CURRICULUM VITA

Timothy R. Derrick
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BUSINESS ADDRESS
Iowa State University
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EDUCATION

Doctor of Philosophy
University of Massachusetts, Amherst, MA
Department of Exercise Science
Graduation Date: September 1996.
Concentration: Biomechanics.
Secondary Areas: Muscle Mechanics, Motor Integration and Exercise Physiology.
Dissertation: "Impact Shock Attenuation During Running".
Advisor: Joseph Hamill, Ph.D.

Master of Science
University of Oregon, Eugene, OR
Department of Exercise and Human Movement Science
Graduation Date: August 1991.
Concentration: Biomechanics.
Secondary Area: Motor Control.
Thesis: "The Analysis of Time-Series Data Using Correlation Techniques".
Advisor: Barry T. Bates, Ph.D.

Bachelor of Science
University of Oregon, Eugene, OR
Department of Exercise and Human Movement Science
Graduation Date: June 1988.
Major: Physical Education and Human Movement Studies
Emphasis: Biomechanics.

EMPLOYMENT

2003-present	Associate Professor at Iowa State University, Department of Health and Human Performance/Biomedical Engineering.
1996 – 2003	Assistant Professor at Iowa State University, Department of Health and Human Performance/Biomedical Engineering.
1991-1996	Research assistant at the University of Massachusetts Biomechanics Laboratory. Responsibilities included directing laboratory activities, supervising projects, data collection and software development.
1993-1996	Consultant for New Balance Athletic Shoe, Inc. Biomechanical testing and evaluation of athletic shoes and consultations concerning the development of a biomechanics laboratory.
1995	Consultant for Exeter Research, Inc. Software development, methodological consultation and shoe testing.
1995	Software development and hardware consultation for the Department of Physical Therapy, Springfield College, Springfield, Massachusetts. Responsibilities included development of an electromyography data collection and analysis system for use in research and undergraduate laboratories.
1992-1994	Software development for the Biofeedback Laboratory, Department of Exercise Science, University of Massachusetts. Programs included the collection and analysis of data for the study of tremor.
1990-1991	Research assistant at the University of Oregon Biomechanics/Sports Medicine Laboratory. Responsibilities included software development and analysis of biomechanical data.

TEACHING

2003-present	**Functional Anatomy** (ISU, undergraduate level) The structure, function and mechanical properties of the skeletal, muscular and nervous systems.
2000-2002	**Doctoral Seminar** (ISU, graduate level) Organization of lectures for bi-weekly seminars in Health and Human Performance
1997-present	**Quantitative Analysis** (ISU, graduate level) Application of the principles of mechanics to the collection and analysis of human motion. Topics include: signal processing, electromyography, force sensors, 2D and 3D kinematics and joint moments.
1997-present	**Biomechanics** (ISU, undergraduate level) Biomechanics of human movement. Both classroom lectures and laboratory exercises.
1995-96	**Advanced Biomechanics** (UMASS, graduate level) An introduction to laboratory equipment and quantitative techniques pertaining to the acquisition and analysis of biomechanical data
1995-96	**Journal Club** (UMASS, graduate level) Organization of lectures and discussions on current topics pertaining to biomechanics and motor control
1995	**Kinesiology** (UMASS, undergraduate level) The basic concepts of the biomechanics of human motion. Both classroom lectures and laboratory exercises
1994	**Computer Programming** (UMASS, graduate level) Techniques of computer programming in the QuickBASIC language with emphasis on the analysis of typical biomechanical data.

PROFESSIONAL MEMBERSHIPS

1994-present	International Society of Biomechanics.
1993-present	American College of Sports Medicine.

1992-1993	American College of Sports Medicine New England Chapter.
1990-1991	American College of Sports Medicine Northwest Chapter.

RESEARCH

Focus

To improve human health by gaining an understanding of how forces acting on the human body can be modified to reduce the potential for injury or increase the potential for positive changes in biological tissue, especially bone.

Invited Publications

1. Derrick, T.R. (2004). The effects of knee contact angle on impact forces and accelerations. *Medicine and Science in Sports and Exercise.* 36(5), 832-837.
2. Derrick, T.R. (October, 2000). They hit the ground running. *BioMechanics,* 7(10), 18-21. Cover Story.
3. Hamill, J. and Derrick, T.R. (1996). The mechanics of foot orthoses for runners. *BioMechanics*, 3(2), 123-126.
4. Derrick, T.R. and Hamill, J. (October, 1995). Riding the shock wave. *BioMechanics*, 2(9), 75-77.

Publications

5. Liu, A., Nester, C., Ward, E., Howard, D., Cocheba, J., Derrick, T. and Patterson, P. (2006). Kinematics of thirteen bones of the foot–a 'walking' cadaver study. *Journal of Biomechanics, http://www.sciencedirect.com/dx.doi.org/10.1016/j.jbiomech.2006.09.008.*
6. Gillette, J.C., Stevermer, C.A., Raina, S., and Derrick, T.R. (2005). Support torques during simulated sit-to-stand movements. *Biomedical Sciences Instrumentation*, 41: 7-12.
7. Budihardjo, I. and Derrick, T.R. (2004). Influence of a constraining barrier on L5/S1 compressive force during manual lifting. *Proceedings ITB*, Vol. 36B, No. 2, 163-175.
8. Gillette, J.C., Stevermer, C.A., Raina, S., and Derrick, T.R. (2004). NMES-assisted standing model from varied seated postures. *Biomedical Sciences Instrumentation*, 40, 30-35.
9. Besancon, M.F., Conzemius, M.G., Derrick, T.R. and Ritter, M.J. (2003). Comparison of vertical forces in normal greyhounds between force platform and the pressure walkway measurement systems. *Veterinary Comparative Orthopaedics and Traumatology*. 16, 153-157.
10. Marsolais, G.S., McLean, S.P., Derrick, T.R. and Conzemius, M.G. (2003). Kinematic comparison of swimming and terrestrial motion in normal dogs and dogs stabilized for cranial cruciate ligament rupture. *Journal of the American Veterinary Medical Association*. 222, 739–743.

11. Mercer, J.A., DeVita, P., Derrick, T.R. and Bates, B.T. (2003). The individual effects of stride length and stride frequency changes on shock attenuation during running. *Medicine and Science in Sports and Exercise*. 35(2), 307-313.
12. Thomas, J.M. and Derrick, T.R. (2003). The effects of step uncertainty on impact peaks, shock attenuation, and knee/subtalar synchrony while running on a treadmill. *Journal of Applied Biomechanics*, 19(1), 60-70.
13. Derrick, T.R., DeReu, D.W. and McLean, S.P. (2002). Impacts and kinematic adjustments during an exhaustive run. *Medicine and Science in Sports and Exercise*, 34(6), 998-1002.
14. Derrick, T.R., Caldwell, G.E. and Hamill, J. (2000). Modeling the stiffness characteristics of the human body while running with various stride lengths. *Journal of Applied Biomechanics*, 16(1), 36-51.
15. Derrick, T.R., Hamill, J. and Caldwell, G.E. (1998). Energy absorption of impacts during running at various stride lengths. *Medicine and Science in Sports and Exercise*, 30(1), 128-135.
16. Mahar, A.T., Derrick, T.R., Hamill, J. and Caldwell, G.E. (1997). Impact shock attenuation during in-line skating. *Medicine and Science in Sports and Exercise*, 29(8), 1069-1075.
17. Hamill, J., Caldwell, G.E. and Derrick, T.R. (1997). A method for reconstructing digital signals using Shannon's sampling theorem. *Journal of Applied Biomechanics*, 13, 226-238.
18. Heil, D.P., Derrick, T.R. and Whittlesey, S. (1997). The relationship between preferred and optimal positioning during submaximal cycle ergometry. *European Journal of Applied Physiology*, 75(2), 160-165.
19. Li, L., Derrick, T.R. and Kroll, W. (1997). Neuromuscular adaptation to fatigue in knee muscles during isometric contractions. *Clinical Kinesiology*, 51(3), 52-57.
20. Hamill, J., Derrick, T.R. and Holt, K.G. (1995). Shock attenuation and stride frequency during running. *Human Movement Science*, 14, 45-60.
21. Derrick, T.R., Bates, B.T. and Dufek, J.S. (1994). Comparative evaluation of time-series data sets using the Pearson product-moment correlation coefficient. *Medicine and Science in Sports and Exercise*, 26(7), 919-928.

Submitted

1. Zhang, S., Evans, W., Derrick, T.R. and Yu. Y. Impact shock attenuation during landings from different heights. *Sports Biomechanics.* In Review.
2. Goetz, J.E., Derrick, T.R., Pedersen, D.R., Robinson, D.A., Conzemius, M.G. and Brown, T.D. Hip joint contact force in the emu (Dromaius novaehollandiae) during normal level walking. *Journal of Biomechanics.* In Review.
3. Edwards, W.B., Ward, E.D., Mearden, S.A. and Derrick, T.R. The use of external transducers for estimating internal bone loading during impact activity. *Journal of Biomechanics.* In Review.

4. Miller, R.H., Meardon, S.A., Derrick, T.R. and Gillette, J.C. Continuous relative phase variability during an exhaustive run in runners with a history of iliotibial band syndrome. *Gait and Posture.* In Review.
5. Gillette, J.C., Stevermer, K.T., Meardon, S.A., Derrick, T.R. and Schwab, C.V. Upper extremity and lower back torques during carrying tasks in farm children. *Journal of Applied Biomechanics*. Conditionally accepted.

Books

1. Hamill, J., Derrick, T.R. and Elliot, E.H. (eds.) (1993). *Biomechanics in Sports XI*. Proceedings of the XIth Symposium of the International Society of Biomechanics in Sports. University of Massachusetts Amherst, Amherst, Massachusetts.

Book Chapters

1. Derrick, T.R. (2004). Chapter 11. Signal Processing. In: *Research Methods for Biomechanics*, (pp. 227-238), Robertson, D.G.E., Hamill, J. Caldwell, G.E., Kamen, G. (eds). Human Kinetics Publishers, Champaign, Illinois.
2. Derrick, T.R. and Thomas, J.M. (2004). Chapter 7. Time-Series Analysis: The crosscorrelation function. In: *Innovative Analyses of Human Movement*, (pp. 189-205), Stergiou, N. (ed). Human Kinetics Publishers, Champaign, Illinois, 189-205.
3. Hamill, J., Holt, K.G. and Derrick, T.R. (1995). Chapter 2. Biomechanics of the foot and ankle. In: *Rehabilitation of the foot and ankle* (pp. 25-44), Sammarco G.J. (ed). Mosby, St. Louis, Missouri.

Other

1. Derrick, T.R., Caldwell, G.E. and Hamill, J. (2004). Modeling the stiffness characteristics of the human body while running with various stride lengths. In: *Research Methods for Biomechanics*. Robertson, D.G.E., Hamill, J., Caldwell, G.E., Kamen, G. (eds). Human Kinetics Publishers, Champaign, Illinois. Abstracted from *Journal of Applied Biomechanics*, 16(1), 36-51.
2. Derrick, T.R., Mercer, J.A., (2004). Ground/Foot Impacts: Measurement, Attenuation and Consequences. Symposium introduction in: *Medicine and Science in Sports and Exercise*, 36(5).
3. Derrick, T.R., Hamill J. and Caldwell, G.E. (2000). Energy absorption of impacts during running at various stride lengths. In: T.J. Housh and D.J. Housh (Eds) *Introduction to Exercise Science*. Allyn and Bacon, Boston, MA. Abstracted from *Medicine and Science in Sports and Exercise* 30:1, 28-135.
4. Derrick, T.R., Hamill, J. and Caldwell, G.E. (1998). Energy absorption of impacts during running at various stride lengths. *1998 Yearbook of Sports Medicine*, (2)SM 24, Abstracted from *Medicine and Science in Sports and Exercise* 30:1, 128-135.

Conference Proceedings

1. Edwards, W.B., Meardon S.A., Ward, E.D., and Derrick, T.R. (August, 2007). Anisotropic stress analysis of the second metatarsal during the stance phase of gait. Submitted to the *American Society of Biomechanics 31st Annual Meeting*, San Francisco, California.

2. Edwards, W.B., Meardon S.A., Ward, E.D., and Derrick, T.R. (August, 2007). Anisotropic stress analysis of the second metatarsal during the stance phase of gait. Submitted to the *American Society of Biomechanics 31st Annual Meeting*, San Francisco, California.
3. Meardon S.A., Edwards, W.B. and Derrick, T.R. (August, 2007). Kinematic correlates of the free moment and combined loads during running. Submitted to the *American Society of Biomechanics 31st Annual Meeting*, San Francisco, California.
4. Miller, R.H., Caldwell, G.E. and Derrick, T.R. (August, 2007). Determining vertical ground reaction forces without a force platform using a mass-spring-damper model. Submitted to the *American Society of Biomechanics 31st Annual Meeting*, San Francisco, California.
5. Gillette, J. C., T. R. Derrick, C. V. Schwab, S. A. Freeman, C. A. Stevermer, and S. A. Meardon. (2007). Evaluation of occupational carrying task for farm youth. National Institute for Farm Safety International Meeting Penticton, British Columbia, Canada. NIFS Paper No. 2007-03. NIFS Madison, WI 53706.
6. Derrick, T.R., Thomas, J.M., and Gillette, J.C. (May, 2007). Internal knee forces during running off a platform. Accepted at the American College of Sports Medicine, New Orleans, LA. *Medicine & Science in Sports & Exercise*.
7. Miller, R.H., Gillette, J.C. and Derrick, T.R. (May, 2007). Sensitivity of muscle force predictions during overground running to choice of optimization algorithm. Accepted at the American College of Sports Medicine, New Orleans, LA. *Medicine & Science in Sports & Exercise*.
8. Sealine, B.J, Meardon, S.A., Edwards, W.B and Derrick (May, 2007). Midsole cushioning during running on various surfaces. Accepted at the American College of Sports Medicine, New Orleans, LA. *Medicine & Science in Sports & Exercise*.
9. Meardon, S.A., Edwards, W.B., Brubaker, M.L. Haberkorn, AE. and Derrick, T.R. (May, 2007). Determinants of peak tibial acceleration in running. Accepted at the American College of Sports Medicine, New Orleans, LA. *Medicine & Science in Sports & Exercise*.
10. Julius, B., Edwards, W.B., Meardon, S.A., Johannsen, N. Macaluso, F. and Derrick, T.R. (May, 2007). Evidence of bone turnover following an acute impact bout. Accepted at the American College of Sports Medicine, New Orleans, LA. *Medicine & Science in Sports & Exercise*.
11. Goetz, J., Derrick, T.R., Pedersen, D., Robinson, D. A., Conzemius, M.G. and Brown, T.D. (August, 2006). Anatomy-based model of normal emu during gait. *Proceedings of the American Society of Biomechanics 30th Annual Meeting*, Blacksburg, Virginia.
12. Edwards, W.B., Meardon, S.A., Ward, E.D., and Derrick, T.R. (August, 2006). The use of acceleration and external forces to estimate bone strain. *Proceedings of the American Society of Biomechanics 30th Annual Meeting*, Blacksburg, Virginia.
13. Meardon, S.A., Miller, R.H., Derrick, T.R. and Gillette, J.C. (August, 2006). Lower Extremity Coupling variability during an exhaustive run in individuals with iliotibial

band syndrome. *Proceedings of the American Society of Biomechanics 30th Annual Meeting*, Blacksburg, Virginia.

14. Meardon, S.A., Gillette, J.C., Stevermer, C.A., Miller, R.H., Derrick, T.R. and Schwab, C.V. (May, 2006). Age and condition related differences during carrying tasks in farm youth. American College of Sports Medicine, Denver, CO. *Medicine & Science in Sports & Exercise***.** 38(5) Supplement:S238.
15. Nsiah, B.A., Edwards, W.B., Meardon, S.A., Ward, E. and Derrick, T.R. (May, 2006). Spectral analysis of impact accelerations using bone versus surface mounted accelerometers. American College of Sports Medicine, Denver, CO. *Medicine & Science in Sports & Exercise*. 38(5) Supplement:S267.
16. Gillette, J.C., Stevermer, C.A., Meardon, S.A. Derrick, T.R., Schwab, C.V. (May, 2006). Upper extremity torques during carrying tasks in farm children. American College of Sports Medicine, Denver, CO. *Medicine & Science in Sports & Exercise.* 38(5) Supplement:S172.
17. Derrick, T.R. and Johnston, A.M. (May, 2006). Impact attenuation in older adult runners. American College of Sports Medicine, Denver, CO. *Medicine & Science in Sports & Exercise*. 38(5) Supplement:S65.
18. Conzemius, M.G., Robinson, D.A., Thies, L.I., Evans, R., Derrick, T.R., Goetz, J., Pederson D. and Brown, T.D. (March, 2006). Characterization of ground reaction forces in the normal emu. *52nd Annual Meeting of the Orthopaedic Research Society*, Chicago, Illinois.
19. Conzemius, M.G., Robinson, D.A., Thies L.I., Waxman, A., Evans, R., Derrick, T.R., Goetz, J., Pederson D. and Brown, T.D. (February, 2006). Characterization of ground reaction forces in the normal emu. *American College of Veterinary Surgery*, Keystone, CO.
20. Derrick, T.R., Gillette, J.C. and Thomas, J.M. (August, 2005). Extraction of the impact from vertical ground reaction forces. *The XXth International Society of Biomechanics*, Cleveland, Ohio.
21. Meardon, S.A., Derrick, T.R. and Tauber, T.J. (August, 2005). The effects of mechanosensitivity on the prediction of bone formation rate. *The XXth International Society of Biomechanics*, Cleveland, Ohio.
22. Anmin L., Nester, C., Ward, E., Howard, D., Cocheba, J., Derrick T. and Patterson, P. (August, 2005). In vitro study of foot kinematics using a walking simulator. *The XXth International Society of Biomechanics*, Cleveland, Ohio.
23. Thomas, J.M, Derrick, T.R. and Gillette, J.C. (June, 2004). The effect of knee angle at contact on impacts while running off a raised platform. American College of Sports Medicine, Indianapolis, IN. *Medicine and Science in Sports and Exercise*, 36(5) Supplement: S57.
24. Gillette, J.C., Stevermer, C.A., Raina, S. and Derrick T.R. (April, 2004). The effects of initial seated posture on simulated NMES-assisted sitting-to-standing movements. 41st Annual Rocky Mountain Bioengineering Symposium, Fort Collins, CO.

25. Liu, A., Nester, C.J., Ward, E., Howard, D., Derrick, T. Cocheba, J. and Patterson, P. (April, 2004). Development of an improved rigid body model of the foot. Foot and Ankle Research Retreat II, Measuring Foot Motion: Forward and Inverse Dynamics, Los Angeles, CA.

26. Derrick, T.R., Tauber, T.J. and Thomas J.M. (May, 2004). Frequency distribution of leg impacts during daily activity and exercise. American College of Sports Medicine, Indianapolis, IN. *Medicine and Science in Sports and Exercise***,** 36(5) Supplement: S294-S295.

27. Derrick, T.R., Budihardjo I. and Patterson P. (May, 2003). Influence of knowledge of load magnitude on L5/S1 compressive forces during lifting. American College of Sports Medicine, San Francisco, CA. *Medicine and Science in Sports & Exercise*, 35(5) Supplement 1: S266.

28. Marsolais G.S., McLean S., Derrick T., Napier A., Conzemius M.G. (October, 2002). Kinematic comparison of swimming and terrestrial motion in normal dogs and dogs stabilized for cranial cruciate ligament rupture. American College of Veterinary Surgery, San Diego, CA.

29. Gillette J.C., Derrick, T.R., Quick, N.E. and Shapiro, R. (August, 2002). Lower back moment and postural parameter relationships during asymmetric lifting. *The Fourth World Congress of Biomechanics*, Calgary, Canada.

30. Thomas, J.M. and Derrick, T.R. (August, 2002). The effects of step uncertainty on impact peaks, shock attenuation, and knee/subtalar synchrony while running on a treadmill. *The Fourth World Congress of Biomechanics*, Calgary, Canada.

31. Rogers, J.L., McLean, S.P. and Derrick, T.R. (May, 2002). Gait changes with unilateral and bilateral upper extremity loading. American College of Sports Medicine, St. Louis, Missouri**.** *Medicine and Science in Sports & Exercise,* 34(5) Supplement 1:S279.

32. Marsolais G.S., McLean S., Derrick T., Napier A., Conzemius M.G. (March, 2002). Kinematic Comparison of Swimming and Terrestrial Motion in Normal Dogs and Dogs Stabilized for Cranial Cruciate Ligament Rupture. (Podium Presentation Award) The 29th Annual Conference of the Veterinary Orthopedic Society, Canyons Ski Resort, Utah.

33. Zhang, S., Evans,W., Derrick, T.R. and Yu. Y. (May, 2001). Impact shock attenuation during landings from different heights. American College of Sports Medicine, Baltimore, Maryland**.** *Medicine and Science in Sports and Exercise,* 33(5) Supplement 1:S42.

34. Hamill, J., Derrick, T.R. and McClay, I. (August, 2000). Joint stiffness during running with different footfall patterns. *Proceedings of the Eleventh Biennial Conference of the Canadian Society for Biomechanics*, Montreal, Canada.

35. Gillette, J.C., and Derrick, T. R. (May, 2000). Analyzing three-dimensional lifting motions using upper and lower body formulations. *American College of Sports Medicine*, Indianapolis, Indiana.

36. Derrick, T.R., DeReu, D.W. and McLean, S.P. (May, 2000). Impacts and kinematic adjustments during an exhaustive run. American College of Sports Medicine, Indianapolis, Indiana**.** *Medicine and Science in Sports and Exercise.*
37. Li, L. and Derrick, T. (June, 2000). The equilibrium points of a mass-spring model of running while using different stride lengths, in proceedings of the North American Society for Psychology of Sport and Physical Activity conference, San Diego, California, USA. *J. Sports & Exer. Psych.* (Vol. 22 supplement), p. s69.
38. Derrick, T.R., Hamill, J. and Bridges, J.T. (August, 1999). Filtering characteristics of the body during inline skating. *The XVIIth International Society of Biomechanics*, Calgary, Canada.
39. Mercer, J.A., Devita, P., Derrick, T.R. and Bates, B.T. (August, 1999). Shock attenuation during running at different stride lengths and frequencies. *The XVIIth International Society of Biomechanics*, Calgary, Canada.
40. Gregg, M.T. and Derrick, T.R. (August, 1999). Wheelchair vibrations using shock-absorbing front casters. *The XVIIth International Society of Biomechanics*, Calgary, Canada.
41. Hahn, M.E., Pinckney, D.T., Gregg, M.T. and Derrick, T.R. (August, 1999) Wheelchair mobility using shock-absorbing front casters. *The XVIIth International Society of Biomechanics*, Calgary, Canada.
42. Hahn, M.E., McLean, S.P., Derrick, T.R and Allyn, D.A. (August, 1998). Effect of bench height on resultant joint moments in older adults performing a sit-to-stand task. *The Third North American Congress on Biomechanics*, Waterloo, Canada.
43. Holthe, M., Baker, A., Hahn, M., Gregg, M., Pinckney, D., Fox, A., Devries, S., Derrick, T. and McLean S. (August, 1998). Energy absorption characteristics of different volleyball court surfaces. *The Third North American Congress on Biomechanics*, Waterloo, Canada.
44. Derrick, T.R. (August, 1998). Circular continuity of non-periodic data. *The Third North American Congress on Biomechanics*, Waterloo, Canada.
45. Derrick, T.R. and Bode, B.R. (May, 1998). The transmission of shock while inline skating. American College of Sports Medicine, Orlando, Florida. *Medicine and Science in Sports and Exercise*, 30(5) Supplement: 183.
46. Heiderscheit, B.C., Hamill, J. and Derrick, T.R. (May, 1997). Does Q-angle influence lower extremity kinematics and the free moment during running. American College of Sports Medicine, Denver, Colorado. *Medicine and Science in Sports and Exercise* 29(5) Supplement: 82.
47. Swanson, S.C., Derrick, T.R., Whittlesey, S., Frappier, J. and Caldwell G.E. (June, 1997). Joint kinetics during incline treadmill running with an elastic loading device. American College of Sports Medicine, Denver, Colorado. *Medicine and Science in Sports and Exercise*, 29(5) Supplement: 81.

48. Derrick, T.R., Hamill, J. and Caldwell, G.E. (August, 1996). Energy absorption during running at various stride frequencies. *Proceedings of the Ninth Biennial Conference of the Canadian Society for Biomechanics*, Vancouver, Canada.

49. Swanson, S.C., Derrick, T.R., Knight, C.A., Frapier J. and Caldwell, G.E. (August, 1996). Joint moments and powers in level and incline treadmill running. *Proceedings of the Ninth Biennial Conference of the Canadian Society for Biomechanics*, Vancouver, Canada.

50. Derrick, T.R., Knight, C.A., Heidersheit, B.C. and Hamill, J. (June, 1996). Spectral decomposition of vertical ground reaction force curves. Proceeding of the *XIVth International Society of Biomechanics in Sport*, Funchal, Portugal, 169-172.

51. Hamill, J., Derrick, T.R. and Caldwell G.E. (May, 1996). Reconstructing digital signals using the Shannon sampling theorem algorithm. American College of Sports Medicine, Cincinnati, Ohio. *Medicine and Science in Sports and Exercise*, 28(5) Supplement: 47.

52. Derrick, T.R., Caldwell, G.E. and Hamill J. (July, 1995). The effects of simulated MUAP shape, rate and variability on the power spectrum. Proceedings of the *XVth International Society of Biomechanics*, Jyväskylä, Finland, 212-213.

53. Mahar, A.T., Derrick, T.R., Hamill, J. and Caldwell, G.E. (July, 1995). Kinematic analysis of segmental shock attenuation at varying stride frequencies. Proceedings of the *XVth International Society of Biomechanics*, Jyväskylä, Finland, 584-585.

54. Li, L., Derrick, T.R. and Kroll, W. (July, 1995). Frequency shift: Agonist and antagonist EMG activities of knee muscles during fatigue. Proceedings of the *XVth International Society of Biomechanics*, Jyväskylä, Finland, 556-557.

55. Derrick, T.R., Hamill, J. and Caldwell, G.E. (May, 1995). The application of windowing functions to biomechanical data sets. *American College of Sports Medicine*, Minneapolis, Minnesota.

56. Mahar, A.T., Derrick, T.R., Hamill, J. and Caldwell, G.E. (June, 1995). Evaluation of in-line skating for rehabilitation: impact shock considerations. *Gait & Posture* 3(2):109.

57. Elliott, E.H., Hamill, J. and Derrick, T.R. (August, 1994). The influence of multiple lifts on load kinematics. Proceedings of the *Eighth Biennial Conference of the Canadian Society for Biomechanics*, Calgary, Canada, 142-143.

58. Heil, D.P., Derrick, T.R. and Whittlesey, S. (May, 1994). Seat and torso position optimization in trained cyclists during steady-rate ergometer cycling. *American College of Sports Medicine*, Indianapolis, Indiana.

59. Hamill J., Derrick, T.R. and Holt, K.G. (August, 1994). Impact shock attenuation and stride frequency relationships. Proceedings of the *Eighth Biennial Conference of the Canadian Society for Biomechanics*, Calgary, Canada, 174-175.

60. Lange, G., Derrick, T.R. and Hamill, J. (1993). The effect of shoe type on a golfer's stability. *Biomechanics in Sports XI*, Amherst, Massachusetts, 214-216.

61. Foti, J., Hamill, J., Foti, T. and Derrick, T.R. (1993). The effect of step-height on the knee angles and in-shoe pressure distributions during step-aerobics. *Biomechanics in Sports XI*, Amherst, Massachusetts, 248-251.

62. Elliott, E.H., Hamill, J. and Derrick, T.R. (1993). In-shoe pressure distribution during ergometer rowing in novice and experienced rowers. *Biomechanics in Sports XI*, Amherst, Massachusetts, 349-351.

63. Derrick, T.R. and Bates, B.T. (1993). Evaluation of temporal similarity using correlational techniques. Proceedings of the *XIVth International Society of Biomechanics Congress*, Paris, France, 332-333.

64. Elliott, E.H., Hamill, J., Derrick, T.R. and Foti T. (1993). Influence of shoe and surface interaction on running economy. Proceedings of the *XIVth International Society of Biomechanics Congress*, Paris, France, 388-389.

65. McCaw, S.T., Hamill, J., Bates, B.T. and Derrick, T.R. (1993). The effect of shoe hardness and treadmill stiffness on rearfoot kinematics during running. Proceedings of the *XIVth International Society of Biomechanics Congress*, Paris, France, 840-841.

66. Foti, T., Derrick, T.R. and Hamill J. (1992). Influence of footwear on weight-acceptance plantar pressure during walking. Proceedings of the *International Symposium of Biomechanics in Sports*, Milan, Italy, 243-246.

67. Derrick, T.R. and Hamill, J. (1992). Ground and in-shoe reaction forces during walking. Proceedings of the *Second North American Congress on Biomechanics*, Chicago, Illinois, 267-268.

68. Dufek, J.S., Derrick, T.R. and Bates, B.T. (1992). Variability of two types of landings. Proceedings of the *Second North American Congress on Biomechanics*, Chicago, Illinois, 551-552.

69. Caster, B., Derrick, T. and Bates, B.T. (1992). Temporal relationships between knee flexion and pronation in running: Assessment of pronation event selection. *Journal of Biomechanics, 25: 6, 670*.

Invited Presentations

1. Derrick, T.R. (April, 2005). Impact transmission during running. University of Delaware, Newark, Delaware. Sponsored by Dr. Irene McClay Davis, (honorarium).

2. Derrick, T.R. (April, 2003). Tutorial for the Alliance for Health, Physical Education, Recreation and Dance Conference. Signal processing: An intuitive approach. Philadelphia, Pennsylvania.

3. Derrick, T.R., Mercer, J.A., Hardin, E.C. Bogert, A.J. and Hreljac A. (May, 2002). Ground/foot impacts: Measurement, attenuation and consequences**.** Symposium at the American College of Sports Medicine, St. Louis, MO. *Medicine and Science in Sports and Exercise*. 34(5) Supplement 1:S88.

4. Derrick, T.R. (April, 2001). Attenuation of impacts in the human body. University of Nevada Las Vegas, Las Vegas, Nevada. Sponsored by Dr. John Mercer, (honorarium).

5. Derrick, T.R. (March, 2000). Attenuation of shock in the human body. *Midwest Graduate Students' Biomechanics Symposium*, Illinois State University, Normal, IL, (honorarium).
6. Hamill, J. and Derrick T.R. (August, 1999). Shock attenuation and transmission during running. *The XVIIth International Society of Biomechanics*, Calgary, Canada.
7. Derrick, T.R. (April, 1997). Dukes Lecture: Impact shock attenuation during running. *H. Hugh Dukes Club*, Iowa State University, Ames, Iowa.
8. Derrick, T.R. (November, 1995). Impacts during running. *New England College of Sports Medicine Annual Meeting*, Fitchburg, MA.

Presentations

1. Brubaker M.L., Haberkorn, A.E. and Derrick, T.R. (April, 2006). The effects of changing voluntary impacts of experienced runners. Iowa State University Honors Presentation, Ames, Iowa.
2. Edwards, W.E., Johannsen, N., Macaluso, F., Meardon, S. and Derrick, T.R. (March, 2006). Effects of impact loading on acute bone adaptation. *Midwest Graduate Students' Biomechanics Symposium*. Milwaukee, Wisconsin.
3. Meardon, S.A., Miller, R.H., Derrick, T.R. and Gillette J.C. (March, 2006). Examination of lower extremity variability during normal and fatigued running in individuals with and without iliotibial band syndrome. *Midwest Graduate Students' Biomechanics Symposium*. Milwaukee, Wisconsin.
4. Nsiah, B. and Derrick, T.R. (April, 2005). Noninvasive measurement of bone strain. Iowa State University McNair Scholar Presentation, Ames, Iowa.
5. Tauber, T.J. and Derrick, T.R. (April, 2005). Osteogenic activation during sport activities. Iowa State University Honors Presentation, Ames, Iowa.
6. Morin, T.J. and Derrick, T.R. (April, 2005). Selection of graft type for ACL surgery. Iowa State University Honors Presentation, Ames, Iowa.
7. Liu. A., Nester, C.J., Ward, E., Howard, D., Derrick, T.R., Cocheba, J. and Patterson, P. (August 2004). Dynamic cadaver model for a new understanding of rigid body foot kinematics. *International Society for Prosthetics and Orthotics*, Hong Kong.
8. Gillette, J.C., Stevermer, C.A., Raina, S. and Derrick, T.R. (June, 2004). Simulation of functional neuromuscular stimulation-assisted sit-to-stand from varied seated postures. *Centers for Advanced Research on Neurorehabilitation*, Fourth Annual Meeting, Lake Bluff, Illinois.
9. Derrick T.R., Tauber, T.J. and Thomas. J.M. (June, 2004). The influence of impact patterns on mechanosensitivity of human bone. *Centers for Advanced Research on Neurorehabilitation*, Fourth Annual Meeting, Lake Bluff, Illinois.
10. Ambrose, E. and Derrick, T.R. (April, 2003). Chiropractic practice across the lifespan. Iowa State University Honors Presentation, Ames, Iowa.

11. Derrick, T.R. and Gregg, M.T. (January, 2003). Wheelchair bumps with shock absorbing front casters. Rehabilitation Institute of Chicago, Northwestern University, Chicago, Illinois.
12. Dorenbush, R. and Derrick, T.R. (April, 2002). The effect of knee angle on lower impacts during a step down while running. Iowa State University Honors Presentation, Ames, Iowa.
13. Derrick, T.R., Budihardjo, I. and Patterson P. (February, 2002). Estimation of L5/S1 joint compressive forces during dynamic lifting activities. *Biomechanics Invitational Symposium*, Las Vegas, Nevada.
14. Thomas, J.M. and Derrick, T.R. (March, 2001). The effects of step uncertainty on impact peaks, shock attenuation, and knee/subtalar synchrony while running on a treadmill. *Midwest Graduate Students' Biomechanics Symposium*. Milwaukee, Wisconsin.
15. Darnold, S. and Derrick, T.R. (April, 2000). Subtalar/knee synchrony and impacts while running on various lengths of grass. Iowa State University Honors Presentation, Ames, Iowa.
16. Gregg, M.T. and Derrick, T.R. (March 2000). Wheelchair mechanics while traversing surface irregularities. *Midwest Graduate Students' Biomechanics Symposium.* Normal, Illinois.
17. Gillette, J.C., Huston, J.C. and Derrick, T.R. (August, 1997). The biodynamics of the lumbar spine during lifting. *The National Biomedical Engineering Career Symposium*, University of Washington, Seattle, Washington.
18. Swanson, S.C., Derrick, T.R. and Hamill, J. (November, 1995). Comparison of impact and midsole stiffness in hiking boots. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.
19. Hamill, J. and Derrick, T.R. (October, 1995). Impact shock attenuation during conditions of altered stride frequency in running. *Biomedical Engineering Society Annual Meeting*, Boston, Massachusetts.
20. Mahar, A.T., Hamill, J. and Derrick, T.R. (November, 1994). Kinematic analysis of shock attenuation during running. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.
21. Elliott, E.H., Hamill, J. and Derrick, T.R. (November, 1994). The influence of multiple lifts on load kinematics in males and females. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.
22. Li, L., Derrick, T.R., and Kroll W. (November, 1994). Neuromuscular adaptation to fatigue in knee muscles during isometric contractions. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.
23. Derrick, T.R., Hamill, J. and Foti, T. (November, 1993). Spectral analysis of EMG while running in orthotics with a hard and soft midsole. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.

24. Elliott, E.H., Hamill, J. and Derrick, T.R. (November, 1993). Reliability of the Liftstation measurement system. *New England College of Sports Medicine Annual Meeting*, Fitchburg, Massachusetts.
25. Derrick, T., Caster, B., Bates, B.T., Robertson, R., and McCaw, S. (February, 1990). The effectiveness of models for predicting impact forces. *Northwest College of Sports Medicine Annual Meeting*, Portland, Oregon.
26. Sveistrup, H., Davis, H., Derrick, T., James, R. and Bates, B.T. (October, 1989). Effects of repeated trials in vertical ground reaction force measurements and lower limb IEMG profiles of a drop landing. *Canadian Association of Sport Sciences*, Montreal, Quebec.

Technical Reports

1. Derrick, T.R. and Meardon, S.A. (2006). Rearfoot motion in walking shoes. Consumer Reports Magazine. Yonkers, NY.
2. Derrick, T.R. and Edwards, W.B. (2005). Impact testing of 29 running shoes for Runners World Magazine. Exeter Research, Inc., Exeter, NH.
3. Derrick, T.R. (2005). Impact testing of basketball goalpost and backboard padding. American Athletics, Inc., Jefferson, Iowa.
4. Derrick, T.R. (2005). Force, deflection and rebound testing of gymnastics springboards. American Athletics, Inc., Jefferson, Iowa.
5. Derrick, T.R. and Edwards, W.B. (2005). Impact testing of 34 running shoes and 8 trail running shoes for Runners World Magazine. Exeter Research, Inc., Exeter, NH.
6. Derrick, T.R. and Sealine, B. (2005). Rearfoot and forefoot impact testing of 40 pairs of Army Boots. Footwear Performance Laboratory, US Army Soldier Systems Center, Natick, MA.
7. Derrick, T.R. (2005). Maximum force, deflection and bounce height on prototype vault tables: Preliminary FIG testing. American Athletics, Inc., Jefferson, Iowa.
8. Derrick, T.R. (2005). Impacts and energy return of the heel and forefoot of 14 running shoes. Wilson Sporting Goods.
9. Derrick, T.R. (2005). Impact testing of 4 running shoes with and without top layer midsoles. Keith Williams.
10. Derrick, T.R. (2005). Maximum force, deflection and bounce height on prototype gymnastics landing mats: Preliminary FIG testing. American Athletics, Inc., Jefferson, Iowa.
11. Derrick, T.R. (2004). Maximum force, deflection and bounce height on prototype vault tables: Preliminary FIG testing. American Athletics, Inc., Jefferson, Iowa.
12. Derrick, T.R. (2004). Reaction forces on 5 different rims during a basketball dunk. American Athletics, Inc., Jefferson, Iowa.
13. Derrick, T.R. (2003). The effects of mat thickness, mat density and subject mass on mechanical, functional and perceptual energy return and impacts. Hadar Manufacturing, Inc., Humboldt, Iowa.

14. Derrick, T.R. (2003). Horizontal and vertical rim forces during a basketball dunk. American Athletics, Inc., Jefferson, Iowa.
15. Derrick, T.R. (2003). Wheelchair impacts with varied suspension and frame materials. Frog Legs Inc., Vinton, Iowa.
16. Derrick, T.R. and Thomas, J.M. (2002). Walking and running impact testing of 7 energy-absorbing insoles. Remington Products, Wadsworth, Ohio.
17. Derrick, T.R. and Budihardjo, I. (2002). The effects of temperature and impact energy on various snowboard shoe-cushioning devices. Skydex, Englewood, Colorado.
18. Derrick, T.R. and McLean, S.P. (2000). Drop height thresholds using the head injury criteria and the peak g criteria for various gymnastics mats. Hadar Manufacturing, Inc., Humboldt, Iowa.
19. Derrick, T.R. and McLean, S.P. (2000). Perception of impact severity in gymnastics mats. Hadar Manufacturing, Inc., Humboldt, Iowa.
20. Derrick, T.R. and Gregg, M.T. (1998). Wheelchair vibration and mobility. Frog Legs Inc., Vinton, Iowa.
21. Derrick, T.R. and McLean, S.P. (1998). Impact characteristics of selected gymnastics mats. Hadar Manufacturing, Inc., Humboldt, Iowa.
22. Derrick, T.R. (1996). Fila in-line skate project. Fila USA, Newburyport, Massachusetts.
23. Caldwell, G.E., Frederick, E.C., Derrick, T.R. and Aron, C. (1996). Glide turns in in-line skating. Rollerblade Inc.
24. Derrick, T.R. (1996). Rearfoot control, cushioning and forefoot stiffness of selected men's and women's walking shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
25. Derrick, T.R. (1996). Impact analysis of five men's running shoe inserts and three kid's shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
26. Derrick, T.R. (1996). Cushioning, forefoot flexibility and torsional stiffness of five men's running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
27. Derrick, T.R. (1996). Impact, flexibility, kinetics, accelerometry and rearfoot analysis of five men's running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
28. Derrick, T.R. (1995). Impact, stiffness, and rear foot analysis of five women's and six men's running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
29. Derrick, T.R. (1994). Impact, stiffness, rear foot and kinetic analysis of five high end running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
30. Derrick, T.R. (1994). Impact, stiffness, rear foot and kinetic analysis of eight midline running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.

31. Derrick, T.R. (1994). Impact, stiffness, rear foot and kinetic analysis of seven low end running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
32. Derrick, T.R. (1994). Impact and stiffness in fitness, volleyball and running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
33. Derrick, T.R. (1994). Impact, stiffness, rear foot and kinetic analysis of eleven running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
34. Derrick, T.R. (1994). Impact and stiffness in walking shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
35. Derrick, T.R. (1993). Impact and stiffness in fitness, volleyball and running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
36. Derrick, T.R. (1993). Mediolateral control in three different running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.
37. Derrick, T.R. (1993). Mediolateral control in four different running shoes. New Balance Athletic Shoe Inc., Lawrence, Massachusetts.

GRANTS AND CONTRACTS

Year

Submitted	National Institutes of Health RO1. Foot Placement Optimization For Sit-to-stand In Older Adults With Osteoarthritis. Jason C. Gillette, Timothy R. Derrick and Philip M. Dixon. Amount: $630,759.00.
2007	Reference LLC. Assessing physical attributes of gamers for use in variable attribute video games. Timothy R. Derrick and Brent Edwards. Amount: $7,772.00.
2006-2007	KLM Orthotics. Effects of orthotic intervention on foot motion and bone strain during simulated cadaver walking. Timothy R. Derrick, Stacey Meardon and Erin Ward. Amount $23,724.00.
2003-2007	National Institutes of Health RO1. Evaluation of occupational carrying tasks for farm youth. Charles V. Schwab, Steven A. Freeman, Timothy R. Derrick and Jason C. Gillette. Amount: $766,500.00 over three years. Priority score 177.
2006	Sport Biomechanics, Inc. Shoe testing for Runners World Magazine. Timothy R. Derrick and William Brent Edwards. Amount: $6550.00.
2006	Consumer Union. Rearfoot motion in walking shoes. Timothy R. Derrick and Stacey Meardon. Amount $5000.00.
2005-2006	Iowa Foot Clinic. Musculoskeletal Modeling of the Foot. Timothy R. Derrick and Jason Gillette. $13,451.00
2004	American Athletics, Inc. Reaction forces on 5 different rims during a basketball dunk. Timothy R. Derrick. Amount: $2290.00.
2003	Midwest Region Medical Rehabilitation Research Network. A data logger for collecting impacts during daily living and exercise. Timothy R. Derrick. Amount: $2000.00.

Year

2003 Frog Legs, Inc. Wheelchair impacts with varied suspension and frame materials. Timothy R. Derrick. Amount: $4,160.00.

2002 Hadar Manufacturing. Determining the effects of mat thickness, mat density and subject mass on mechanical, functional and perceptual energy return and impacts. Timothy R. Derrick. Amount: $13,098.00.

2000 Iowa State University Special Research Initiation Grant. Postoperative Physical Therapy in the Management of Cranial Cruciate Disease in the Dog. Scott McLean, Tim Derrick, Greg Marsolais. Amount: $10,680.00.

2000 Iowa State University. Kinematic Comparison of Ground Based and Aquatic Open Kinetic Chain Rehabilitation in the Canine following Cranial Cruciate Ligament Stabilization. Amount: $1000.00.

2000 Iowa State University Honors Program. Subtalar/Knee Synchrony and Impacts During Running on Various Lengths of Grass. Timothy R. Derrick and Stacy Darnold. Amount: $500.00.

1999 Peak Performance Technologies, Inc. Timothy R. Derrick, Scott P. McLean and Stjepan Raiko. A dynamic pattern recognition algorithm to automatically organize 3-D path data. Amount: $23,000.00.

1999 College of Education, Iowa State University. Exercise and Sports Science in Europe: A Proposal to Participate in an International Study Site Visit. ~$3,000.00.

1999 Hadar Manufacturing. Testing of Various Mat Configurations for Impact Energy Absorption and Stability. Timothy R. Derrick and Scott McLean. Amount: $6,719.00. Extended on 2/21/2000 for an additional $4630.00 to $11,349.00.

1998 National Institute of Arthritis and Musculoskeletal and Skin Diseases. Coordination Between Joints as an Injury Mechanism. Nickolas Stergiou and Timothy R. Derrick. Amount: $283,366.00 over three years. Not funded.

1998 Frog Legs. Vibration, Obstacle Clearance and Mobility of the Frog Legs Wheelchair Suspension Casters. Timothy R. Derrick. Amount: $8,665.00.

1998 College of Education, Iowa State University. Kinematic Adaptations to Changes in Ground Hardness While Running. Timothy R. Derrick. Summer Salary Support. Amount: $6,053.00

1998 Hadar Manufacturing. Establishment of Maximal Impact Energy on Various Gymnastic Mats. Timothy R. Derrick and Scott McLean. Amount: $3,180.00.

1997 College of Education Small Grant Competition, Iowa State University. For purchase of equipment for research related to injuries to volleyball players practicing on a portable court surface. Scott McLean and Timothy R. Derrick. Amount: $5,378.00. Matching funds provided by the Department of Biomedical Engineering. Amount: $4,800.00. Total Amount: $10,178.00.

1996 College of Education, Iowa State University. Designation as a Research Signature Area: The Exercise Biodynamics Research Group. Doug King, Timothy R. Derrick, Warren Franke, Scott McLean, Lynn Panton and Rick Sharp. Amount: $45,000.00.

Year

1996 Wellco Industries. Biomechanical analysis of military boots. Joseph Hamill and Timothy R. Derrick. Subcontract. Contract #DAAK60-95-R-8010, U.S. Army, Natick, MA. Amount: $51,436.00.

1996 Fila U.S.A. In-Line Skate Kinematics and Friction Testing. Timothy R. Derrick. Amount: $3800.00.

1996 Rollerblade Inc. In-Line Skating: Turning Pilot Project. Graham Caldwell, Ned Fredrick, Timothy R. Derrick and Cathleen Aron. Amount: $5,000.00.

1996 New Balance Athletic Shoe Inc. Biomechanical testing of athletic shoes. Timothy R. Derrick. Amount: $8,475.51.

1995 New Balance Athletic Shoe Inc. Biomechanical testing of athletic shoes. Timothy R. Derrick. Amount: $14,525.00.

1994 New Balance Athletic Shoe Inc. Biomechanical testing of athletic shoes. Timothy R. Derrick. Amount: $24,940.24

1993 New Balance Athletic Shoe Inc. Biomechanical testing of athletic shoes. Timothy R. Derrick. Amount: $9,200.00.

1992 Cycling Research Association. Cardiorespiratory and kinetic analysis of trunk and seat-tube angle variation during steady-state cycling. Daniel P. Heil, Timothy R. Derrick and Sandy Whittlesey. Amount: $2,200.00.

PROFESSIONAL SERVICE

Reviewer

Research Quarterly
Journal of Applied Physiology
Journal of Applied Biomechanics
Medicine and Science in Sports and Exercise
Pediatric Exercise Science
Medicine Science Nutrition and Health

Miscellaneous Service

1. Co-organizer for Symposium. Ground/foot impacts: measurement, attenuation and consequences. *American College of Sports Medicine*, St. Louis, Missouri. T.R. Derrick and J.A. Mercer, (May, 2002).
2. Information Technology Committee member for the VIth International Olympic Committee World Congress on Sport Sciences, , (2000-2001).
3. Faculty advisor for the Iowa State University chapter of the Biomedical Engineering Society (1998-2001).
4. Session evaluator for the Alliance for Health, Physical Education, Recreation and Dance Conference (1997).

5. Scientific committee member for the XIth Symposium of the International Society of Biomechanics in Sports (1993).

HONORS AND AWARDS

2003 University Honors Program Mentoring/Advising Award ($500)

2001 Exceptional Support Recognition, Student Scholars and Leaders Recognition Ceremony, Iowa State University (2 students)

2001 Outstanding Early Teaching Commendation, College of Education, Iowa State University

2000 Outstanding Early Research Commendation, College of Education, Iowa State University

2000 Exceptional Support Recognition, Student Scholars and Leaders Recognition Ceremony, Iowa State University (2 students)

1993 Student Investigator Award, New England Chapter, American College of Sports Medicine