard MD. (1987). The effects of aerobic dance shoe design upon ground reaction forces and rearfoot motion in walking. University Research Grant, Funded: \$4000.
- Ricard MD. (1986). A Dynamic Biomechanical Evaluation of Lifting in the Workplace. Small Grant Program, Funded: \$898.

Previously Unfunded Grants

- Wijesundara MB (PI), Ricard MD (Co-PI), Gatchel. An objective clinical assessment tool to evaluate opioid addition risk in individuals with low back pain. Submitted to UTA Interdisciplinary Research Program, June 2016.
- Ashfaq A, Chen-Charpentier B, Kazewych MA, Kojouharov H, Ricard MD. Stress Effects on Bone Remodeling. Submitted to UTA Interdisciplinary Research Program, June 2015, not funded.
- Ricard MD. (2006). Effects of age on dynamic stability during the transition from stair descent to level walking. UTA: Research Enhancement Program Grant, submitted January, 2006, \$9,179.49, not funded.
- Ricard MD. (2002). Ankle Injury Evaluation and Rehabilitation Instrumentation. Faculty Research and Creative Activities Support Fund, Fall, 2002. Not Funded: \$4,900.00.
- Ricard MD. (1991). Center of pressure patterns in aerobic dance. University Research Grant, Not funded: \$4000.
- Ricard MD. (1989). Development of a menu driven computer program for use by students in applications of human movement analysis. Teaching Improvement Program Grant, Not funded: \$3000.
- Ricard MD. (1986). The effects of shoe design upon ground reaction forces and rearfoot motion. University Research Grant, Not funded: \$4000.

Research Creative Works

Computer Programming Languages, Skills and Specialty Software Development

- Fortran programming language
 - Pascal programming language
 - Visual Basic programming language
 - C and C++ programming language
 - Visual Basic.Net programming language
 - Visual C# .Net programming language
 - Visual C++ .Net programming language
 - MATLAB programming
 - Object Oriented Programming
- Developed Analog to Digital programming software for Keithley-Metrabyte cards, Data Translation cards, National Instruments cards.
- Developed 2d and 3d computer software for video analysis, kinematics and kinetics.
- Developed force plate computer software for gait analysis, balance analysis and vertical jump analysis.



Developed smoothing and interpolation computer software using cubic spline algorithm.

Developed filtering software using Butterworth 4th order recursive digital filter.

Developed Fast Fourier Transform (FFT) algorithm for frequency and power spectrum analysis.

Developed data collection and analysis software for isokinetic devices.

Developed data collection and analysis software to analyze viscoelastic materials.

Developed data collection and analysis for inversion platforms and electrical goniometers.

Developed data collection and analysis for accelerometers for impact analysis and muscle mechanomyograms.

Developed video visualization software for visualization of 3 dimensional video data using OpenGL and Microsoft Visual C and Visual Basic code. Programs read Ariel and Motion Analysis data formats and display body segments as 3D rendered truncated right circular cones. Images can be rotated and animated.

Developed 2D and 3D video analysis software for kinematic and kinetic analysis of motion, including: energy, work, power analyses, linear and angular momentum, joint reaction forces and muscle moments, muscle power and efficiency.

Developed generic cubic spline algorithm to smooth, compress or dilate curves for normalization of data.

Developed recursive 4th order Butterworth digital filter for use in smoothing video data and generating a linear envelope from EMG data.

Developed generic analog to digital data collection routine for use with video, force plates, force transducers, potentiometers, foot switches and EMG data.

Developed force plate analysis software for walking, running and jumping data analysis.

Developed EMG analysis software to accomplish full wave rectification, integration, amplitude normalization, muscle latency, and average function summary using a cubic spline algorithm.

Developed fast fourier transform (FFT) and median frequency routines for frequency analysis of video, force and EMG data.

Developed Real-Time data collection and analysis routines for use with the Biodex isokinetic machine. Routines calculate joint and muscle stiffness for ankle and knee, rate of force development, electromechanical delay and standard force-velocity curve analysis.

Teaching

Teaching Awards

[Nominated for Outstanding Academic Advisor Award](#), University of Texas at Arlington, April 10, 2019.

Nominated for UT Regents' Outstanding Teaching Award, January, 2016.

Nominated for UT Arlington Academy of Distinguished Teachers, January, 2014.

[President's Award for Excellence in Teaching](#), University of Texas at Arlington, April 26, 2010.

Nominated for Chancellor's Council Award for Excellence in Teaching, January 25, 2010.

Nominated for Outstanding Academic Advisor Award, University of Texas at Arlington, February 19, 2007.



Department of Physical Education Student Award for **Excellence in Teaching**, Brigham Young University, 1998.

College of Physical Education, Brigham Young University, **Excellence in Teaching Award**, 1997.

Teaching and Administrative Load

[Kinesiology Graduate Program Director](#), Fall 2005 – Spring 2017.

Kinesiology Graduate Program Advisor, Fall 2005 – present.

[Biomechanics Laboratory Director](#), Fall 2005 – present.

The University of Texas at Arlington

KINE 3301 Biomechanics of Human Movement (3 hrs)

KINE 5300 Research Methods in Kinesiology (3 hrs)

KINE 5305 Applied Statistics in Kinesiology (3 hrs)

KINE 4329/5329 Strength and Conditioning (3 hrs)

KINE 5328 Neuromuscular Physiology (3 hrs)

KINE 5320 Advanced Exercise Physiology (team taught 1/3 of course)

KINE 5350 Applied Biomechanics (3 hrs)

EDUC 5394 Understanding Classroom Research (3 hrs)

EDUC 5395 Designing Classroom Research (3 hrs)

EDUC 5397 Implementing & Disseminating Classroom Research (3 hrs)

Western Michigan University

HPER 295 Biomechanics sec 2 (3 hrs)

HPER 673 Biomechanics (3 hrs)

HPER 396 Muscular Strength & Endurance (3 hrs)

HPER 672 Laboratory Techniques in Exercise Science (3 hrs)

HPER 595 Analysis of Movement in Sport (3 hrs)

HPER 598 Readings in HPER (3 hrs)

HPER 676 Exercise Science Projects (3 hrs)

Brigham Young University

Administrative Assignment

[Human Performance Research Center Director](#) (3 hrs)

Courses Taught

PE 362 Kinesiology and Biomechanics of Sport sec 1 (3 hrs)

PE 365 Scientific Bases of Sport 2: Kinesiology

PE 625R Neural Factors of Rehabilitation (3 hrs)

PE 662 Mechanical Analysis of Sport (3 hrs)

PE 663 Research Techniques in Biomechanics (3 hrs)

PE 362 Kinesiology and Biomechanics of Sport sec 1 (4 hrs)

PE 362 Kinesiology and Biomechanics of Sport sec 2 (4 hrs)



Illinois State University

Courses Taught

HPR 104 Neuromuscular Relaxation (1 hr)
HPR 113 Personal Fitness (3 hrs)
HPR 139 Gymnastics (1 hr)
HPR 150.60 Major Gymnastics (1 hr)
HPR 282 Kinesiology (3 hrs)
HPR 342 Occupational Biomechanics (3 hrs)
HPR 352 Biomechanics of Human Movement (3 hrs)
HPR 445 Statistical Applications in HPR (3 hrs)
HPR 446 Advanced Statistics in HPR (3 hrs)

Southern Illinois University

Archery
Bowling

University of Maryland

Neuromuscular Relaxation
Trampoline
Gymnastics

Southeast Missouri State University

Gymnastics
Tumbling and Trampoline
Bowling
Golf
Archery
Obstacle Course
Orienteering

Sanford High School

9-12th grade Physical Education
9th grade Health

University and Professional Service

University

College of Nursing Dean Search Committee, Spring 2014.
Advisory Committee on College of Nursing and Kinesiology Department Merger, Spring 2014.
Graduate Advisor Assembly, Fall 2005 - present.
Graduate Assembly Committee, Fall 2005 – Spring 2013.
Joint Graduate Studies Committee of Biomedical Engineering (JGSC of BME), Spring 2013 – present.
Graduate Assembly Committee on Graduate Program Creation, Fall 2010 – Spring 2012.
Graduate Assembly Committee on Graduate Program Revision, chair, Fall 2012 – Spring



2013.

University Strategic Planning Committee, Spring 2012 – Fall 2012.

Graduate Recruiting Advisory Board (GRAB), Fall 2010 - Fall 2012.

Faculty Senate, Fall 2005 to Spring 2006.

University Appeals Board, WMU, Summer 2004 to Summer 2005.

Faculty General Education Council, BYU, Fall 1997 to Summer 2002.

Academic Departmental Review Teams, BYU, Winter 99 to Winter 2001, Reviewed

Linguistics Department Winter-Spring 99,

Reviewed Department of Theatre & Media Arts Fall 99 - Winter 2000.

BYU Ski Club Advisor, Fall 1998 to Fall 2001.

Academic Computing Strategic Planning Committee, Illinois State University, Spring 94.

College

College of Nursing and Health Innovation Associate Dean for Research Advisory Council, Fall 2014 – Spring 2016.

College of Nursing and Health Advisory Committee for Tenure and Promotion (ACTP) Fall 2014 – Spring 2016.

Kinesiology Chair Evaluation Committee, Fall 2013 – Spring 2014.

College of Education and Health Professions, UTA, Promotion and Tenure Committee, chair, Fall 2010 – Spring 2014.

College of Education and Health Professions, UTA, Research Methods Search Committee for C&I Department, Spring 2010.

College of Education and Health Professions, UTA, Promotion and Tenure Committee, Fall 2008 to present.

College of Education, UTA, Graduate Curriculum Committee, Fall 2006 to present.

College of Education, UTA, College Curriculum Committee, Fall 2006 to 2008.

College of Education, UTA, Dean's Faculty Advisor Committee, Fall 2005 to Spring 2010.

College of Education, UTA, Research Committee, Fall 2005 to Summer 2006.

College of Education, UTA, Tenure and Promotion Committee, Fall 2005 to Summer 2006.

Human Performance Research Center Director Fall 1996 to Summer 2002.

Human Performance Research Renovation Committee Chair, Winter 1998 to Fall 2001.

CAST Research Team, Illinois State University, Fall 86 to Spring 88.

CAST Computer Committee, Illinois State University, Spring 87 to Spring 94.

Department

Kinesiology Department Advisory Committee for Tenure and Promotion (ACTP), Fall 2005 to present.

Kinesiology Department Graduate Studies Committee (GSC), Fall 2005 to present.

Kinesiology Department Graduate Academic Committee (GAC), Fall 2016 to present.

Kinesiology Department, Assessment Committee, Spring 2011 – present.

Kinesiology Department, Exercise Physiology Search Committee, Fall 2008 – Spring 2009.

Kinesiology Department, Chair Exercise Physiology/Strength & Conditioning Search Committee, Fall 2006 – Spring 2007.

Kinesiology Department, Chairperson Search Committee, Fall 2006 – Spring 2007.

Educational Leadership and Policy Studies, Advisory Committee for Tenure and Promotion



(ACTP), Fall 2006 to Spring 2008.
Kinesiology Department, Chair Exercise Physiology Search Committee, Spring 2006.
Kinesiology Department Advisory to the Chair Committee (chair), Fall 2005 to present.
Kinesiology Department Research Enhancement Committee, Fall 2005 to present.
HPER Department Graduate Council, WMU, Fall 2003 to Spring 2005.
HPER Department Policies Committee, WMU, Fall 2003 to Spring 2005.
HPER Department Assessment Committee, WMU, Fall 2004 to Spring 2005.
PE Department Graduate Curriculum Committee, BYU, Fall 1994 to Spring 1998.
PE Department Professorial Rank Advancement Document Committee, BYU, Winter 1998 to Fall 2001.
PE Department Computer Committee, BYU, Spring 1995 to Fall 2000.
HPERD Graduate Core Evaluation Committee, Illinois State University, Fall 93 to Spring 94.
HPERD Ester Larson McGinnis Computer Software Committee, Chairperson, Illinois State University, Fall 92 to Spring 94.
HPERD Computer Committee, Illinois State University, Fall 86 to Spring 94
HPERD Graduate Student Selection Committee, Illinois State University, Spring 87 to Spring 90.
HPERD Honor's Program Committee, Illinois State University, Fall 87 to Spring 92.
HPERD Graduate Curriculum Committee, Illinois State University, Fall 88 to Spring 90.
HPERD Sport Psychology/Sociology Committee, Illinois State University, Spring, 87.
HPERD Kinesiology Search Committee, Chairperson, Illinois State University, Spring 89.
HPERD Graduate Task Force Committee, Illinois State University, Spring, 88.
HPERD Faculty Advisor Committee, Illinois State University, Fall 86 to Spring 92.
HPERD Assistant to Chair Search Committee, Illinois State University, Fall 90.

Ad-Hoc Committees

Kinesiology Department, Physiology of Exercise Program Review Committee (chair), Fall 2009-Spring 2010.

Professional Service

Editorial Review Board, Measurement in Physical Education and Exercise Science, Fall, 04 to present.

Guest Reviewer for Annals of Biomedical Engineering.

Guest Reviewer for Medicine & Science in Sports & Exercise.

Guest Reviewer for Journal of Applied Biobehavioral Research.

Reviewed: Music, emotion, and self-control: Does listening to uplifting music replenish self-control strength for exercise? Journal of Applied Biobehavioral Research. May, 2013.

Reviewed: Repeated bouts of exercise in patients with ACL reconstruction. Medicine & Science in Sports & Exercise. May, 2013.

Reviewed: Effects of a low-volume, step exercise program on mobility. Annals of Biomedical Engineering. January, 2013.



- Reviewed: The Effects of Seat-Tube Angle on Cycling and Subsequent Running Performance in Triathletes. Journal of Sports Science and Medicine. July, 2007.
- Reviewed: Test-Retest Reliability of Cardinal Plane Isokinetic Hip Muscle Strength Measurement in Physical Education and Exercise Science, March, 2007.
- Reviewed: Effects of progressive stretching on mobility, muscle tone and strength of hamstring muscles. Journal of Athletic Training, January, 2007.
- Reviewed: Decreasing time to reach maximal speed during 1-km all-out test using a new chainring. Medicine & Science in Sports & Exercise, August, 2006.
- Reviewed: Isokinetic scapular muscle performance in young elite gymnasts. Journal of Athletic Training, August 2006.
- Reviewed: Comparison of maximal rate of force development between judokas and untrained boys. Medicine and Science in Sports and Exercise, March, 2006.
- Reviewed: The effect of weighted vest walking on metabolic responses and ground reaction forces. Medicine and Science in Sports and Exercise, February, 2005.
- Reviewed: Reliability of a unilateral horizontal leg power test to assess stretch load tolerance Measurement in Physical Education and Exercise Science, November 2004.
- Reviewed: Delayed peroneal reaction time to sudden inversion stress with ankle taping or bracing. International Journal of Sports Medicine, June 2003.
- Reviewed: Technique and Timing in Women's Backward Two and One Half Somersault Tuck (205C) and the Men's Backward Two and One Half Somersault Pike (205B) 3m Springboard Dives Sport Biomechanics, May 2003.
- Reviewed: Technique and timing in the women's reverse two and one half somersault tuck (305C) and the men's reverse two and one half somersault pike (305B) 3m springboard dives. Sport Biomechanics. September, 2002.
- Symposium Moderator: (1998). Southwest American College of Sports Medicine. Las Vegas, NV.
- Reviewed: Cicciarella, C. (1998). Research Methods in Physical Education. Gorsuch Scarisbrick, Publishers. Scottsdale, AZ, 350 pages.
- Reviewed: Techniques used in high and low scoring hecht vaults performed at the 1995 World Gymnastics Championships. Journal of Applied Biomechanics. 7-25-98.
- Reviewed: Knee joint kinematics during the sidestep cutting manoeuvre: potential for injury in females. Medicine and Science in Sports and Exercise. 9-19-97.
- Reviewed: Effects of fatigue on impact force and neuromuscular characteristics during landing. Medicine and Science in Sports and Exercise.
- Reviewed: Effect of auditory rhythmic cueing on gait kinematic parameters of stroke patients. Journal of Aging and Physical Activity.
- Reviewed: Standardization of EMG normalization for shoulder: The use of the MVC for maximal neural activation. Journal of Orthopaedic Research.
- Hosted the MidWest Graduate Students in Biomechanics Symposium, Illinois State University, February 10, 1991.
- Consultant, United States Gymnastics Federation Biomechanics Committee, 1983-1985.

Memberships in Professional Organizations

- American Society of Biomechanics (ASB).
- American College of Sports Medicine (ACSM).



Gerontological Society of America (GSA).
International Society of Biomechanics (ISB).
International Society of Biomechanics in Sports (ISBS).
International Society of Electrophysiological Kinesiology (ISEK).

Professional Development

Computer & Statistics Programming Courses Taken Post-PhD

[Analyzing Repeated Measures Data Online Workshop GLM and Mixed Model Approaches](#), The Analysis Institute, Spring 2013.
Applied Computer Science 368, Topics in Systems – Object Oriented Computer Programming, Illinois State University, 3 Credits, Summer 1992.
Applied Computer Science 275, C as a Second Language, Illinois State University, 3 Credits, Fall 1992.
Applied Computer Science 278, Data Structures, Illinois State University, 3 Credits, Spring 1993.

Professional Workshops

Some Basics of Knee Joint Mechanics, International Society of Biomechanics XVII Congress, Calgary, Canada, August 8-13, 1999.
Applications of Computer Simulation to the Teaching of Biomechanics, I XVII Congress, Calgary, Canada, August 8-13, 1999.
Filtering of Kinesiological Data: A Biomechanist's Perspective. American Society of Biomechanics Twentieth Annual Meeting, Georgia Tech University, Atlanta, Georgia, October 19-19, 1996.
Biology, Physiology and Morphology of Bone. American Society of Biomechanics Twentieth Annual Meeting, Georgia Tech University, Atlanta, Georgia, October 19-19, 1996.
A Practical Guide to Electromyography for Biomechanists, International Society of Biomechanics XVth Congress, University of Jyväskylä, Jyväskylä, Finland, July 1, 1995.
3-D Reconstruction of Human Motion: Theoretical and Practical Aspects, International Society of Biomechanics XVth Congress, University of Jyväskylä, Jyväskylä, Finland, July 1, 1995.
Data Acquisition Seminar, Keithley-Metrabyte, Salt Lake City, Utah, August 3-8, 1995
Surface Electromyography: What's New? International Society of Electrophysiological Kinesiology, Sheraton Inner Harbor Hotel, Baltimore, MD, August 12, 1990.
ASYST Scientific Programming Language, June 1-31, St. Louis, Missouri, 1989.
College of Applied Science and Technology, Computer Workshop, Illinois State University, Summer, 1988.
Proposal Writing Workshop, Office of Research and Sponsored Programs, Illinois State University, Summer, 1987.