October 2009

Curriculum Vitae
Matthew Kirk Seeley, PhD, ATC

Department of Exercise Sciences, Brigham Young Uniersity
116B RB, Provo, UT 84602
Phone: 801.422.4970 • Fax: 801.422.0555
E-mail: matt_seeley@byu.edu

Education

Doctor of Philosophy in Exercise Science, University of Kentucky, Lexington, KY, USA, 2006
Area of Concentration: Biomechanics
Dissertation Title: A Test of the Functional Asymmetry Hypothesis During Walking
Major Co-Advisors: Robert Shapiro, PhD & Brian R. Umberger, PhD

Master of Science in Exercise Science, Utah State University, Logan, UT, USA, 2002
Area of Concentration: Biomechanics
Thesis Title: Reaction Forces During the Yurchenko Vault and Floor Exercise
Major Advisor: Eadric Bressel, EdD

Bachelor of Science in Physical Education, Utah State University, Logan, UT, USA, 2000

Professional Experience

Brigham Young University, Provo, UT, USA
Assistant Professor, 2006–present

University of Kentucky, Lexington, KY, USA
Research Assistant/Biodynamics Laboratory Manager, 2003–2006
Teaching Assistant, Department of Kinesiology and Health Promotion 2003–2006
Graduate Assistant, Faculty and Staff Wellness Program, 2002–2003

Intermountain Health Care, Logan, UT, USA
Head Athletic Trainer, Utah State University Club and Intramural Sports, 2001–2002

Utah State University, Logan, UT, USA
Graduate Teaching Assistant, Dept of Health, Physical Education, and Recreation, 2001–2002
Graduate Assistant Athletic Trainer, 2000–2001
Undergrad Teaching Assistant, Dept of Health, Physical Education, and Recreation, 1997–2000
Undergraduate Student Athletic Trainer, 1997–2000

Teaching Experience

Brigham Young University

EXSC 362	Kinesiology and Biomechanics	(instructor)
EXSC 365	Scientific Bases of Sport: Kinesiology	(instructor)
EXSC 663	Research Techniques in Biomechanics	(instructor)

University of Kentucky

KHP 515	Anatomical and Mechanical Kinesiology	(co-instructor)
PT 686	Athletic Taping	(co-instructor)
AT 695	Advanced Rehabilitation Concepts	(co-instructor)

Utah State University

PEP 4200	Biomechanics	(lab instructor)
PEP 3100	Athletic Injuries	(lab instructor)

Student Mentoring & Supervision

Committee Chair

Merrill Funk	master's student (Exercise Sciences), Anticipated Graduation—August 2010
Maggie Chan-Roper	master's student (Exercise Sciences), Anticipated Graduation—August 2011

Committee Member

Jeremy Hawkins	doctoral student (Physical Medicine and Rehabilitation), Graduated—April 2009
Romina Villamonte	doctoral student (Physical Medicine and Rehabilitation), Graduated—April 2009
Jihong Park	doctoral student (Physical Medicine and Rehabilitation), Anticipated Graduation—August 2012
Mark Coglianese	doctoral student (Physical Medicine and Rehabilitation), Anticipated Graduation—August 2012
Aared Sampson	master's student (Exercise Sciences), Graduated—August 2009
Ruthann Cunningham	master's student (Exercise Sciences), Graduated—August 2009
Taubi Neves	master's student (Exercise Sciences), Anticipated Graduation—December 2009
Leslie Lovesee	master's student (Exercise Sciences), Anticipated Graduation—April 2010
Sarah Ingebretsen	master's student (Exercise Sciences), Anticipated Graduation—April 2010
Jesse Tukuafu	master's student (Exercise Sciences), Anticipated Graduation—April 2010
Kazuto Sakita	master's student (Exercise Sciences), Anticipated Graduation—
Nathan Rencher	master's student (Exercise Sciences), Anticipated Graduation—
Jill Camarena	master's student (Exercise Sciences), Anticipated Graduation—
Nicole Rasmussen	master's student (Exercise Sciences), Anticipated Graduation—
Kira Pope	master's student (Exercise Sciences), Anticipated Graduation—

Undergraduate Mentees & Related Research Projects

Student(s): Tom Bateman, Adam Roggia, Matthew Francis, Emily Stephens
Project Title: The Transfer of Mechanical Energy During Spring-loaded Crutch Ambulation

Student(s): Ryan Sanderg, Joshua Chacon, Steven Monsen
Project Title: Metabolic Energy Expenditure During Spring-loaded Crutch Ambulation

Student(s): Travis Dunn
Project Title: The Effect of Experimentally-induced Knee Pain on Walking Mechanics

Student(s): Ryan Sanberg, Kyle Adams
Project Title: Reaction Forces During Spring-loaded Crutch Ambulation

Student(s): Cory Belnap, Daniel Blackner
Project Title: The Effect of A Marked Golf Ball on Putting Accuracy

Scientific Publications

Refereed Articles

Seeley, M.K., Sandberg, R.P., Chacon, J.F., Funk, M.D., Nokes, N., & Mack, G.W.. A novel spring-loaded crutch does not reduce metabolic cost during crutch ambulation. *Gait and Posture,* In Review.

Villamonte, R., Vehrs, P.R., Feland, J.B., Johnson, A.W., Seeley, M.K., & Egget, D.. Reliability of sixteen balance tests in individuals with Down Syndrome. *Perceptual and Motor Skills,* In Review.

Seeley, M.K., Umberger, B.R., & Shapiro, R.. The relation between mild limb-length inequality and asymmetry in healthy walking. *Human Movement Science,* In Review.

Gage, M.J., Myrer, J.W., Seeley, M.K. & Hopkins, J.T. Reliability of measuring active and relaxed abdominal muscle thickness using rehabilitative ultrasound imaging. *Journal of Orthopedic and Sports Physical Therapy,* In Review.

Seeley, M.K., Hunter, I., Roggia, A., Bateman, T.D., Larson, B.J, & Draper, D.O. A kinematic comparison of spring-loaded and traditional crutches. *Journal of Sport Rehabilitation,* Accepted for Publication.

Seeley, M.K., Umberger, B.R. & Shapiro, R. (2008). A test of the functional asymmetry hypothesis in walking. *Gait and Posture,* 28(1), 24–28.

Seeley, M.K., Uhl, T.L., McGinn, P.A., McCrory, J., Kibler, W.B. & Shapiro, R. (2008). A comparison of muscle activation patterns during traditional and abbreviated tennis serves. *Sports Biomechanics,* 7(2), 248–259.

Seeley, M.K. & Bressel, E. (2005). A comparison of upper-extremity reaction forces between the Yurchenko vault and floor exercise. *Journal of Sports Science and Medicine,* 4(2), 85–94.

Jacobs, C., Uhl, T.L., Seeley, M.K., Sterling, W. & Goodrich, L. (2005). Strength and fatigability of the dominant and non-dominant hip abductors. *Journal of Athletic Training,* 40, 203–206.

Refereed Articles, In Preparation

Seeley, M.K., Umberger, B.R., & Shapiro, R.. Bilateral differences in joint kinetics and functional asymmetry during able-bodied gait. *Will Be Submitted to Journal of Biomechanics.*

Seeley, M.K., Umberger, B.R., & Shapiro, R.. Are bilateral differences in electromyography related to functional asymmetry during able-bodied gait? *Will Be Submitted to Gait and Posture.*

Seeley, M.K., & Rice, J. Dominant and non-dominant leg contributions to support and propulsion at different walking speeds. *Will Be Submitted to Gait and Posture.*

Refereed Abstracts

Johnson, A., Myrer, J., Seeley, M.K., Feland, B., Eggett, D., & Anderson, J. (2010). Reliability of a sitting and a prone neck extensors endurance test. *Presented at the American Physical Therapy Association Combined Sections Meeting.* San Diego, CA, USA.

Dunn, T.R. & Seeley, M.K. (2009). Vertical displacement of the center of mass during spring-loaded crutch ambulation. *Presented at the Annual Meeting of the American Society of Biomechanics.* State College, PA, USA.

Smith, R.S., Rice, J.R., & Seeley, M.K. (2009). An evaluation of functional asymmetry at non-preferred walking speeds. *Presented at the Annual Meeting of the American Society of Biomechanics.* State College, PA, USA.

Sandberg, R.P., Seeley, M.K., Chacon, J.F., Monson, S.D., Funk, M.D., Nokes, N., & Mack, G.W. (2009). A metabolic evaluation of a novel spring-loaded crutch design. *Presented at the 56th American College of Sport Medicine Annual Meeting.* Seattle, WA, USA.

Villamonte, R., Vehrs, P.R., Feland, J.B., Johnson, A.W., Seeley, M.K., & Egget, D. (2009). Reliability of sixteen balance tests in individuals with Down syndrome. *Presented at the International Mosaic Down Syndrome Conference.* Cincinnati, OH, USA.

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2008). Are asymmetries in joint kinetics related to limb dominance? *Presented at the North American Congress on Biomechanics.* Ann Arbor, MI, USA.

Bateman, T.D., Seeley, M.K., Roggia, A.M., Larson, B.J., & Draper, D.O. (2008). An evaluation of mechanical energy transfer during traditional and spring-loaded crutch ambulation. *Presented at the Annual Meeting of the National Athletic Trainers Association.* St. Louis, MO, USA.

Gage, M.J., Myrer, J.W., Hopkins, J.T. & Seeley, M.K. (2008). Reliability of measuring active and relaxed lateral abdominal muscle thickness using ultrasound in healthy subjects. *Presented at the Annual Rocky Mountain Athletic Trainers Association Meeting and Symposium.* Phoenix, AZ, USA.

Gage, M.J., Myrer, J.W., Hopkins, J.T. & Seeley, M.K. (2008). Reliability of measuring active and relaxed lateral abdominal muscle thickness using ultrasound in healthy subjects. *Presented at the 55th American College of Sports Medicine Annual Meeting.* Indianapolis, IN, USA.

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2007). Can electromyographic asymmetries during gait be explained by limb dominance? *Presented at the Annual Meeting of the American Society of Biomechanics.* Palo Alto, CA, USA.

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2006). A test of the functional asymmetry hypothesis in walking. *Presented at the Annual Meeting of the American Society of Biomechanics.* Blacksburg, VA, USA.

Boland, M.R., Bader, J., Pienkowski, D., Uhl, T.L., Seeley, M.K., & Porter, D. (2006). Joint reaction forces in the distal radioulnar joint: A biomechanical model. *Presented at the 61st Annual Meeting of the American Society for Surgery of the Hand,* Washington DC, USA.

Shaffer, W.O, Margulies, J.Y., Cassidy, R.C., Marrs, B., Seeley, M.K., Stinton, S., Pienkowski, D., & Shapiro, R. (2006). *Lumbopelvic fixation: Biomechanical support for the concept of a pelvic foundation in spinal surgery.* Presented at the 119th Annual Meeting of the American Orthopaedic Association. San Antonio, TX, USA.

Seeley, M.K., Clasey, J., Umberger, B.R., & Shapiro, R. (2005). The effect of mild limb length inequality on able-bodied gait asymmetry: A preliminary analysis. *Presented at the XXth Congress of the International Society of Biomechanics and Annual Meeting of the American Society of Biomechanics*. Cleveland, OH, USA.

Seeley, M.K., Uhl, T. L., McGinn, P.A., Kibler, W.B., & Shapiro, R. (2004). Comparison of traditional and abbreviated tennis serves: a preliminary report. *Medicine & Science in Sports & Exercise. 36(5),* Supplement:S136.

Seeley, M.K. & Bressel, E. (2002). Ground reaction forces transmitted to the upper extremities during the Yurchenko vault and floor exercise. *Presented at the IV World Congress on Biomechanics.* Calgary, Alberta, Canada.

Seeley, M K., Bressel, E., & McNair, P.J. (2002). Ankle joint kinetics and proprioception: a comparison between rught and left limbs in able-bodied humans. *Medicine & Science in Sports & Exercise. 34(5),* Supplement 1:S253.

Technical Reports

Bateman, T.D., Seeley, M.K., Roggia, A.M., & Draper, D.O. (2008). An evaluation of mechanical energy transfer during traditional and spring-loaded crutch ambulation. *Requested by Millennial Medical Incorporated, Logan, UT, USA.*

Hanaki-Martin, S., Spigelman, T., Seeley, M.K., Turnquist, T., Uhl, T., Johnson, D. & Shapiro, R. (2008). Predicting perceived benefit in patients using an off-loading knee orthotic. *Presented to DonJoy, Orthopaedics LLC, Vista, CA, USA.*

Shapiro, R., Uhl, T.L., Seeley, M.K., McGinn, P.A., McCrory, J., & Kibler, W.B. (2005). A comparison of traditional and abbreviated tennis serves. *Presented to The United States Tennis Association.*

Book Reviews

Seeley, M.K. (2005). Review of: *The Biophysical Foundations of Human Movement.* Doody's Review Service (online). Available: http://www.doody.com.

Seeley, M.K. (2004). Review of: *Research Methods in Biomechanics.* Doody's Review Service (online). Available: Available: http://www.doody.com.

Seeley, M.K. (2003). Review of: *Fundamentals of Sports Injury Management, Second Edition.* Doody's Review Service (online). Available: http://www.doody.com.

Scientific Presentations

Johnson, A., Myrer, J., Seeley, M.K., Feland, B., Eggett, D., & Anderson, J. (2010). Reliability of a sitting and a prone neck extensors endurance test. *Presented at the American Physical Therapy Association Combined Sections Meeting.* San Diego, CA, USA.

Dunn, T.R. & Seeley, M.K. (2009). Vertical displacement of the center of mass during spring-loaded crutch ambulation. *Presented at the Annual Meeting of the American Society of Biomechanics.* State College, PA, USA.

Smith, R.S., Rice, J.R., & Seeley, M.K. (2009). An evaluation of functional asymmetry at non-preferred walking speeds. *Presented at the Annual Meeting of the American Society of Biomechanics.* State College, PA, USA.

Sandberg, R.P., Seeley, M.K., Chacon, J.F., Monson, S.D., Funk, M.D., Nokes, N., & Mack, G.W. (2009). A metabolic evaluation of a novel spring-loaded crutch design. *Presented at the 56th American College of Sport Medicine Annual Meeting.* Seattle, WA, USA.

Villamonte, R., Vehrs, P.R., Feland, J.B., Johnson, A.W., Seeley, M.K., & Egget, D. (2009). Reliability of sixteen balance tests in individuals with Down syndrome. *Presented at the International Mosaic Down Syndrome Conference.* Cincinnati, OH, USA.

Seeley, M.K. (2008). A Mechanical and Metabolic Evaluation of Ambulation Using Spring-loaded Crutches. *An Invited Lecture Presented at the University of Florida Center of Exercise Science Seminar Series.* Gainesville, FL, USA.

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2008). Are asymmetries in joint kinetics related to limb dominance? *Presented at the North American Congress on Biomechanics.* Ann Arbor, MI, USA.

Bateman, T.D., Seeley, M.K., Roggia, A.M., Larson, B.J., & Draper, D.O. (2008). An evaluation of mechanical energy transfer during traditional and spring-loaded crutch ambulation. *Presented at the Annual Meeting of the National Athletic Trainers Association.* St. Louis, MO, USA.

Gage, M.J., Myrer, J.W., Hopkins, J.T. & Seeley, M.K. (2008). Reliability of measuring active and relaxed lateral abdominal muscle thickness using ultrasound in healthy subjects. *Presented at the Annual Rocky Mountain Athletic Trainers Association Meeting and Symposium.* Phoenix, AZ, USA.

Gage, M.J., Myrer, J.W., Hopkins, J.T. & Seeley, M.K. (2008). Reliability of measuring active and relaxed lateral abdominal muscle thickness using ultrasound in healthy subjects. *Presented at the 55th American College of Sports Medicine Annual Meeting.* Indianapolis, IN, USA.

Lester, K.T., Larson, B.J., & Seeley, M.K. (2008). Biomechanical results of crutch ambulation. *Presented at the Big Sky Sports Medicine and Athletic Training Conference.* Big Sky, MT, USA.

Bateman, T.D., Seeley, M.K., Roggia, A.M., Larson, B.J., & Draper, D.O. (2008). An evaluation of mechanical energy transfer during traditional and spring-loaded crutch ambulation. *Presented at the Annual Utah Conference of Undergraduate Research.*

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2007). Can electromyographic asymmetries during gait be explained by limb dominance? *Presented at the Annual Meeting of the American Society of Biomechanics.* Palo Alto, CA, USA.

Seeley, M.K., Umberger, B.R., & Shapiro, R. (2006). *A test of the functional asymmetry hypothesis in walking.* Presented at the Annual Meeting of the American Society of Biomechanics. Blacksburg, VA, USA.

Boland, M.R., Bader, J., Pienkowski, D., Uhl, T.L., Seeley, M.K., & Porter, D. (2006). *Joint reaction forces in the distal radioulnar joint: A biomechanical model.* Presented at the 61st Annual Meeting of the American Society for Surgery of the Hand. Washington DC, USA.

Shaffer, W.O, Margulies, J.Y., Cassidy, R.C., Marrs, B., Seeley, M.K., Stinton, S., Pienkowski, D., & Shapiro, R. (2006). *Lumbopelvic fixation: Biomechanical support for the concept of a pelvic foundation in spinal surgery.* Presented at the Annual Meeting of the International Society for the Study of the Lumbar Spine. Bergen, Norway.

Shaffer, W.O, Margulies, J.Y., Cassidy, R.C., Marrs, B., Seeley, M.K., Stinton, S., Pienkowski, D., & Shapiro, R. (2006). *Lumbopelvic fixation: Biomechanical support for the concept of a pelvic foundation in spinal surgery.* Presented at the 119th Annual Meeting of the American Orthopaedic Association. San Antonio, TX, USA.

Seeley, M.K., Clasey, J., Umberger, B., & Shapiro, R. (2005). *The effect of mild limb length inequality on able-bodied gait asymmetry: A preliminary analysis.* Presented at the XXth Congress of the International Society of Biomechanics, Cleveland, OH, USA.

Porter, D., Seeley, M.K., & Boland, M. (2005). *A distal radial-ulnar joint model.* Presented to the University of Kentucky Department of Orthopaedic Surgery and Sports Medicine, Lexington, KY, USA.

Shaffer, W., Margulies, J., Cassidy, C., Marrs, B., Seeley, M.K., Pienkowski, D., & Shapiro, R. (2005). *Sacroiliac Instability: A novel study of scoliosis constructs.* Presented at the Harrington Spine Symposium, Kansas City, MO, USA.

Seeley, M.K., Uhl, T.L., McGinn, P.A., Kibler, W.B., & Shapiro, R. (2004). *A comparison of traditional and abbreviated tennis serves: a preliminary report.* Presented at the National Meeting of the American College of Sports Medicine, Indianapolis, IN, USA.

Seeley, M.K., Uhl, T.L., McGinn, P.A., & Shapiro, R. (2004). *A biomechanical comparison of the traditional and abbreviated tennis serves.* Presented at the Spring Research Conference, University of Kentucky, Lexington, KY, USA.

Jacobs, C., Uhl, T.L., Seeley, M.K., Sterling, W., & Goodrich, L. (2004). *Strength and fatigability of the dominant and non-dominant hip abductors.* Presented at the Annual Meeting of the Southeast National Athletic Trainers Association, Atlanta, GA, USA.

Seeley, M.K. & Bressel, E. (2003). *A comparison of upper-extremity kinetics during the Yurchenko vault and floor exercise.* Presented at the Annual Meeting of the Southeast American College of Sports Medicine, Atlanta, GA, USA.

Seeley, M.K. & Bressel, E. (2002). *A comparison of upper-extremity kinetics during the Yurchenko vault and floor exercise.* Presented at the IV World Congress of Biomechanics, Calgary, Alberta, Canada.

Seeley, M.K., Bressel, E., & McNair, P.J. (2002). *Ankle joint kinetics and proprioception: A comparison between right and left limbs in able-bodied humans.* Presented at the Annual Meeting of the American College of Sports Medicine, St. Louis, MO, USA.

Seeley, M.K. and Bressel, E. (2001). *Passive ankle joint stiffness: Is it an invariant feature between legs?* Presented at the 2001 Intermountain Graduate Paper/Poster Symposium, Logan, UT, USA.

Funding

Graduate Mentoring Award (2009). Funding Source: Brigham Young University Graduate School. Amount Requested: $4,000; Amount Funded: $4,000. Role: Faculty Mentor.

Can Antalgic Gait Promote Osteoarthritis? (2008). Funding Source: Brigham Young University Gerontology Program. Amount Requested: $4,051.69. Amount Funded: $4,051.69. Role: Primary Investigator.

Creation of Multimedia Tools for Teaching Undergraduate Biomechanics (2008). Funding Source: National Science Foundation, Program Solicitation NSF 08-546, Course Curriculum, and Laboratory Improvement. Amount Requested: $150,000. Amount Funded: Not Funded. Role: Co-Primary Investigator.

Metabolic Cost of Spring-loaded Crutch Ambulation (2008). Funding Source: DonJoy Orthopaedics and Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $1,820; Amount Funded: $1,820. Role: Primary Investigator.

Investigating the Neuromuscular and Mechanical Effects of Experimentally Induced Knee Pain During Walking (2008). Funding Source: College of Health and Human Performance Faculty Fellowship. Amount Requested: $4,342.69. Amount Funded: $3,343. Role: Co-Primary Investigator.

Additional Matlab Training (2008). Funding Source: College of Health and Human Performance Faculty Fellowship. Amount Requested: $550; Amount Funded: $550.

Biomechanical Analysis of the Golf Swing (2007). Funding Source: Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $3,200; Amount Funded: $577. Role: Faculty Mentor.

Graduate Mentoring Award (2007). Funding Source: Brigham Young University Graduate School. Amount Requested: $4,000; Amount Funded: $4,000. Role: Faculty Mentor.

Course Development Project (2007). Funding Source: Brigham Young University Faculty Center. Amount Requested: $300; Amount Funded: $300.

The Influence of Anthropometrics on a Novel Mobile Walking Device (2007). Funding Source: Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $4,300; Amount Funded: $3,400. Role: Primary Investigator.

An evaluation of the efficacy of pressure biofeedback in resolving lower back pain (2007). Funding Source: Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $6,800; Amount Funded: $4,700. Role: Primary Investigator.

Neck extensor muscle endurance in a sitting position compared to a prone position in healthy individuals (2007). Funding Source: Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $1,900; Amount Funded: $1,300. Role: Co-investigator.

Neck extensor muscle fatigue and elbow flexor muscle activation (2007). Funding Source: Brigham Young University Mary Lou Fulton Chair for the College of Health and Human Performance. Amount Requested: $2,350; Amount Funded: $1,950. Role: Co-investigator.

A Biomechanical Evaluation of a Novel Mobile Walking Device (2006). Funding Sources: Millennial Medical Incorporated (Amount Requested: $4,200, Amount Funded: $4,200) and Brigham Young University Office of Research and Creative Activities Grant (Amount Requested: $1,800, Amount Funded: $1,800). Role: Primary Investigator.

Lower-extremity Neuromechanics Related to Physical Activity (2006). Funding Source: Brigham Young University Mentoring Environment Grant. Amount Requested: $20,000; Not Funded. Role: Co-Investigator.

Creating An Exercise Sciences Research Mentoring Group (2006). Funding Source: Brigham Young University Mentoring Environment Grant. Amount Requested: $19,760; Not Funded. Role: Co-Investigator.

Walking Speed and the Functional Asymmetry Hypothesis (2006). Funding Source: College of Health and Human Performance Faculty Fellowship. Amount Requested: $3,775; Amount Funded: $3,775. Role: Primary Investigator.

Evaluation of an Isometric Endurance Exercise as a Rehabilitation Tool (2006). Funding Source: Brigham Young University Faculty Fellowship. Amount Requested: $2,910; Amount Funded: $2,910. Role: Co-Investigator.

Perceived Benefit for Patients Using A Knee Prosthetic (2006). Funding Source: DonJoy Orthopedics. Amount Requested: $22,000; Amount Funded: $15,000. Role: Primary Investigator.

Graduate School Research Grant, University of Kentucky, 2005 ($400)

Graduate School Research Grant, University of Kentucky, 2004 ($400)

Sarah Geurin Graduate Scholarship, University of Kentucky, 2004 ($750)

Arvle and Ellen Turner Thacker Research Endowment, University of Kentucky, 2004 ($1,000)

Graduate School Travel Grant, University of Kentucky, 2003 ($400)

Graduate School Research Grant, University of Kentucky, 2003 ($400)

Graduate Student Senate Travel Award, Utah State University, 2002 ($375)

Professional Affiliations

American Society of Biomechanics (ASB), 2003–present

Professional Certifications

National Athletic Trainers Association Board of Certification, ATC 2001–present

Awards & Honors

Faculty Mentor for the Award For Best Research Presentation From an Undergraduate Student, National Athletic Trainers Association Foundation Student Research Awards Competition, 2008

Outstanding Recent Graduate Award, College of Education, Utah State University, 2008

Outstanding Recent Graduate Award, Department of Health, Physical Education, and Recreation, Utah State University, 2008

Hackensmith Award, Presented to the Outstanding Graduate Student, Department of Kinesiology and Health Promotion, University of Kentucky, 2005

Participant in the Excellence in Science Program, American Association for the Advancement of Science, 2004

Robins Award Finalist, Utah State University, 2002

Teaching Assistant of the Year, College of Education, Utah State University, 2002

Professional Activity

Invited Reviewer for the Following Academic Journals:
- Journal of Biomechanics
- Journal of Athletic Training
- Sports Medicine, Arthroscopy, Rehabilitation, Therapy, and Technology
- Medical Principles and Practice
- Journal of Sport Rehabilitation

Member of the Communications Committee, American Society of Biomechanics, 2009-present

Moderator, Utah Conference on Undergraduate Research, 2008

Invited Lecturer, *A Mechanical and Metabolic Evaluation of Ambulation Using Spring-loaded Crutches*, Presented for the University of Florida Center of Exercise Science Seminar Series, 2008

Invited Lecturer, Undergraduate Biomechanics Courses, Utah State University, 2006, 2007, 2008

Invited Lecturer, Undergraduate Anatomical and Mechanical Kinesiology Course, University of Kentucky, 2004-2006

Invited Presenter, University of Kentucky Girls in Science Program, 2005

Invited Lecturer, Seminar Series for Biomedical Engineering, University of Kentucky, 2005

Invited Lecturer, Advanced Seminar in Athletic Training, University of Kentucky, 2004

Biodynamics Laboratory Web Site Manager, University of Kentucky, 2003–2005

Invited Lecturer, Seminar in Exercise Science, University of Kentucky, 2002

Graduate Student Senator, Department of Health, Physical Education, and Recreation, Utah State University, 2001–2002.

Service Activities

University/College/Departmental Committees (Brigham Young University)

Ad-hoc Search Committee, Biomechanics Faculty Position, 2008

Departmental Representative, College Magazine Committee, 2007–present

Ad-hoc Search Committee, Athletic Training Faculty Position, 2007

University Office of Research and Creative Activities Symposium Review Committee, 2006

Professional References

Eadric Bressel, EdD, Assistant Professor; Department of Health, Physical Education and Recreation; Utah State University, Logan UT 84322-7000; Phone: 435.797.7216; FAX: 435.797.3759; E-mail: eadric.bressel@usu.edu

Robert Shapiro, PhD, FACSM, Professor; Department of Kinesiology and Health Promotion, and Biomedical Engineering, Director of the University of Kentucky Biodynamics Lab; University of Kentucky, Lexington, KY, 40506-0070; Phone: 859.257.9852; FAX: 859.257.1856; E-mail: rshap01@uky.edu

Timothy L. Uhl, PhD, ATC, PT, Professor and Director of Research; Division of Graduate Athletic Training; Department of Rehabilitative Sciences, 210C College of Health Sciences Building, 900 Limestone Avenue, University of Kentucky, Lexington, KY, 40536-0200; Phone: 859.323.1100 ext. 8.0858; FAX: 859.323.6005; E-mail: tluhl2@uky.edu

Brian Umberger, PhD, Assistant Professor; Department of Kinesiology; University of Massachusetts Amherst, 110 Totman Building, 30 Eastman Lane, Amherst MA 01003-9258; Phone: 413.545.1436; FAX: 413.545.2906; E-mail: umberger@kin.umass.edu