

JASON C. GILLETTE, PhD
Department of Kinesiology
Iowa State University

WORK ADDRESS

Department of Kinesiology
Iowa State University
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EDUCATION

Postdoctoral

University of Kentucky
Center for Biomedical Engineering
Concentration: Biomechanics
Secondary Areas: Postural control, ergonomics, multibody
dynamics, and rehabilitation engineering
Advisor: James J. Abbas, PhD

Doctor of Philosophy

Iowa State University
Co-major: Biomedical Engineering
Co-major: Engineering Mechanics
Graduation date: August 1999
Dissertation: "A three-dimensional, dynamic model of the
human body for lifting motions"
Co-advisor: Timothy R. Derrick, PhD
Co-advisor: Alison B. Flatau, PhD

Master of Engineering

Iowa State University
Major: Engineering Mechanics
Minor: Business Administrative Sciences
Graduation date: May 1993
Creative Component: "Proposed investigation of Doppler
ultrasound methods for diagnosis of heart valve disease"
Advisor: Jeffrey C. Huston, PhD

Bachelor of Science

Iowa State University
Major: Engineering Science
Graduation date: December 1991
Senior project: "Biomechanical investigation of manually
thrown switch stands"
Advisor: Jeffrey C. Huston, PhD

EMPLOYMENT

2008 - present	Associate Professor, Biomechanics and Motor Control, Department of Kinesiology, Iowa State University
2002 - 2008	Assistant Professor, Biomechanics and Motor Control, Department of Kinesiology, Iowa State University
1999 - 2002	Postdoctoral Scholar, Neural Control Laboratory, Center for Biomedical Engineering, University of Kentucky
1996 - 1999	Teaching Assistant, Engineering Dynamics, Department of Aerospace Engineering & Engineering Mechanics, Iowa State University
1998	Tutor, Student Services, Engineering dynamics/classical physics/general physics, Iowa State University
1992-1995	Research Assistant, NSF Synthesis Coalition, Department of Aerospace Engineering & Engineering Mechanics, Iowa State University
1994	Graduate Student Consultant, Adaptive Equipment Department, Woodward State Hospital and School, Iowa State University
1990-1992	Undergraduate Research Assistant, NIH FICSIT Multi-center Trials, Biomedical Engineering Program, Iowa State University

TEACHING

2003-present	Biomechanics, Department of Kinesiology, KIN 355, Application of mechanical principles to exercise, sport, and other aspects of human performance. (11 semesters)
2003-present	Motor Control and Learning Across the Lifespan, Department of Kinesiology, KIN 372, Introduction to neuromotor control, behavioral motor control, and motor learning. (11 semesters)
2004-present	Musculoskeletal Modeling, Department of Kinesiology, KIN 517, Integration of kinematics, anthropometrics, and muscle mechanics into simulations of human movement. (3 semesters)
2007-present	Special Topics: Injury Biomechanics, Department of Kinesiology, KIN 590, Tissue mechanics, injury mechanisms, lower extremity injuries, upper extremity injuries, and head/neck/trunk injuries. (1 semester)
2002-present	Independent Study, Department of Kinesiology, KIN 490, Osteoarthritis, ACL injuries, and ilio-tibial band syndrome. (14 semesters)
2006-present	Graduate Independent Study, Department of Kinesiology, KIN 590, Biomechanics, motor control, musculoskeletal modeling. (3 semesters)
2003-present	Research, Department of Kinesiology, KIN 699, M.S. thesis and PhD dissertation mentoring. (16 semesters)
2003-2008	Special Problems, Honors Program, HON 290, Osteoarthritis, iliotibial-band syndrome, and electrical stimulation. (6 semesters)
1996-1999	Engineering Dynamics, Dept. of Aerospace Engineering & Engineering Mechanics, EM 345, Particle and rigid body kinematics, Newton's laws of motion, work-energy, impulse-momentum, vibrations. (7 semesters)

FUNDING

2007-2009 Entrepreneurial Initiatives	Smiley-Oyen AL (PI), Derrick TR, Gillette JC, Ekkekakis P & Franke WD. "Clinical Gait Assessment Program." Iowa State University, \$45,000.
2003-2007 Co-Principal Investigator	Schwab CV (PI), Freeman SA, Derrick TR & Gillette JC. "Evaluation of occupational carrying tasks for farm youth." National Institute of Occupational Safety and Health, National Institutes of Health, \$766,500.
2007 CHS Seed Grant	Gillette JC (PI), Derrick TR, Dixon PM & Stevermer CA. "Foot placement optimization for older adults with knee osteoarthritis during sit-to-stand at different seat heights." Iowa State University, \$3,985.
2005-2006 University Research Grant	Gillette JC (PI). "Optimization of sit-to-stand movements for elderly individuals and individuals with total knee replacements." Iowa State University, \$16,000.
2004-2006 Small Business Innovative Research	Gillette JC (PI). "Biomechanical analysis for customized electrical stimulation for SCI rehabilitation." Subcontract, customKYnetics, Inc., \$8,307. Hartman EC (PI). "Customized electrical stimulation for SCI rehabilitation." National Center for Medical Rehabilitation Research, National Institutes of Health, \$600,000.
2005-2006 Co-Principal Investigator	Derrick TR (PI) & Gillette JC. "Musculoskeletal modeling of the foot." Central Iowa Foot Clinic, \$13,451.
2003 Special Research Initiation Grant	Gillette JC (PI). "Optimization of functional neuromuscular stimulation patterns to improve sitting-to-standing movements for individuals with spinal cord injuries." Iowa State University, \$15,984.
2002-2003 Small Business Innovative Research	Gillette JC (PI). "Biomechanical analysis of stimulation for improved trunk stability." Subcontract, customKYnetics, Inc., \$8,910. Hartman EC (PI). "Electrical stimulation for trunk stabilization in SCI." National Center for Medical Rehabilitation Research, National Institutes of Health, \$100,000
2000-2002 Postdoctoral Scholar	Abbas JJ (PI), McCrory JL, McDowell S, Triolo RJ & Kirsch RF. "Preparatory adjustments for improved standing with FNS." National Center for Medical Rehabilitation Research, National Institutes of Health, \$588,488.
2001-2002 Postdoctoral Scholar	Park A (PI), Knapp CF, Edwards RG & Shapiro R. "Assessment of ergonomic risk factors associated with the use of micro-instrumented surgical devices and procedures." Stryker Endoscopy, \$600,000.
1996-1999 Postdoctoral Scholar	Abbas JJ (PI) & McDowell S. "Feedforward control of standing by functional neuromuscular stimulation." Subcontract, Case Western Reserve University, \$140,636. Triolo RJ (PI), Kirsch RF, Davis JA & Delp S. "Standing by functional neuromuscular stimulation." Neural Prosthesis Program, National Institutes of Health, \$1,090,009.

PUBLICATIONS

- Edwards WB, Taylor D, Rudolphi TJ, Gillette JC & Derrick TR. (2009). "The influence of stride length and running mileage on a probabilistic model for stress fracture." In press for *Medicine & Science in Sports & Exercise*.
- Gillette JC, Stevermer CA, Meardon SA, Derrick TR & Schwab CV. (2009). "Upper extremity and lower back torques during carrying tasks in farm children." *Journal of Applied Biomechanics*, 25: 149-155.
- Gillette JC, Stevermer CA, Miller RH, Meardon SA & Schwab CV. (2009). "The effects of age and type of carrying task on lower extremity kinematics." Accepted with revisions for *Ergonomics*.
- Miller RH, Gillette JC, Derrick TR & Caldwell GE. (2009). "Muscle forces during running predicted by gradient-based and random search static optimisation algorithms." *Computer Methods in Biomechanics and Biomedical Engineering*, 12(2): 217-225.
- Edwards WB, Gillette JC, Thomas JM & Derrick TR. (2008). "Internal femoral forces and moments during running." *Clinical Biomechanics*, 23:1269-1278.
- Gillette JC, Stevermer CA, Quick NE & Abbas JJ. (2008). "Alternative foot placements for individuals with spinal cord injuries standing with the assistance of functional neuromuscular stimulation." *Gait & Posture*, 27: 280-285.
- Miller RH, Meardon SA, Derrick TR & Gillette JC. (2008). "Continuous relative phase variability during an exhaustive run in runners with a history of iliotibial band syndrome." *Journal of Applied Biomechanics*, 24: 262-270.
- Miller RH, Lowry JL, Meardon SA & Gillette JC. (2007). "Lower extremity mechanics of iliotibial band syndrome during an exhaustive run." *Gait & Posture*, 26: 407-413.
- Gillette JC & Stevermer CA. (2006). "Optimization of foot placement for individuals with total knee replacements during sit-to-stand transfers." *Biomedical Sciences Instrumentation*, 42: 524-529.
- Gillette JC, Stevermer CA, Raina S & Derrick TR. (2005). "Support torques during simulated sit-to-stand movements." *Biomedical Sciences Instrumentation*, 41: 7-12.
- Gillette JC, Stevermer CA, Raina S & Derrick TR. (2004). "NMES-assisted standing model from varied seated postures." *Biomedical Sciences Instrumentation*, 40: 30-35.
- Gillette JC & Abbas JJ. (2003). "Foot placement alters the mechanisms of postural control while standing and reaching." *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 11: 377-385.
- Gillette JC & Hartman EC. (2003). "Simulation of functional neuromuscular stimulation assisted sit-to-stand movements." *Biomedical Sciences Instrumentation*, 39: 300-305.
- Gillette JC, Quick NE, Adrales GL, Shapiro R & Park AE. (2003). "Changes in postural mechanics associated with different types of minimally invasive surgical training exercises." *Surgical Endoscopy*, 17: 259-263.
- Quick NE, Gillette JC, Shapiro R, Adrales GL, Gerlach D & Park AE. (2003). "The effect of using laparoscopic instruments on muscle activation patterns during minimally invasive surgical training procedures." *Surgical Endoscopy*, 17: 462-465.
- Gillette JC, Quick NE & Abbas JJ. (2002). "Center of pressure measures to assess standing performance." *Biomedical Sciences Instrumentation*, 38: 239-244.
- Samsundar J & Gillette JC. (2002). "Trajectory generation using genetic and sequential quadratic programming methods." *SAE Transactions – Journal of Aerospace*, 110: 619-625.

Abbas JJ & Gillette JC. (2001). "Using electrical stimulation to control standing posture." *IEEE Control Systems*, 21: 80-90.

CONFERENCE PRESENTATIONS

- Dai B, Sorensen CJ & Gillette JC. (2009). "The effects of detraining on stabilometric performance in volleyball players." American Society of Biomechanics, State College, PA.
- Edwards WB, Rudolphi TH, Gillette JC & Derrick TR. (2009). "Effects of reducing stride length and shoe stiffness on the probability of tibial stress fracture." American College of Sports Medicine, Seattle, WA.
- Edwards WB, Taylor D, Gillette JC & Derrick TR. (2009). "The probability for tibial stress fracture increases with running speed." American Society of Biomechanics, State College, PA.
- Gillette JC, Stevermer CA, Miller RH, Edwards WB & Schwab CV. (2009). "Lower extremity joint moments during carrying tasks in children." American Society of Biomechanics, State College, PA.
- Sorensen CJ, Dai B, McIntyre P & Gillette JC. (2009). "The effects of strength testing on knee biomechanics during a drop jump in males." American Society of Biomechanics, State College, PA.
- Stevermer CA, Nelsen NL & Gillette JC. (2009). "Varus knee torques in high-heeled stair descent." American Society of Biomechanics, State College, PA.
- Edwards WB, Sealine BJ, Miller RH, Gillette JC & Derrick TR. (2008). "Static optimization of muscle forces during drop landings: A comparison of cost functions." North American Congress of Biomechanics, Ann Arbor, MI.
- Gillette JC, Stevermer CA, Miller RH & Schwab CA. (2008). "Effects of asymmetric carrying tasks on lower extremity kinematics in farm children." National Institute for Farm Safety, Lancaster, PA.
- Sorensen CJ, Edwards WB, Sealine BJ, Gillette JC & Derrick TR. (2008). "Lower-back compressive forces during drop landings." North American Congress of Biomechanics, Ann Arbor, MI.
- Derrick TR, Thomas JM & Gillette JC. (2007). "Internal knee forces during running off a platform." American College of Sports Medicine, New Orleans, LA.
- Gillette JC, Derrick TR, Schwab CV, Freeman SA, Stevermer CA & Meardon SA. (2007). "Evaluation of occupational carrying tasks in farm youth." National Institute for Farm Safety, Penticon, British Columbia.
- Gillette JC & Stevermer CA. (2007). "The effects of foot placement on able-bodied and FES-assisted quiet standing." International Society for Posture & Gait Research, Burlington, VT.
- Miller RH, Gillette JC & Derrick TR. (2007). "Sensitivity of muscle force predictions during overground running to the choice of optimization algorithm." American College of Sports Medicine, New Orleans, LA.
- Stevermer CA & Gillette JC. (2007). "Comparison of sit-to-stand movement indicators for healthy young and older adults." International Society for Posture & Gait Research, Burlington, VT.
- Gillette JC & Stevermer CA. (2006). "Modeling the effects of foot placement during sit-to-stand using a stabilization strategy." American Society of Biomechanics, Blacksburg, VA.

- Gillette JC & Stevermer CA. (2006). "Optimization of foot placement for individuals with total knee replacements during sit-to-stand transfers." Rocky Mountain Bioengineering Symposium, Terre Haute, IN.
- Gillette JC, Stevermer CA, Meardon SA, Derrick TR & Schwab CV. (2006). "Upper extremity torques during carrying tasks in farm children." American College of Sports Medicine, Denver, CO.
- Meardon SA, Gillette JC, Stevermer CA, Miller RH, Derrick TR & Schwab, CV. (2006). "Age and condition related differences during carrying tasks in farm youth." American College of Sports Medicine, Denver, CO.
- Meardon SA, Miller RH, Derrick TR & Gillette JC. (2006). "Examination of lower extremity variability during normal and fatigued running in individuals with and without iliotibial band syndrome." Midwest Graduate Student Biomechanics Symposium, Milwaukee, WI.
- Meardon SA, Miller RH, Derrick TR & Gillette JC. (2006). "Lower extremity coupling variability during an exhaustive run in individuals with iliotibial band syndrome." American Society of Biomechanics, Blacksburg, VA.
- Miller RH, Lowry JL & Gillette JC. (2006). "Prediction of iliotibial band strain during running." American College of Sports Medicine, Denver, CO.
- Miller RH, Lowry JL, Meardon SA & Gillette JC. (2006). "Iliotibial band impingement at heel-strike during distance running." Midwest Graduate Student Biomechanics Symposium, Milwaukee, WI.
- Stevermer CA & Gillette JC. (2006). "Kinematic and kinetic movement indicators during sit-to-stand in young and older adults." Midwest Graduate Student Biomechanics Symposium, Milwaukee, WI.
- Stevermer CA, Raina S & Gillette JC. (2006). "Mediolateral stability during sit-to-stand in individuals after total knee arthroplasty." American College of Sports Medicine, Denver, CO.
- Derrick TR, Gillette JC & Thomas JM. (2005). "Extraction of the impact from vertical ground reaction forces." International Society of Biomechanics, Cleveland, OH.
- Gillette JC, Resig J, Alton J & Hartman EC. (2005). "Lower back FNS for stabilization during one- and two-handed reaching tasks." International Society of Biomechanics, Cleveland, OH.
- Gillette JC, Stevermer CA, Raina S & Derrick TR. (2005). "Support torques during simulated sit-to-stand movements." Rocky Mountain Bioengineering Symposium, Copper Mountain, CO.
- Raina S, Stevermer CA & Gillette JC. (2005). "The effect of foot placement on sit-to-stand with and without walker assistance." International Society of Biomechanics, Cleveland, OH.
- Stevermer CA, Raina S & Gillette JC. (2005) "Investigation of sit-to-stand performance for individuals after total knee arthroplasty." International Society of Biomechanics, Cleveland, OH.
- Gillette JC, Stevermer CA, Raina S & Derrick TR. (2004). "NMES-assisted standing model from varied seated postures." Rocky Mountain Bioengineering Symposium, Ft. Collins, CO.
- Thomas JM, Derrick TR & Gillette JC. (2004). "The effect of knee angle at contact on impacts while running off a raised platform." American College of Sports Medicine, Indianapolis, IN.
- Abbas JJ, Finley JL, Gillette JC, Triolo RJ & Resig JA. (2003). "Standing with functional neuromuscular stimulation: effect of foot placement and feedback variables." Engineering in Medicine and Biology Society, Cancun, Mexico.
- Gillette JC & Hartman EC. (2003). "Simulation of functional neuromuscular stimulation assisted sit-to-stand movements." Rocky Mountain Bioengineering Symposium, Biloxi, MS.

- Gillette JC, Quick NE & Abbas JJ. (2003). "Hand support forces when using functional neuromuscular stimulation to assist in standing." American College of Sports Medicine, San Francisco, CA.
- Finley JL, Gillette JC, Riess JA, Triolo RJ & Abbas JJ. (2002). "Feedback signals to adjust and control standing posture." IEEE Engineering in Medicine and Biology Society, Houston, TX.
- Gillette JC, Derrick TR, Quick NE & Shapiro R. (2002). "Lower back moment and postural parameter relationships during asymmetric lifting." World Congress of Biomechanics, Calgary, Canada.
- Gillette JC, Quick NE & Abbas JJ. (2002). "Center of pressure measures to assess standing performance." Rocky Mountain Bioengineering Symposium, Copper Mountain, CO.
- Gillette JC, Quick NE, Adrales GL, Shapiro R & Park AE. (2002). "Changes in postural mechanics associated with different types of minimally invasive surgical training exercises." Society of American Gastrointestinal Endoscopic Surgeons, New York City, NY.
- Gillette JC, Quick NE, Adrales GL, Shapiro R & Park AE. (2002). "Postural comparison of minimally invasive and open surgery on a cadaveric porcine model." Digestive Disease Week, San Francisco, CA.
- Gillette JC, Quick NE, Finley JL & Abbas JJ. (2002). "Postural effects of foot placement during FNS-assisted standing." International Functional Electrical Stimulation Society, Ljubljana, Slovenia.
- Quick NE, Gillette JC, Shapiro R, Adrales GL, Gerlach D & Park AE. (2002). "The effect of using laparoscopic instruments on muscle activation patterns during minimally invasive surgical training procedures." Society of American Gastrointestinal Endoscopic Surgeons, New York City, NY.
- Quick NE, Gillette JC, Shapiro R, Adrales GL & Park AE. (2002). "Muscle activation patterns during open and laparoscopic surgical procedures using a porcine model: a preliminary study." Digestive Disease Week, San Francisco, CA.
- Gillette JC, Riess J & Abbas JJ. (2001). "Comparison of FNS-assisted and able-bodied quiet stance." International Functional Electrical Stimulation Society, Cleveland, OH.
- Gillette JC & Derrick TR. (2000). "Analyzing three-dimensional lifting motions using upper and lower body formulations." American College of Sports Medicine, Indianapolis, IN.
- Gillette JC, Riess J, McCrory JL, Schwarting A & Abbas JJ. (2000). "Standing posture during functional tasks: effect of foot placement and implications for FNS standing." International Functional Electrical Stimulation Society, Aalborg, Denmark.
- Gillette, JC & Huston JC. (1995). "Considerations for improving ultrasound analysis in diagnosing heart valve disease." ASME Bioengineering, Beaver Creek, CO.
- Gillette JC, Huston JC, Johnson RM & Hiemcke C. (1995). "Developing accessible engineering courseware." IEEE Frontiers in Education, Atlanta, GA.
- Gillette JC, Huston JC, Johnson RM & Hiemcke C. (1995). "Exposing freshman engineering students to a courseware authoring environment." American Society for Engineering Education, St. Cloud, MN.
- Gillette JC, Johnson RM, Huston JC & Hiemcke C. (1995). "Creating a multimedia authoring environment for engineering courseware development." World Conference on Engineering Education, St. Paul, MN.
- Huston JC, Gillette JC, Hiemcke C, Johnson RM, Eversden MR & Pletka RJ. (1994). "Prototype educational software for integrating the engineering curriculum." IEEE Frontiers in Education, San Jose, CA.

- Huston JC, Hiemcke C, Gillette JC & Johnson RM. (1994). "Evaluating the quality of engineering courseware." Technology-Based Engineering Education Consortium, Gatlinburg, TN.
- Hiemcke C, Gillette JC, Eversden MR, Barrance PJ & Huston JC. (1993). "Performance of multimedia courseware for engineering dynamics: student and faculty opinions." American Society for Engineering Education, Mankato, MN.
- Hiemcke C, Eversden MR, Gillette JC & Huston JC. (1993). "Investigation of authoring software for the creation of engineering courseware." Technology-Based Engineering Education Consortium, Santa Fe, NM.

RESEARCH PRESENTATIONS

- Gillette JC, Stevermer CA, Raina S & Derrick TR. (2004) "Simulation of functional neuromuscular stimulation-assisted sit-to-stand from varied seated postures." Centers for Research on Neurorehabilitation, Rehabilitation Institute of Chicago.
- Gillette JC, Quick NE & Abbas JJ. (2003). "Hand support forces when using functional neuromuscular stimulation to assist in standing." Centers for Research on Neurorehabilitation, Rehabilitation Institute of Chicago.
- Gillette JC, Smiley-Oyen AL & Derrick TR. (2003). "Motor control and biomechanics research at Iowa State University." Rehabilitation Institute of Chicago, Northwestern University.
- Gillette JC, Quick NE, Finley JL & Abbas JJ. (2002). "Quantitative assessment of FNS-assisted standing with alternative foot placements." Physical Medicine and Rehabilitation Research Day, University of Kentucky.
- Gillette JC, Riess J & Abbas JJ. (2001). "Standing with functional neuromuscular stimulation as compared to able-bodied quiet standing." Physical Medicine and Rehabilitation Research Day, University of Kentucky.
- Gillette JC. (2001). "Quiet standing and reaching in able-bodied individuals: implications for FNS standing systems." Rehabilitation Engineering Center, Case Western Reserve University.
- Gillette JC, Huston JC & Derrick TR. (1997). "The biodynamics of the lumbar spine during lifting." National Biomedical Engineering Career Symposium, University of Washington.

DISCUSSION PANELS

- "Altruistic Careers and Engineers Making a Difference," Engineering Leadership Program, College of Engineering (2009)
- "Getting Through Your First Year as Faculty at ISU," New Faculty Orientation, Office of the Provost (2003)

MAJOR PROFESSOR FOR GRADUATE STUDENTS – CURRENT

Elizabeth D. Stafford, PhD
Catherine A. Stevermer, PhD
Michelle Hall, MS
Joshua Miley, MS
Chris J. Sorensen, MS

MAJOR PROFESSOR FOR GRADUATE STUDENTS – GRADUATED, EMPLOYMENT AFTER DEGREE

- Boyi Dai, MS. (2009). “The effects of detraining on knee biomechanics in a stop-jump task: Implications for ACL injury.” PhD student at University of North Carolina, Chapel Hill
- Ross H. Miller, MS. (2006). “Lower extremity mechanics of iliotibial band syndrome during an exhaustive run.” PhD student at University of Massachusetts.
- Shashank Raina, MS. (2005). “The effect of foot placement and walker assistance on sit-to-stand transfers.” PhD student at University of Southern California.

POS COMMITTEE FOR GRADUATE STUDENTS – CURRENT

- Danielle Barkema, MS
Samuel Campbell, MS
Sudeshna Chatterjee, MS

POS COMMITTEE FOR GRADUATE STUDENTS - GRADUATED

- William R. Brown, MS
William Brent Edwards, PhD
Allison M. Johnston, MS
Stacey A. Meardon, PhD
Brett J. Sealine, MS
Guan-Qiang Tan, MS
Joshua M. Thomas, PhD
Karthik Venkataraman, ME

STUDENT FUNDING AWARDS

- Stafford ED. (2008). PhD Student, Barbara E. Forker Scholarship, Department of Kinesiology, Iowa State University, \$1,500.
- Stevermer CA. (2007-2008). PhD Student, Gerontology Assistantship, Iowa State University, \$10,035.
- Stevermer CA. (2007-2008). PhD Student, Betty B. and James B. Lambert Kappa Alpha Theta Foundation Scholarship, \$8,000.
- Stevermer CA. (2006-2007). PhD Student, Betty B. and James B. Lambert Kappa Alpha Theta Foundation Scholarship, \$7,000.
- Stevermer CA. (2006-2007). PhD Student, Pease Family Doctoral Research Award, Health and Human Performance Department, Iowa State University, \$1,667.
- Stevermer CA. (2003-2004). PhD Student, Future Faculty Fellowship, College of Education, Iowa State University, \$12,000.
- Lowry JL. (2004). Undergraduate Student, Alfred Mueller Honors Research Fund, University Honors Program, Iowa State University, \$1,000.
- O’Rourke DJ. (2004). Undergraduate Student, Freshman Honors Mentor Program Grant, University Honors Program, Iowa State University, \$250.
- Lowry JL. (2003). Undergraduate Student, Freshman Honors Mentor Program Grant, University Honors Program, Iowa State University, \$181.

HONORS AND AWARDS

Outstanding Early Research Commendation, College of Education, Iowa State University (2005)
Engineering Student Council Outstanding Engineering Staff Member, Iowa State Univ. (1999)
Teaching Excellence Award, Iowa State University (1998)
Experienced and Talented Teaching Assistant Honorarium, Iowa State University (1998)
Honeywell Engineering/Business Fellowship, Iowa State University (1990-1993)
REMSA Academic Scholarship, Iowa State University (1989)
3M Academic Scholarship, Iowa State University (1988)
High Scholarship Student – Engineering College, Iowa State University (1987)

PROFESSIONAL MEMBERSHIPS

American Society of Biomechanics (2006-2007, 2009-2010)
American College of Sports Medicine (1999-2000, 2003-2004, 2006-2007)
International Society for Posture and Gait Research (2006-2007)
International Society of Biomechanics (2005-2006)
International Functional Electrical Stimulation Society (1999-2004)
Biomedical Engineering Society (1994-2002)
American Society for Engineering Education (1994-1997)

REVIEWER - SCIENTIFIC JOURNALS

Archives of Physical Medicine and Rehabilitation
Brain Research Bulletin
IEEE Engineering in Medicine and Biology
IEEE Transactions on Biomedical Engineering
Research Quarterly for Exercise and Sport

PROFESSIONAL ACTIVITIES

Gerontology Faculty, Iowa State University (2006-present)
Board of Directors, Rocky Mountain Bioengineering Symposium (2004-2008)
Reviewer, Rocky Mountain Bioengineering Symposium (2004-2008)
Conference Co-Chair, Rocky Mountain Bioengineering Symposium (2004-2005)
Grant Writers' Workshop, Russell SW and Morrison DC (2003)
NIH Regional Seminar, Program Funding and Grants Administration, U. of Maryland (2003)
College Teaching Workshop, Iowa State University (1997, 2002)
Clinical Advances in Neurorehabilitation Science, Cardinal Hill Rehabilitation Hospital (2001)
Kentucky Spinal Cord and Head Injury Research Symposium (2000-2001)
Reviewer, Rehabilitation Engineering Society of North America (2001)
Biomedical Engineering Society, President, Local Chapter, Iowa State University (1996-1999)
Professional Advancement Grants Committee, Graduate Student Senate, ISU (1995)
Qualification as Engineer-in-Training

UNIVERSITY COMMITTEES

Institutional Review Board, Iowa State University (2008-present)

Promotion and Tenure Committee, Department of Kinesiology (2008-present)

Social Committee, Department of Kinesiology (2007-present)

Technology Advisory Committee, College of Human Sciences (2007-present)

Pease Family Scholar Committee, Department of Kinesiology (2005-present)

Appeals Committee, Department of Kinesiology (2003-present)

Graduate Faculty Committee, Department of Kinesiology (2002-present)

Undergraduate Curriculum and Standards Committee, Department of Kinesiology (2008-2009)

Computer Advisory Committee, College of Human Sciences (2004-2007)

Computer Advisory Committee, Department of Kinesiology (2004-2007)