

CURRICULUM VITAE

Katrina Shaun Maluf, PT, Ph.D.
School of Exercise and Nutritional Sciences
Doctor of Physical Therapy Program
San Diego State University
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EDUCATION AND LICENSURE

Education

University Colorado Boulder Post Doctoral Fellow	2005 Neurophysiology
Washington University in St. Louis PhD	2002 Movement Science
Washington University in St. Louis MSPT	1999 Physical Therapy
University of Arizona BS	1996 Microbiology/Chemistry

Licensure

State of Missouri Licensed Physical Therapist	<u>Dates</u> 1999-2004
State of Iowa Licensed Physical Therapist	2005-200
State of Colorado Licensed Physical Therapist (# 8247)	2003-present
State of California Licensed Physical Therapist	In progress

TEACHING POSITIONS

Associate Professor San Diego State University	Fall 2014 - present Clinical Reasoning, Psychosocial Rehabilitation
Adjunct Associate Professor University Colorado Boulder	2011 - present Integrative Physiology
Associate Professor and Program Director University Colorado Denver	2010 – 2014 Rehabilitation Science, Clinical Reasoning
Assistant Professor University of Colorado Denver	2007 – 2010 Applied Histology, Evidence Based Practice

Assistant Professor
University Iowa

2005 - 2006
Evidence Based Practice

Adjunct Clinical Professor
University Colorado Health Science Center

2004 - 2005
Applied Histology

TEACHING EFFECTIVENESS

1. Curriculum Development

During my last 4 years as an Associate Professor at the University of Colorado, I transitioned from traditional classroom teaching to curriculum development and administrative responsibilities at the Program level. Extensive experience with curriculum design has informed my participation on the Curriculum Committee for the new Doctor of Physical Therapy Program at SDSU.

a. Curriculum Committee, San Diego State University

Based on prior curriculum development experience at the University of Colorado, I was invited to serve on the Curriculum Committee for the Doctor of Physical Therapy (DPT) Program upon my hire at SDSU. My responsibilities on this committee have included participation in a comprehensive curricular review for the DPT Program, which received its first professional accreditation in 2015. To facilitate this goal, I created a master spreadsheet of *DPT Curriculum Objectives*, which committee members are now using to match course objectives from each instructors' syllabi to 1) DPT Program Goals, and 2) CAPTE accreditation standards. This spreadsheet will allow the committee to identify gaps, redundancies, and opportunities for content integration across courses as the DPT Program continues to evolve. Additionally, to address concerns expressed by clinical instructors that some students demonstrate marginal clinical reasoning skills during their final internships, I have also taken responsibility for implementing a standardized approach to clinical decision making across all management courses, which will culminate in an Advanced Clinical Reasoning course with complex patient cases in the final year of the curriculum.

b. Clinical Reasoning Curriculum Coordinator, University of Colorado

Faculty in the University of Colorado Denver (UCD) Physical Therapy Program approved a major overhaul of the curriculum in 2012 to accommodate salaried, 12-month internships for all physical therapy students in the final year of the program. To accomplish this objective, UCD joined a national consortium of 12 other physical therapy programs that are currently piloting this new model of clinical education. As chair of the Clinical Reasoning Task Force at UCD, I assumed responsibility for developing a sequence of new didactic and clinical education courses in clinical reasoning to ensure student preparedness for their final clinical internship. The course sequence progressed from Evidence Based Practice in the first year, to the application of a standardized clinical decision making framework for both simulated and real patient cases in an interactive Grand Rounds format with participation from clinicians in the community. An innovative aspect of this curriculum was the use of online discussion forums to facilitate collaboration between students and clinical instructors across remote clinical sites. The final two courses in this sequence focused on advanced clinical

reasoning for complex patient cases, and preparation of a written case report describing the clinical decision making process for an entire episode of care for an actual patient encountered in the clinical setting. The new Clinical Reasoning curriculum at UCD was successfully implemented in Fall 2014.

c. Rehabilitation Science Ph.D. Program Curriculum Development, University of Colorado

I assumed primary responsibility for developing the interdisciplinary curriculum for a Ph.D. Program in Rehabilitation Science at the University of Colorado. Responsibilities included preparation and submission of a written proposal describing results of an educational needs survey, curriculum requirements, and administrative policies and procedures for the new program. The proposal was approved by the University of Colorado Board of Regents and the Colorado Department of Higher Education in 2010, and I served as the founding Program Director from 2010-2014. Curriculum development for this interdisciplinary program required integration of existing courses across three University campuses with new discipline-specific courses in Rehabilitation research and teaching. In addition to several new graduate courses, I also developed Preliminary and Comprehensive Examination materials and prepared annual Program Review and Assessment reports for the Graduate School.

2. Teaching Innovations

I have had the opportunity to teach in both large and small classroom settings, as well as develop online and hybrid distance-learning courses using state-of-the-art technologies. I have served as a course coordinator, instructor, and guest lecturer for entry-level Doctor of Physical Therapy students, post-professional Doctor of Physical Therapy students, and PhD students. Instructional methods have included didactic lectures, small group and individual case-based learning, and clinical skills laboratories.

- a. Spr 2017. Course Coordinator & Instructor.** Evidence Based Practice IV: Advanced Clinical Reasoning. (DPT 888). Doctor of Physical Therapy Program, San Diego State University. A new course in advanced clinical reasoning is currently under development for Spring 2017. This course will prepare students to integrate current evidence with critical reasoning in the International Classification of Disability, Functioning, and Health (ICF) framework to facilitate patient-centered decision making in the examination, prognosis, and intervention for complex patient cases across a variety of clinical practice settings. This course will utilize problem-based learning strategies implemented in the Learning Research Studio at SDSU.
- b. Spr 2016. Course Coordinator & Instructor.** Psychosocial Aspects of Rehabilitation. (DPT 878). Doctor of Physical Therapy Program, San Diego State University. I developed and taught a course in Psychosocial Aspects of Rehabilitation for entry-level DPT students in Spring 2016. The revised course included emerging research on stress physiology and instruction in motivational interviewing techniques to facilitate behavioral change. This expansion of course content reflects current advances in clinical practice.
- c. Spr 2016, Fall 2015. Course Instructor.** Doctoral Research (DPT 897). Doctor of Physical Therapy Program, San Diego State University. I provide individual mentoring for up to three small groups of DPT students in literature

review, research project design, data collection, and data analysis for degree-mandated doctoral research projects. Critical reasoning and problem solving are the primary learning objectives of this course.

- d. Spr 2016, Fall 2015. **Course Instructor.** Special Study (ENS 499). School of Exercise and Nutritional Sciences, San Diego State University. I provide individualized mentoring for 2-3 undergraduate students per semester in literature review, research project design, data collection, and data analysis for elective independent study projects. Facilitating student interest and experience in health-related research and clinical career opportunities is the primary objective of this course.
- e. Fall 2013. **Course Coordinator & Instructor.** Neurophysiology of Pain. (RHSC 7500). Rehabilitation Science PhD Program, University of Colorado Denver. Aurora, CO. Developed a new graduate level course in pain neurophysiology which surveyed classic and contemporary pain research and culminated in student research presentations during a two-day tour of prominent pain research facilities at the University of Iowa.
- f. Spr 2013. **Course Coordinator & Instructor.** Independent Study in Rehabilitation Science. (RHSC 8900). Rehabilitation Science PhD Program, University of Colorado Denver. Aurora, CO. Coordinated an independent study in Matlab programming which culminated in the development of a functional data analysis program for automated electrocardiography removal from electromyographic signals.
- g. Fall 2012-13, Spr 2013. **Course Coordinator & Instructor.** Rehabilitation Science Seminar. (RHSC 7001). Rehabilitation Science PhD Program, University of Colorado Denver. Aurora, CO. Coordinated an interdisciplinary seminar series for Rehabilitation Science graduate students which included critical appraisal of lecture topics and interactive discussions with leading scientists across multiple disciplines. Networking opportunities provided by this course resulted in several pre- and post-doctoral placements for Rehabilitation Science students.
- h. Fall 2011-12, Spr 2014. **Course Coordinator & Instructor.** Research Practicum in Rehabilitation Science I/II. (RHSC 7910/7911). Rehabilitation Science PhD Program, University of Colorado Denver. Aurora, CO. Coordinated individual research practicum experiences with faculty mentors, in addition to culminating Research in Progress presentations for Rehabilitation Science PhD students.
- i. Spr/Fall 2012. **Course Instructor.** Patient Care Seminar I (DPTR 8211). Transitional Doctor of Physical Therapy Program. University of Colorado Denver. Aurora, CO. Mentored post-professional physical therapy students in articulating their clinical reasoning process in a written case report and peer-reviewed presentation for an actual patient case.
- j. Spr 2011-2012. **Course Coordinator & Instructor.** Evidence Based Practice II. (PHTY 604). Transitional Doctor of Physical Therapy Online Distance Program. Virginia Commonwealth University. Richmond, VA. Developed and implemented online instructional videos, applied learning activities, and assessments in Evidence Based Practice for practicing clinicians enrolled in a distance learning program.
- k. Spr 2011. **Continuing Education Course Coordinator & Instructor.** Searching for Evidence to Improve Clinical Practice. University of Colorado Denver, Aurora, CO. Developed and taught a half-day continuing education

course for practicing clinicians and clinical instructors. Course included large group lecture and interactive search and appraisal small group activities for simulated patient cases.

- l.** Fall 2008, 2010, 2012; Spr 2009, 2012. **Clinical Research Instructor.** Clinical Education III/IV (DPTR 7933/34). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Mentored Doctor of Physical Therapy students in an independent research project during a Research (50%) / Clinical (50%) affiliation. All students presented their research findings at a national and/or international scientific conference.
- m.** Sum 2008 – Spr 2011. **Course Coordinator & Instructor.** Evidence Based Practice (DPTR 8111). Transitional Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Developed and implemented a hybrid course in Evidence Based Practice for practicing clinicians with online instructional videos and assessments, supplemented by in-class search and appraisal laboratories for simulated patient cases.
- n.** Spr/Fall 2007 – 2014. **Instructor.** Patient Care Seminar III (DPTR 7613). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Mentored individual students in articulating their clinical reasoning process in a written case report and peer-reviewed presentation for an actual patient case.
- o.** Fall 2007 – 2013. **Instructor.** Patient Care Seminar II (DPTR 6612). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Mentored small groups of students in articulating their clinical reasoning process in a written case report and peer-reviewed presentation for a complex simulated patient case.
- p.** Spr 2007 – 2008. **Instructor.** Patient Care Seminar I (DPTR 5611). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Mentored small groups of students in articulating their clinical reasoning process in a written outline and peer-reviewed presentation for a basic simulated patient case.
- q.** Sum 2007. **Instructor.** EMG Applications in Physical Rehabilitation Unit in Movement Science II course (DPTR 6102). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Developed and taught a unit in basic electromyography (EMG) concepts, including an interactive laboratory demonstration of EMG biofeedback for clinical applications.
- r.** Fall 2004; Sum 2007 – 2012. **Instructor.** Histology (DPTR 5003). Doctor of Physical Therapy Program, University of Colorado Denver. Aurora, CO. Developed and taught a unit in applied histology, focusing on musculoskeletal tissue injury and repair. Unit included large group lecture and interactive cases to demonstrate clinical application of physiologic principles. By request of the Program Director, lectures were converted to online instructional video modules upon leaving the University of Colorado to make this content available to future students.
- s.** Spr 2006. **Course Coordinator & Instructor.** Critical Inquiry in Physical Therapy I (101:251). Graduate Program in Physical Therapy and Rehabilitation Science, University of Iowa. Iowa City, IA. Coordinated Capstone presentations for physical therapy faculty-student research projects.
- t.** Fall 2005 – 2006. **Course Coordinator & Instructor.** Research in Physical Therapy (101:248). Graduate Program in Physical Therapy and Rehabilitation Science, University of Iowa. Iowa City, IA. Developed and taught a course in

evidence based practice for entry level physical therapy students. Course included large group lecture and interactive small group activities to facilitate clinical application.

- u. Fall 2004. **Clinical Laboratory Assistant.** Movement Science I (DPTR 5270). Doctor of Physical Therapy Program, University of Colorado Health Sciences Center. Denver, CO. Served as a laboratory assistant for practice of manual patient handling skills in Movement Science course.
- v. Spr 2001, 2002. **Course Co-Coordinator & Instructor.** Tissue Adaptation to Physical Stress—Implications for Physical Therapists. Developed and taught a continuing education course for Clinical Education instructors and post-professional DPT students at Washington University in St. Louis. Large group lecture format.
- w. Spr 2002. **Instructor.** Tissue Mechanics: Experimental Findings and Research Applications Unit in Biomechanics course. Developed and taught a unit on the mechanics of tissue injury in the Interdisciplinary PhD Program in Movement Science, Washington University in St. Louis. Large group lecture format.
- x. Fall 2001. **Instructor.** Material Properties of Biological Tissues Unit in Kinesiology I course. Program in Physical Therapy, Washington University in St. Louis. Developed and taught a unit on the mechanics of tissue injury for entry-level physical therapy students. Large group lecture format.
- y. Fall 2000 & 2002. **Instructor.** Mechanisms for Control of Human Posture Unit in Biocontrol course. Developed and taught the motor control unit for graduate students in the Interdisciplinary PhD Program in Movement Science, Washington University in St. Louis. Large group lecture format with facilitated small group discussion.
- z. Spr 1999, 2002. **Clinical Laboratory Assistant.** Diagnosis & Treatment of Movement Impairment Syndromes, Levels I & II. . Served as a laboratory assistant for practice of manual patient handling skills in a continuing education course at Washington University in St. Louis.

3. Student Mentoring

I have had the opportunity to serve as a primary research mentor for post-doctoral fellows, PhD students, Doctor of Physical Therapy (DPT) students, and undergraduate and high school students. Graduate and undergraduate students under my mentorship have a consistent record of scholarly achievements including publications in peer-reviewed journals, presentations at national and international scientific conferences, and grant fellowships and awards.

a. Primary Post-Doctoral Advisor

1. Masataka Umeda, Ph.D. Apr 2009 – Mar 2011. Graduate School, University of Colorado Denver
 - a. Project title
Exercise-induced hypoalgesia in patients with fibromyalgia
 - b. Student awards
 - i. 2009 International Association for the Study of Pain John J. Bonica Postdoctoral Trainee Fellowship
 - ii. 2010 Center for Women's Health, Best Poster Award
 - c. Current position
Assistant Professor of Exercise Psychology, Texas Tech University

b. Primary Ph.D. Thesis Advisor

1. Ryan Marker, DPT. Sep 2011 – Jul 2015. Rehabilitation Science PhD Program, University of Colorado, Aurora, CO.
 - a. Thesis Title
 1. Cortical and subcortical contributions to stress-induced muscle activity and relationships to chronic neck pain
 - b. Student awards
 1. 2011-12 Foundation for Physical Therapy Kendall Scholarship
 2. 2012 Delsys Foundation Travel Award, XIXth International Society of Electrophysiology and Kinesiology Congress, Brisbane, Australia.
 3. 2013 University of Colorado 27th Annual Student Research Forum Best Poster Award
 4. 2013-14 Foundation for Physical Therapy Promotion of Doctoral Studies I (PODS I) Scholarship
 5. 2013-14 National Science Foundation GK-12 Fellowship
 6. 2014-15 Foundation for Physical Therapy Promotion of Doctoral Studies II (PODS II) Scholarship
 7. 2014 University of Colorado Hirs Travel Award
 - c. Post-doctoral position upon graduation

Post-doctoral Research Fellow, University of Colorado Health and Wellness Center
2. Bahar Shahidi, DPT, PhD. Sep 2011 – Dec 2014. Rehabilitation Science PhD Program, University of Colorado, Aurora, CO.
 - a. Thesis Title

Psychological, neurophysiological, and physical risk factors for the development of chronic neck pain
 - b. Student awards
 1. 2011-12 Foundation for Physical Therapy Kendall Scholarship
 2. 2012-13 Foundation for Physical Therapy Promotion of Doctoral Studies I (PODS I) Scholarship
 3. 2013, 2014, 2015 Marilyn Gossman Graduate Student Research Seminar Travel Award, Combined Sections Meeting of the APTA
 4. 2013-14 Foundation for Physical Therapy Promotion of Doctoral Studies II (PODS II) Scholarship
 5. 2014 Neurobiology of Stress Workshop Travel Award
 6. 2014 University of Colorado Hirs Travel Award
 - c. Post-doctoral position upon graduation

Post-doctoral Research Fellow, University of California San Diego, Muscle Physiology Laboratory
3. David Williams, PT, Ph.D. Jun 2005 – Dec 2006. Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.
 - a. Thesis Title

Neuromuscular fatigue of the human quadriceps muscle
 - b. Current Position

Instructor, Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.

4. Jennifer Stephenson, Ph.D. Sep 2007 – Nov 2010. Clinical Sciences PhD Program, University of Colorado, Aurora, CO.
 - a. Thesis Title
Motor control of the trapezius muscle during acute exposure to low and high levels of psychosocial stressors
 - b. Student awards
 1. 2008 Clinical Science Program Outstanding PhD Student in Clinical Investigation
 2. 2010 International Association for the Study of Pain Travel Award to attend 13th World Congress on Pain, Montreal, QC
 3. 2010 International Motoneuron Society and UCD Clinical Science Program Travel Awards to attend International Motoneuron Meeting, Paris, France
 4. 2010 Transcranial Magnetic Stimulation Summer School Best Poster Award, Oxford, UK
 - c. Post-doctoral position upon graduation
Post-doctoral Research Fellow, University College London, Whole Body Sensorimotor Lab
- c. **Ph.D. Thesis Committee Member**
 1. Sum 2016. Andrew Kittelson. **Dissertation Examination Committee.** Rehabilitation Science PhD Program, University of Colorado Anschutz Medical Campus, Aurora, CO.
 2. Spr 2014. Andrew Kittelson. **Comprehensive Examination Committee.** Rehabilitation Science PhD Program, University of Colorado Anschutz Medical Campus, Aurora, CO.
 3. Spr 2012. Matthew Holmes. **Dissertation Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 4. Fall 2010. Michael Pasco. **Dissertation Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 5. Fall 2009. Mark Jesunathadas. **Dissertation Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 6. Fall 2009. Matthew Holmes. **Comprehensive Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 7. Fall 2008. Michael Pasco. **Comprehensive Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 8. Spr 2008. Zachary Riley. **Dissertation Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado, Boulder, CO.
 9. Fall 2007. Zachary Riley. **Comprehensive Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado, Boulder, CO.
 10. Spr 2007. Mark Jesunathadas. **Comprehensive Examination Committee.** PhD Graduate Program in Integrative Physiology, University of Colorado Boulder, Boulder, CO.
 11. Fall 2006. Jennifer Lee. **Comprehensive Examination Committee.** PhD

Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.

12. Sum 2006. Smita Rao. **Dissertation Examination Committee.** PhD Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.
13. Sum 2006. Masaki Iguchi. **Comprehensive Examination Committee.** PhD Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.
14. Spr 2006. Sangeetha Madhavan. **Dissertation Proposal Committee.** PhD Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.

d. DPT Thesis Committee Member

1. Spring 2016. Sara-Rosabelle Barreyro, Jillian Gerbracht, Heather Lyons, Supamas Tseng, Jeffrey Wood **DPT Doctoral Project Examination Committee.** Doctor of Physical Therapy Program, San Diego State University.
2. Spring 2015. Jared Brown, Jason Averilla, Jessica Sacks. **DPT Doctoral Project Examination Committee.** Doctor of Physical Therapy Program, San Diego State University. San Diego, CA.

e. Student Research Project Advisor

1. Jan 2016 – present. **Special Studies Advisor.** Paige Kettenberg. Project Title: *Ethnic differences in pain-related anxiety and modulation of affective responses to evoked heat and pressure pain.* School of Exercise and Nutritional Sciences, SDSU, San Diego, CA.
2. Jan 2016 – present. **Summer Undergraduate Research Advisor.** Luisa Davila-Pablo. Project Title: *Ethnic differences in pain-related anxiety and modulation of affective responses to evoked heat and pressure pain.* School of Exercise and Nutritional Sciences, SDSU, San Diego, CA.
3. Jan 2016 – May 2018. **DPT Capstone Research Project Advisor.** Christina Crossen, Jessica Herman, Marie Krouse, Victor Larios, Elana Miller. Project Title: *Ethnic differences and associations between sedentary behavior and pain sensitivity.* Physical Therapy Program, SDSU, San Diego, CA.
4. Aug 2015 – present. **Special Studies Advisor.** Jaime Zinn. Project Title: *Longitudinal assessment of sleep and physical activity.* School of Exercise and Nutritional Sciences, SDSU, San Diego, CA.
5. Jan 2015 – May 2017. **DPT Capstone Research Project Advisor.** Zane Brandt, Jaelyn Christopher, Chelsea Kane, Tonia Malave, Megan Moffat, Tianna Woods. Project Title: *Association between psychological health and affective responses to pain.* Physical Therapy Program, SDSU, San Diego, CA.
6. Sep 2013 – Nov 2013. **Denver Student Training in Research Science (STaRS) Research Advisor.** Karina Mosqueda, Denver Public High School student. Project Title: *Motor indices of stress during feeding in healthy infants.* Physical Therapy Program, University of Colorado, Aurora, CO.
7. Sep 2012 – Jan 2013. **Clinical Education IV Research Advisor.** Jennifer Molner, DPT student. Project Title: *Effects of menstrual cycle phase on*

- pain perception in women with chronic neck pain.* Physical Therapy Program, University of Colorado, Aurora, CO.
8. Aug 2012 – Dec 2013. **Work-Study Research Advisor.** Emily Matthews, DPT student. Project Title: *Examination of diffuse noxious inhibitory controls as a predictor of neck pain.* Physical Therapy Program, University of Colorado, Aurora, CO.
 9. Aug 2012 – Dec 2014. **Work-Study Research Advisor.** Stephanie Foster, DPT student. Project Title: *Optimizing TMS parameters for investigating SICI during an active contraction.* Physical Therapy Program, University of Colorado, Aurora, CO.
 10. Jan 2012 – Dec 2013. **Work-Study Research Advisor.** Kristen Knowles, DPT student. Project Title: *Stress-evoked muscle activity in occupational myalgia.* Physical Therapy Program, University of Colorado, Aurora, CO.
 11. Aug 2011 – May 2012. **Work-Study Research Advisor.** Lisa Walde, DPT student. Project Title: *Trapezius corticospinal excitability.* Physical Therapy Program, University of Colorado, Aurora, CO.
 12. Aug 2011 – Dec 2013. **Work-Study Research Advisor.** Betsy Kyle, DPT student. Project Title: *Stress-evoked muscle activity in occupational myalgia.* Physical Therapy Program, University of Colorado, Aurora, CO.
 13. Aug 2011 – Dec 2013. **Work-Study Research Advisor.** Danika Friedley, DPT student. Project Title: *Stress-evoked muscle activity in occupational myalgia.* Physical Therapy Program, University of Colorado, Aurora, CO.
 14. May 2012 – Apr 2014. **Faculty Mentor.** Andrew Kittelson, PhD student. Integrative Physiology of Aging Training Grant (T32-AG00279, PI: Robert Schwartz). Project Title: *Examination of Pain Phenotypes in Knee Osteoarthritis.* Rehabilitation Science Program, University of Colorado, Aurora, CO.
 15. Jan 2012- May 2012. **University of Colorado Undergraduate Psychology Research Internship Advisor.** Ashley Haight. Project Title: *Psychosocial risk factors for chronic neck pain.* Physical Therapy Program, University of Colorado, Aurora, CO.
 16. May 2011 – Jun 2011. **Aurora LIGHTS Minority Summer Research Internship Advisor. HRSA Health Careers Opportunity Program (HCOP).** Magnolia Landa-Posas, High School student. Project Title: *Relationship between cervical posture and muscle activity.* Physical Therapy Program, University of Colorado, Aurora, CO.
 17. Jun 2011 – Sep 2011. **Summer Research Internship Advisor.** Ryan Novoa, Exercise and Sports Science undergraduate student, Oregon State University. Project Title: *Sex and age effects on stress-evoked motor unit activity in patients with chronic neck pain.* Physical Therapy Program, University of Colorado, Aurora, CO.
 - a. University of Colorado Office of Diversity Scholarship Awarded 2011
 18. Aug 2010 – Sep 2012. **Work-Study Research Advisor.** Jennifer Molner, DPT student. Project Title: *Stress-evoked muscle activity in occupational myalgia.* Physical Therapy Program, University of Colorado, Aurora, CO.
 19. Aug 2009 – Sep 2011. **Work-Study Research Advisor.** Crystal Langer, DPT student. Project Title: *Effects of menstrual cycle phase on pain perception in women with chronic neck pain.* Physical Therapy Program, University of Colorado, Aurora, CO.
 20. Aug 2009 – Sep 2011. **Work-Study Research Advisor.** AnaLuisa Miller,

- DPT student. Project Title: *Sex and age effects on stress-evoked motor unit activity in patients with chronic neck pain*. Physical Therapy Program, University of Colorado, Aurora, CO.
21. Mar 2009 – Sep 2010. **Work-Study Research Advisor**. Courtney Wiseman, DPT student. Project Title: *Effects of menstrual cycle phase on pain perception in women with chronic neck pain*. Physical Therapy Program, University of Colorado, Aurora, CO.
 22. Mar 2009 – Sep 2010. **Work-Study Research Advisor**. Carly Nagel, DPT student. Project Title: *Exercise-induced hypoalgesia in patients with fibromyalgia*. Physical Therapy Program, University of Colorado, Aurora, CO.
 23. Oct 2008 – Sep 2010. **Work-Study Research Advisor**. Linell Griffin, DPT student. Project Title: *Sex and age effects on stress-evoked motor unit activity in patients with chronic neck pain*. Physical Therapy Program, University of Colorado, Aurora, CO.
 24. May 2008 – Jan 2011. **Work-Study Research Advisor / Clinical Education III Research Advisor**. Ryan Marker, DPT student. Project Title: *Intracortical pathways contributing to individual differences in trapezius corticospinal excitability*. Physical Therapy Program, University of Colorado, Aurora, CO.
 25. Apr 2008 – Nov 2010. **Junior Faculty Mentor**. Michael Pascoe, PhD student. University of Colorado Denver Aging Training Grant (T32-AG00279, PI: Robert Schwartz). Project Title: *Motor unit recruitment during fatiguing contractions in old adults*. Department of Integrative Physiology, University of Colorado Boulder, Aurora, CO.
 26. Feb 2008 – May 2009. **Work-Study / Clinical Education IV Research Advisor**. Bahar Shahidi, DPT student. Project Title: *Sex and age effects on stress-evoked motor unit activity in patients with chronic neck pain*. Physical Therapy Program, University of Colorado, Aurora, CO.
 27. Sep 2007 – Jan 2009. **Work-Study / Clinical Education III Research Advisor**. Angela Bruflat, DPT student. Project Title: *Case study of stress-management as an adjunct to physical therapy intervention for chronic neck pain*. Physical Therapy Program, University of Colorado, Aurora, CO.
 - a. Class of 2009 Outstanding DPT Student awarded in 2009
 28. Sum 2006. **Undergraduate Summer Research Opportunity Program Advisor**. Ayanna Porter, BS student (McKendree College, IL). Project Title: *Effects of psychosocial stress on neuromuscular activation and fatigue*. Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.
 29. Aug 2005 – Apr 2006. **DPT Student Research Advisor**. Nathan Kauk, Erin Lyles, Erin Noe, Heather Ralston, DPT students. Project Title: *Effects of psychosocial stress on neuromuscular activation and fatigue*. Graduate Program in Physical Therapy & Rehabilitation Science, University of Iowa, Iowa City, IA.
 30. Jul 2003 – Aug 2004. **Undergraduate Student Research Advisor**. Jennifer Stephenson, BS student (Bath University, UK). Project Title: *Task specificity of motor unit behavior*. Department of Integrative Physiology, University of Colorado, Boulder, CO.
 31. Jan 2001 – May 2001. **Independent Study Research Advisor**. Sara Scholtes, MPT student. Project Title: *Validity of a Step Activity Monitor*.

f. Physical Therapy Student Faculty Advisor

1. 2015-18. DPT Class of 2018, San Diego State University: Sarah McCabe, Michelle Medicke, Michaela Mettenleiter, Elana Miller, Sarah Nalbandian
2. 2014-17. DPT Class of 2017, San Diego State University: Erin Menefee, Katie Mitchell, Megan Moffat, Brian Montz, Milan Patel
3. 2013 – 2014. DPT Class of 2016, University of Colorado Denver: Julia Ebert, Megan Kovarik, Christopher Trzcinski
4. 2012 – 2014. DPT Class of 2015, University of Colorado Denver: Stephanie Foster, Madisen Klumpp, Matthew Pomeroy
5. 2011– 2014. DPT Class of 2014, University of Colorado Denver: John Farris, Leshelle Lencioni, Jenna Traeger
6. 2010 – 2013. DPT Class of 2013, University of Colorado Denver: Carrie Eckenhoff, Jennifer Molner, Amanda Watson
7. 2009 – 2012. DPT Class of 2012, University of Colorado Denver: Jill Carson, Jenna Kempf, Sarah Mann
8. 2008 – 2011. DPT Class of 2011, University of Colorado Denver: Ryan Marker, Tasia Robertson
9. 2007 – 2010. DPT Class of 2010, University of Colorado Denver: Lindsey Kramer, Kelly Patton
10. 2006 – 2007. DPT Class of 2007, University of Iowa: Lindsay Burhenn, Abby Hovey, Amy Jiskoot, Elizabeth Naughton, Kimberly Schmutge
11. 2005 – 2006. DPT Class of 2006, University of Iowa: Nathan Kauk, Erin Lyles, Erin Noe, Heather Ralston

d. Continuing Education in Instructional Methods and Administration

I consistently take advantage of opportunities to learn and implement contemporary teaching and administrative methods through active participation continuing education courses

1. Summer 2016. AlterMed Research Foundation Integrative Medicine Conference.
2. Spring 2016. American Physical Therapy Association Spiritual and Health Implications for Physical Therapy Practice.
3. Fall 2015. UCSD Workshop on Practice-Based Research and Pragmatic Studies.
4. Spr 2015. SDSU Center for Teaching and Learning. Facilitating Discussions of Difficult Topics.
5. Spr 2015. SDSU Center for Teaching and Learning. Active Learning Techniques and the Flipped Classroom.
6. Spr 2015. SDSU Center for Teaching and Learning. Getting Started with an Interactive Classroom.
7. Spr 2013. Physical Therapy Program Teaching Methods seminar. Wiki Use for Student Centered Learning
8. Spr 2013. University of Colorado Faculty Development Seminar. How to Teach Clinical Reasoning.
9. Spr 2010. University of Colorado Faculty Development Seminar. How to Design and Teach a Course; Using Learning Objectives in Teaching.
10. Spring 2010. University of Colorado Faculty Development Seminar. Giving

a Talk at a Scientific Meeting.

11. Spr 2009. National Clinical and Translational Research Educational Annual Meeting, Washington DC. Workshops attended: Building Multidisciplinary Team Mentoring, NIH Update for Educators, Strategies for Meeting Clinical and Translational Education Needs Across Health Professions

PROFESSIONAL GROWTH

a. Refereed Journal Articles

* Indicates manuscripts that were written and submitted while supported by my NIH R01 award at San Diego State University

1. Stone A, Nordon-Craft A, Ireland M, **Maluf KS**. Application of vestibular rehabilitation clinical practice guidelines to reduce fall risk after incomplete spinal cord injury: A case report. *Physical Therapy* [Submitted Sep 2016].
2. Domingo AR, Diek M, Goble K, **Maluf KS**, Goble DJ, Baweja HS. Short duration therapeutic massage reduces resting upper trapezius muscle activity. *NeuroReport*. [Submitted Aug 2016].
3. *Marker RJ, Campeau S. **Maluf KS**. Psychosocial stress alters the strength of reticulospinal input to the human trapezius muscle. *Journal of Neurophysiology*. [Invited to revise; resubmitted Sep 2016].
4. *Neu M, Pan Z, Haight A, Fehringer K, Emmett P, Harrington MJ, **Maluf KS**. Hormonal and neuromuscular responses to breast feeding: a pilot study. *Biological Research for Nursing*. [In Press, Sep 2016]
5. * Marker RJ, Balter JE, Nofsinger ML, Anton D, Fethke NB, **Maluf KS**. Upper trapezius muscle activity in healthy office workers: reliability and sensitivity of occupational exposure measures to differences in sex and hand dominance. *Ergonomics*. 2016;28:1-10.
6. * Gaffney BM, **Maluf KS**, Davidson BS. Evaluation of novel EMG biofeedback for postural correction during computer use. *Applied Psychophysiology Biofeedback*. 2016;41(2):181-9.
7. * Shahidi B, Curran-Everett D, **Maluf KS**. Psychosocial, physical, and neurophysiological risk factors for chronic neck pain: a prospective inception cohort study. *Journal of Pain*. 2015;16(12):1288-99. (See FILE [P-2])
8. * Shahidi B, Sannes T, Laudenslager M, **Maluf KS**. Cardiovascular responses to an acute psychosocial stressor are associated with the cortisol awakening response in individuals with chronic neck pain. *Physiology and Behavior*. 2015;150:93-98. (See FILE [P-3])
9. Umeda M, Corbin LW, **Maluf KS**. Pain mediates the association between physical activity and the impact of fibromyalgia on daily function. *Clinical Rheumatology*. 2015;34:143-149.
10. * Umeda M, Corbin LW, **Maluf KS**. Examination of contraction-induced muscle pain as a behavioral correlate of physical activity in women with and without fibromyalgia. *Disability and Rehabilitation*. 2014;20:1-6.
11. Marker RJ, **Maluf KS**. Effects of electrocardiography contamination and comparison of ECG removal methods on upper trapezius electromyography recordings. *Journal of Electromyography & Kinesiology*. 2014;24(6):902-9.
12. Gaffney BM, **Maluf KS**, Davidson BS. Associations between cervical and scapular posture and the spatial distribution of trapezius muscle activity.

- Journal of Electromyography & Kinesiology*. 2014;24(4):542-9.
13. Marker RJ, Stephenson JL, Kluger BM, Curran-Everett D, **Maluf KS**. Modulation of intracortical inhibition in response to acute psychosocial stress is impaired among individuals with chronic neck pain. *Journal of Psychosomatic Research*. 2014;76(3):249-56 (See FILE [P-4])
 14. Kittelson A, George SZ, **Maluf KS**, Stevens-Lapsley JL. Future directions in painful knee osteoarthritis: harnessing complexity in a heterogeneous population. *Physical Therapy*. 2014;94(3):422-32.
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 17. Umeda M, Corbin LW, **Maluf KS**. Preliminary investigation of absent nociceptive flexion reflex responses among more symptomatic women with fibromyalgia syndrome. *Rheumatology International*. 2013;33(9):2365-72.
 18. Shahidi B, Johnson CL, Curran-Everett D, **Maluf KS**. Reliability and group differences in quantitative cervicothoracic measures among individuals with and without chronic neck pain. *BMC Musculoskeletal Disorders*. 2012;13(1):215.
 19. Bruflat AK, Balter JE, McGuire D, Fethke NB, **Maluf KS**. Stress management as an adjunct to physical therapy for chronic neck pain. *Physical Therapy*. 2012;92(10):1348-59.
 20. Stephenson JL, **Maluf KS**. Dependence of the paired motor unit analysis on motor unit discharge characteristics in the human tibialis anterior muscle. *Journal of Neuroscience Methods*, 2011;198(1):84-92.
 21. Stephenson JL, Christou EA, **Maluf KS**. Discharge rate modulation of trapezius motor units differs for voluntary contractions and instructed muscle rest. *Experimental Brain Research*, 2011;208(2):203-215.
 22. Stephenson JL, **Maluf KS**. Discharge behaviors of trapezius motor units during exposure to low and high levels of acute psychosocial stress. *Clinical Neurophysiology*, 27(1):52-61, 2010.
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 24. **Maluf KS**, Barry BK, Riley ZA, Enoka RM. Reflex responsiveness of a human hand muscle when controlling isometric force and joint position. *Clinical Neurophysiology* 2007;118(9):2063-71.
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 28. **Maluf KS** and Enoka RM. Task failure during fatiguing contractions

- performed by humans *Journal of Applied Physiology* 2005; 99:389-396.
29. Keenan KG, Farina D, **Maluf KS**, Merletti R, Enoka RM. The influence of amplitude cancellation on the simulated surface electromyogram. *Journal of Applied Physiology*. 2005; 98:120-131.
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 31. **Maluf KS**, Mueller MJ, Strube MJ, Engsberg JR, Johnson JE. Tendon Achilles lengthening for the treatment of neuropathic ulcers causes a temporary reduction in forefoot pressure associated with changes in plantar flexor power rather than ankle motion during gait. *Journal of Biomechanics*. 2004;37:897-906.
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 38. **Maluf KS**, Sahrman SA, VanDillen LR. Use of a classification system to guide nonsurgical management of a patient with chronic low back pain. *Physical Therapy*. 2000;80:1097-1111. [Reprinted in *Writing Case Reports: A How-To Manual for Clinicians*. McEwen I, ed. Alexandria, VA: American Physical Therapy Association; 2001.]
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- b. Non-refereed Journal Articles / Invited Editorial
1. **Maluf KS**. A lesson from John Hughlings Jackson. *Journal of Orthopedics and Sports Physical Therapy* 2002;32(3):84-85.
- c. Publications in Process
1. Kittelson AJ, George SZ, **Maluf KS**, Schmiede SJ, Schenkman M, Stevens-Lapsley JE. Determination of pain phenotypes in knee osteoarthritis using latent profile analysis. *Osteoarthritis and Cartilage* [Submission planned for

Sep 2016]

2. Brandt Z, Davila-Pablo L, Kane C, Kettenberg P, Malave T, Moffat M, Woods T, **Maluf KS**. Ethnic differences in experimental pain sensitivity and associations with psychological health. [Submission planned for Fall 2016].
3. * Marker RJ, Shahidi B, Balter JE, **Maluf KS**. Elevated cervical muscle activity does not predict the development of chronic neck pain in office workers. [Submission planned for Fall 2016]
4. * Shahidi B, Stephenson JL, **Maluf KS**. Age-related differences in respiratory modulation of trapezius motor unit activity in individuals with neck pain. [Submission planned for Fall 2016].

d. Refereed Scientific Conference Abstract Presentations

Findings from my research have been presented at local, national, and international scientific conferences. Conference research awards are indicated in bold.

1. Brandt Z, Kane C, Malave T, Woods T, Moffat M, Kettenburg P, Davila-Pablo, **Maluf KS**. Ethnic differences in pain-related anxiety and modulation of affective responses to evoked heat and pressure pain. Combined Sections Meeting of the American Physical Therapy Association. San Antonio, TX. Feb 2017 [Abstract accepted].
2. Brandt Z, Kane C, Malave TJ, Moffat M, Woods T, **Maluf KS**. Association between acculturation stress and pain sensitivity in first-generation Hispanic Americans. 16th World Congress on Pain, Yokohama Japan. Sep 2016.
3. Marker RJ, Campeau S, **Maluf KS**. Psychosocial stress alters the strength of reticulospinal input to the human upper trapezius muscle. Neurobiology of Stress Workshop. Newport Beach, CA. Apr 2016.
4. Marker RJ, **Maluf KS**. Associations between workday heart rate variability, trapezius muscle activity, and anxiety in office workers. American College of Sports Medicine. San Diego, CA. May 2015.
5. Shahidi B, Haight A, **Maluf KS**. Physical, psychological, and neurophysiological risk factors for development of neck pain: A prospective cohort study. Combined Sections Meeting of the American Physical Therapy Association. Indianapolis, IN. Feb 2015. [**Marilyn Gossman Graduate Student Research Forum Travel Award**]
6. Marker RJ, Shahidi B, **Maluf KS**. Relationships between autonomic and motor activity in office workers at risk of developing neck pain. Combined Sections Meeting of the American Physical Therapy Association. Indianapolis, IN. Feb 2015.
7. Marker RJ, **Maluf KS**. Relationships between heart rate variability and upper trapezius muscle activity in office workers during whole-day work shifts. Neurobiology of Stress Workshop, Cincinnati, OH. Jun 2014. [**Hirs Travel Award**]
8. Shahidi B, Sannes T, Laudenslager M, **Maluf KS**. Cortisol awakening response predicts cardiovascular response to acute psychosocial stress in individuals with neck pain. Neurobiology of Stress Workshop, Cincinnati, OH. Jun 2014. [**Neurobiology of Stress Travel Award; Hirs Travel Award**]
9. Marker RJ, Balter JE, Nofsinger ML, Anton D, Fethke NB, **Maluf KS**. Characterization of upper trapezius motor patterns from worksite electromyography in healthy office workers. 20th Congress of the International Society of Electromyography and Kinesiology, Rome, Italy. July 2014.

10. Shahidi B, Balter JE, Nofsinger ML, Anton D, **Maluf KS**. Static muscle activity and muscular rest throughout the workday predict development of chronic neck pain in office workers. 20th Congress of the International Society of Electromyography and Kinesiology, Rome, Italy. July 2014.
11. Shahidi B, Haight AE, **Maluf KS**. Motor control during a cervical extensor endurance task in office workers who develop chronic neck pain. 20th Congress of the International Society of Electromyography and Kinesiology, Rome, Italy. July 2014.
12. **Maluf KS** and Shahidi B. Motor responses to simulated workplace stressors do not predict development of chronic neck pain in office workers. 20th Congress of the International Society of Electromyography and Kinesiology, Rome, Italy. July 2014.
13. Shahidi B, Haight AE, **Maluf KS**. Alterations in pain processing before and after development of neck pain. Combined Sections Meeting of the American Physical Therapy Association. Las Vegas, NV. Feb 2014. [**Marilyn Gossman Graduate Student Research Forum Travel Award**]
14. Marker RJ, **Maluf KS**. Effects of visual feedback on voluntary muscle relaxation in the upper trapezius. Combined Sections Meeting of the American Physical Therapy Association. Las Vegas, NV. Feb 2014.
15. Gaffney BM, **Maluf KS**, Davidson BS. Correlation between cervicospinal position and the spatial distribution of trapezius muscle activity. Combined Sections Meeting of the American Physical Therapy Association. Las Vegas, NV. Feb 2014.
16. Shahidi B, Laudenslager M, **Maluf KS**. Associations between chronic stress and pain processing in healthy individuals. Society for Neuroscience. San Diego, CA. Nov 2013.
17. Gaffney BM, **Maluf KS**, Davidson BS. Evaluation of novel biofeedback in changes of activation of the trapezius. American Society of Biomechanics. Omaha, NE. Sep 2013.
18. Gaffney BM, **Maluf KS**, Davidson BS. High-density surface EMG biofeedback from the trapezius for real time postural correction. Proceedings of the American Society of Mechanical Engineering (ASME) Bioengineering Conference. Sunriver, OR. Jun 2013.
19. Shahidi B, Kyle BL, **Maluf KS**. Contribution of scapular strength to cervical co-contraction during the prone neck extensor endurance test. Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. Jan 2013. [**Marilyn Gossman Graduate Student Research Forum Travel Award**]
20. Molner J, Balter JE, Stark R, Knowles SK, Friedley D, Coleman B, Anton D, **Maluf KS**. Associations between trait anxiety, perceived stress, and habitual muscle activity in the workplace. Combined Sections Meeting of the American Physical Therapy Association. San Diego, CA. Jan 2013.
21. Marker RM, Kluger BM, Stephenson JL, **Maluf KS**. Measurement of short-interval intracortical inhibition during low intensity contractions of the upper trapezius muscle. Society for Neuroscience. New Orleans, LA. Oct 2012.
22. Marker RJ, Stephenson JL, **Maluf KS**. Effects of psychosocial stress on intracortical inhibition in healthy adults. 8th International Motoneuron Meeting, Sydney, Australia, Jul 2012; University of Colorado 27th Annual Student Research Forum, Dec 2012. [**Best Poster Award**]
23. Shahidi B, **Maluf KS**. Characterization of tonic and phasic motor unit

- discharge in the trapezius muscle. 8th International Motoneuron Meeting, Sydney, Australia, Jul 2012.
24. Shahidi B, Landa-Posas M, **Maluf KS**. Association between changes in cervical posture and muscle activity during exposure to an acute psychosocial stressor. XIX Congress of the International Society of Electrophysiology and Kinesiology. Brisbane, Australia, Jul 2012
 25. Marker RJ, **Maluf KS**. Validation of a novel method of cardiac artifact removal from trunk muscle electromyography. XIX Congress of the International Society of Electrophysiology and Kinesiology. Brisbane, Australia, Jul 2012. [**Delsys Foundation Travel Award for Oral Platform Invitation**]
 26. Shahidi B, Johnson C, **Maluf KS**. Reliability and discriminant validity of cervicothoracic impairment measures in individuals with and without chronic neck pain. American Physical Therapy Association Combined Sections Meeting, Chicago, IL, Feb 2012. [**APTA Orthopaedics Section Best Poster Nominee**]
 27. Marker RM, Jesunathadas M, **Maluf KS**, Enoka RM. Simulated variability of muscle force is altered by the distribution of mechanical twitch properties across the motor unit pool. Society for Neuroscience Abstracts #590.4. San Diego, CA; Nov 2010.
 28. Umeda M, Nagel CA, Balter JE, Nofsinger ML, Corbin LW, **Maluf KS**. The effects of isometric handgrip exercise on pain perception and nociceptive reflexes in women with and without fibromyalgia. University of Colorado Women's Health Research Symposium, Aurora, CO, Sep 2010 [**Best Poster Award**].
 29. Umeda M, Nagel CA, Balter JE, Nofsinger ML, Corbin LW, **Maluf KS**. The effects of isometric handgrip exercise on pain perception and nociceptive reflexes in women with and without fibromyalgia. 13th World Congress on Pain. Montreal, Canada, Aug 2010.
 30. Stephenson JL, Marker RJ, **Maluf KS**. Effects of acute exposure to a psychosocial stressor on corticospinal excitation and inhibition in individuals with chronic neck pain. 13th World Congress on Pain. Montreal, Canada, Aug 2010. [**International Association for the Study of Pain Travel Award**]
 31. Shahidi B, Stephenson JL, Balter JE, Griffin L, **Maluf KS**. Sex differences in the association between basal HPA activity and responses to acute psychosocial stress in individuals with chronic neck pain. 13th World Congress on Pain. Montreal, Canada, Aug 2010.
 32. Balter JE, Wiseman CE, **Maluf KS**. Changes in regional pain sensitivity across the menstrual cycle in women with chronic neck pain. 13th World Congress on Pain. Montreal, Canada, Aug 2010; University of Colorado Women's Health Research Symposium, Aurora, CO, Sep 2010.
 33. Stephenson JL, **Maluf KS**. Factors influencing the magnitude of persistent inward current estimates in the human tibialis anterior muscle. 7th International Motoneuron Meeting, Paris, France, Jul 2010. [**International Motoneuron Society Travel Award**]
 34. Stephenson JL, Marker RJ, **Maluf KS**. Effects of acute exposure to a psychosocial stressor on corticospinal excitation and inhibition in individuals with chronic neck pain. Transcranial Magnetic Stimulation Summer School, Oxford, England, Jun 2010 [**Best Poster Award**].
 35. **Maluf KS**. A national survey on the demand for PhD prepared faculty among

- physical therapy program directors. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
36. Bruflat AK, Balter JE, McGuire D, **Maluf KS**. Outcomes of stress management as an adjunct to standard physical therapy intervention for chronic work-related neck pain in four female office workers. American Physical Therapy Association Combined Sections Meeting, San Diego, CA, Feb 2010.
 37. Stephenson JL, Christou EA, **Maluf KS**. Spontaneous discharge of trapezius motor units during periods of instructed rest exhibits modulation at respiratory frequencies. Society for Neuroscience Abstracts #179.2, Chicago, IL Oct 2009.
 38. Stephenson JL, **Maluf KS**. Effects of acute psychosocial stress on corticospinal excitation and inhibition. Section on Research Retreat of the American Physical Therapy Association, Monterey, CA, Aug 2009.
 39. Stephenson JL, Christou EA, **Maluf KS**. Acute psychosocial stress does not alter single motor unit discharge behavior during feedback-controlled voluntary contractions or instructed rest in healthy females. Section on Research Retreat of the American Physical Therapy Association, Monterey, CA, Aug 2009.
 40. Johnson CL, Balter JE, Bruflat A, **Maluf KS**. Discriminant validity of a clinical screening tool for occupational myalgia. National Clinical and Translational Research Educational Annual Meeting, Washington DC, Apr 2009.
 41. Johnson CL, Balter JE, Bruflat A, **Maluf KS**. Stress-evoked activation of the upper trapezius muscle differs for women with and without chronic neck pain. American Physical Therapy Association Combined Sections Meeting, Las Vegas, NV, Feb 2009.
 42. Stephenson JL, **Maluf KS**. Effects of psychosocial stress on intrinsic activation of human trapezius motoneurons. Society for Neuroscience Abstracts #75.5, Washington DC, Nov 2008.
 43. Stephenson JL and **Maluf KS**. Discharge rate modulation in human trapezius motoneurons. Mechanisms of Plasticity and Disease in Motoneurons Meeting, Seattle, WA, Jun 2008.
 44. Hammerich AS and **Maluf KS**. Effects of biofeedback on stress-evoked activation of the upper trapezius muscle in subjects with chronic neck pain. American Physical Therapy Association Combined Sections Meeting, Nashville, TN, Feb 2008.
 45. Kauk ND, Lyles EM, Noe EE, Porter A, Ralston HM, Thippareddy G, **Maluf KS**. Effects of psychosocial stress on cervicospinal muscle activity in healthy females. American Physical Therapy Association Combined Sections Meeting, Boston, MA, Feb 2007.
 46. **Maluf KS**, Riley ZA, Anderson MK, Barry BK, Aidoo SS, Enoka RM. Heteronymous reflexes in the primary agonist are enhanced when supporting an inertial load. *Journal of Neurologic Physical Therapy* 29(4): Dec 2005.
 47. **Maluf KS**, Hunter SK, Mottram CJ, Rudroff T, Enoka RM. Mechanisms of task failure during fatiguing contractions in healthy humans. Workshop on Investigation of Human Muscle Function In Vivo. Nashville, TN. Oct 2005.
 48. Mottram CJ, **Maluf KS**, Anderson MK, Stephenson JL, Enoka RM. Vibration of the biceps brachii tendon reduces time to failure when maintaining limb position during a fatiguing contraction. *Journal of Neurologic Physical Therapy* 29(4): Dec 2005.

49. **Maluf KS**, Riley ZA, Anderson MK, Barry BK, Aidoor SS, Enoka RM. Effects of load type on electrically and mechanically evoked reflexes in a human hand muscle. Society for Neuroscience Abstracts #515.16, Washington DC, Nov 2005.
50. Mottram CJ, **Maluf KS**, Stephenson JL, Anderson MK, Enoka RM. Sub-threshold vibration of the biceps brachii tendon does not influence the time to task failure for a submaximal fatiguing contraction. Society for Neuroscience Abstracts #188.7, San Diego, CA, Oct 2004.
51. **Maluf KS**, Shinohara M, Stephenson JL, Enoka RM. Position-control is associated with enhanced muscle activation and a briefer time to task failure compared with force-control during low intensity contractions of an intrinsic hand muscle. Society for Neuroscience, San Diego, CA Oct 2004.
52. Enoka RM, Hunter SK, **Maluf KS**, Rudroff T. Task requirements and the mechanisms that limit task failure during submaximal fatiguing contractions. *Proceedings of the Xth International Symposium on Motor Control*. Sofia, Bulgaria, Sep 2004.
53. Stephenson JL, **Maluf KS**, Tracy BL, Hunter SK, Enoka RM. Fluctuations in isometric force are associated with motor unit discharge rate variability in older adults. American College of Sports Medicine Annual Meeting, Indianapolis, IN, Jun 2004. *Medicine and Science in Sports and Exercise*. 36:S123.
54. Lott DJ, Bohnert KL, Klaesner JW, **Maluf KS**, Mueller MJ, Sinacore DR. Amount and intensity of activity during off-loading treatment and the healing of neuropathic plantar ulcers. American Physical Therapy Association Combined Sections Meeting, Nashville, TN, Feb 2004.
55. Keenan KG, Farina D, **Maluf KS**, Merletti R, Enoka RM. Age-associated changes in motor unit properties reduce signal cancellation in the simulated electromyogram. Society for Neuroscience Annual Meeting, New Orleans, LA, Nov 2003.
56. VanDillen LR, Sahrman SA, **Maluf KS**. Directions of alignment and movement strategies associated with symptom reproduction in patients with low back pain. American Physical Therapy Association Combined Sections Meeting, Tampa, FL, Feb 2003.
57. VanDillen LR, Sahrman SA, **Maluf KS**. Modifying patient-preferred movement and alignment strategies during symptom testing: a follow-up report. American Physical Therapy Association Combined Sections Meeting, Tampa, FL, Feb 2003.
58. Mueller MJ, **Maluf KS**, Sinacore DR, Hastings MK, Strube MJ, Engsberg JR, Johnson JE. Effect of tendo Achilles lengthening on forefoot plantar pressures, ankle motion, and plantar flexor power during walking in subjects with diabetes and peripheral neuropathy: a prospective controlled clinical trial. VIII EMED Scientific Meeting, Kananaskis, Canada, Aug 2002.
59. **Maluf KS**, Mueller MJ. Comparison of physical activity and cumulative plantar tissue stress among subjects with and without diabetes mellitus and a history of recurrent plantar ulcers. VIII EMED Scientific Meeting, Kananaskis, Canada, Aug 2002.
60. **Maluf KS**, Morley RE, Richter EJ, Klaesner JW, Mueller MJ. Development and validation of a portable device for in-shoe multisensory data acquisition. Washington University Biomedical Engineering Workshop. St. Louis, MO, Mar 2002.

61. **Maluf KS**, Mueller MJ, Hastings MK, Henry JD, Johnson JE. Effect of tendon Achilles lengthening on ambulatory plantar loads in patients with diabetes mellitus. American Physical Therapy Association Combined Sections Meeting, Boston, MA, Feb 2002. *Journal of Orthopedics and Sports Physical Therapy*. 2002;32:A33-34.
62. **Maluf KS**, Mueller MJ, Hastings MK, Henry JD, Johnson JE. Effect of tendon Achilles lengthening on gait characteristics in patients with diabetes mellitus. American Physical Therapy Association Combined Sections Meeting, San Antonio, TX, Feb 2001. *Journal of Orthopedics and Sports Physical Therapy*. 2001;31:A3-4.
63. **Maluf KS**, Richter EJ, Morley RE, Pickard WF, Klaesner JW, Mueller MJ. Validity of measurements obtained from an electronic monitoring system in diabetic footwear. American Physical Therapy Association Combined Sections Meeting, New Orleans, LA, Feb 2000. *Journal of Orthopedics and Sports Physical Therapy*. 2000;30:A12.
64. **Maluf KS**, VanDillen LR. Classification and use of a functional approach in the treatment of a patient with chronic low back pain. American Physical Therapy Association Combined Sections Meeting, New Orleans, LA, Feb 2000. *Journal of Orthopedics and Sports Physical Therapy*. 2000;30:A12.
65. Richter EJ, Morley RE, Pickard WF, **Maluf KS**, Klaesner JW, Mueller MJ. In-shoe multisensory data acquisition. BMES & EMBS Joint Conference, Atlanta, GA, Oct 1999. Proceedings 6.3.1-2.
66. Turkin VV, **Monroe KS**, Hamm TM. Organization of recurrent inhibition and facilitation in motor nuclei innervating ankle muscles of the cat. Undergraduate Biology Research Program Conference, Tucson, AZ, Jan 1996.

e. Scholarly Awards

1. 2012 Washington University in St. Louis, Program in Physical Therapy Distinguished Alumni Award
2. 2002 NOVEL Award for outstanding research. EMED Scientific Meeting, Kananaskis, Canada.

f. Research Grants

My research program has a strong record of support from intra- and extramural funding agencies, extending from my first faculty appointment as an Assistant Professor in 2007 to my current position at SDSU.

1. Aug 2016 (Submitted). **Special Operations Command – Extramural Biomedical Research and Development Award**. Project Role: Principal Investigator. Title: *Development of a sleep resilience education program for Special Operations Forces* (\$468,360 Pending Review)
2. Aug 2016 (Submitted). **Department of Defense Psychological Health/Traumatic Brain Injury Research Program – Complex Traumatic Brain Injury Rehabilitation Research Award**. Project Role: Sub-award Principal Investigator. *Efficacy of cognitive-behavioral vs. physical intervention for post-traumatic headache in veterans* (\$5M Pending Review)
3. Jul 2010 – Sep 2015. **National Institutes of Health (NIAMS) R01 Research Project Grant (R01-AR056704)** Project Role: Principle Investigator; Title: *Stress-evoked muscle activity in occupational myalgia* (\$1.24M Awarded. Revised competitive renewal (A1) application submitted Nov 5, 2016).

4. Aug 2015 – Jul 2016. **SDSU President's Leadership Fund.** Project Role: Principal Investigator. Title: *Association between psychological health and affective responses to pain* (\$12,000 Awarded)
5. Apr 2014 – Aug 2014. **National Institutes of Health R21 Exploratory Grant (R21-AG044710).** Project Role: Co-Investigator; Principle Investigator: Stevens-Lapsley; Title: *Determination of pain phenotypes in older adults with knee osteoarthritis* (\$275,000 Awarded)
6. Dec 2012 – Nov 2013. **UC College of Nursing ORS Small Research Grant.** Project Role: Co-Investigator; Principle Investigator: Neu; Title: *Feasibility study to assess maternal-infant emotional availability and infant stress during feeding.* (\$10,000 Awarded).
7. Aug 2008 – July 2011. **University of Colorado School of Medicine Academic Enrichment Fund, New Strategic Research Initiative** Project Role: Co-Investigator, PI: Margaret Schenkman, PT, Ph.D.; Title: *Development of an Interdisciplinary Movement Science Laboratory* (\$149,000 Awarded)
8. May 2007 – Apr 2010. **National Institutes of Health (NIAMS) R21 Exploratory Grant (R21-AR054181)** Project Role: Principle Investigator; Title: *Effects of psychosocial stress on intrinsic activation of human motor neurons* (\$236,500 Awarded)
9. Jan 2007 – Dec 2007. **Foundation for Physical Therapy Magistro Research Grant** Project Role: Principle Investigator; Title: *Evaluation of a novel biofeedback approach in patients with work-related neck pain* (\$40,000 Awarded)

g. Training Grants

The early phase of my research career was supported by multiple extramural training grants. Once established as an independent investigator, pre-and post-doctoral trainees in my laboratory also demonstrated a strong record of extramural support under my mentorship. This successful training record has continued as a faculty mentor for student research at SDSU.

1. May 2016 – Aug 2016. **San Diego State University Summer Undergraduate Research Program.** Project Role: Faculty Mentor; Undergraduate trainee: Luisa Davila-Pablo; Title: *Quantitative sensory testing in the transition to chronic neck pain and disability* (\$3,000).
2. Jan 2016 – Dec 2016. **San Diego State University Division of Undergraduate Studies Mini-Grant for Undergraduate Research.** Project Role: Faculty Mentor; Undergraduate trainee: Jaime Zinn; Title: *Physical activity in the transition to chronic neck pain* (\$1,000).
3. Sep 2014 – Aug 2015. **Foundation for Physical Therapy Promotion of Doctoral Studies Level II.** Project Role: Faculty Mentor; Pre-doctoral trainee: Ryan Marker; Title: *Pre-doctoral training grant* (\$15,000).
4. Jul 2013 – Jun 2014. **National Science Foundation GK-12 Graduate Fellowship.** Project Role: Faculty Mentor; Pre-doctoral trainee: Ryan Marker. (\$40,500).
5. Sep 2013 – Aug 2014. **Foundation for Physical Therapy Promotion of Doctoral Studies Level II.** Project Role: Faculty Mentor; Pre-doctoral trainee: Bahar Shahidi; Title: *Pre-doctoral training grant* (\$15,000).
6. Sep 2013 – Aug 2014. **Foundation for Physical Therapy Promotion of Doctoral Studies Level I.** Project Role: Faculty Mentor; Pre-doctoral trainee:

- Ryan Marker; Title: *Pre-doctoral training grant* (\$7,500).
7. Sep 2012 – Aug 2013. **Foundation for Physical Therapy Promotion of Doctoral Studies Level I.** Project Role: Faculty Mentor; Pre-doctoral trainee: Bahar Shahidi; Title: *Pre-doctoral training grant* (\$7,500).
 8. Sep 2011 – Aug 2012. **Foundation for Physical Therapy Kendall Scholarship.** Project Role: Faculty Mentor; Pre-doctoral trainee: Ryan Marker; Title: *Pre-doctoral training grant* (\$5,000).
 9. Sep 2011 – Aug 2012. **Foundation for Physical Therapy Kendall Scholarship.** Project Role: Faculty Mentor; Pre-doctoral trainee: Bahar Shahidi; Title: *Pre-doctoral training grant* (\$5,000).
 10. Oct 2009 – Jan 2011. **Center for Women's Health Research Junior Faculty Research Development Award** Project Role: Junior Faculty Fellow, Principle Investigator: Judith Regensteiner, Ph.D.; Title: *Sex and age effects on stress-evoked motor activity in patients with chronic neck pain* (\$25,000)
 11. Apr 2009 – Mar 2010. **International Association for the Study of Pain, John J. Bonica Trainee Fellowship** Project Role: Faculty Mentor; Post-doctoral trainee: Masataka Umeda, Ph.D.; Title: *Exercise-induced hypoalgesia in patients with chronic pain* (\$37,000)
 12. Oct 2008 – Sep 2011. **National Institutes of Health (NCRR) K12 Institutional Training Grant (TL1-RR025778)** Project Role: Colorado Clinical and Translational Science Institute Junior Faculty Fellow; Principle Investigator: Ronald Sokol, MD; Title: *Mechanisms and treatment of stress-evoked muscle activity* (\$384,390)
 13. Jul 2004 – Jun 2010. **National Institutes of Health Clinical Loan Repayment Grant** Project Role: Principle Investigator; Repayment of professional student loan debt to support clinical research on neuromuscular control of muscle fatigue (\$92,552)
 14. Oct 2004 **National Institutes of Health Kirschstein – NRSA Post-Doctoral Individual Training Grant (F32-NS048650)** Project Role: Post-doctoral trainee; Title: Task dependent mechanisms of neuromuscular fatigue (Award not accepted in lieu of faculty position)
 15. May 2003 – Apr 2005 **National Institutes of Health Kirschstein – NRSA Post-Doctoral Institutional Training Grant (T32-AG00279)** Project Role: Post-doctoral trainee; Principle Investigator: Robert Schwartz, MD.
 16. Sep 2001 – Aug 2002 **Foundation for Physical Therapy Promotion of Doctoral Studies II** Project Role: Pre-doctoral trainee; PODS II grant to support dissertation research (\$15,000)
 17. Sep 2000 – Aug 2001 **Foundation for Physical Therapy Promotion of Doctoral Studies I** Role: Pre-doctoral trainee; PODS I grant to support pre-candidacy phase of graduate studies (\$7,500)
 18. Aug 2001 – Jul 2002 **National Institutes of Health (NCMRR) Pre-Doctoral Institutional Training Grant (T32-HD07434)** Project Role: Pre-doctoral trainee; Principle Investigator: Shirley Sahrman.
 19. Sep 1999 – Aug 2000 **National Institutes of Health (NICHD) Pre-Doctoral Institutional Training Grant (T32-HD07434)** Project Role: Pre-doctoral trainee; Principle Investigator: Shirley Sahrman.

- h. Invited Extramural Lectures, Symposiums, and Continuing Education Courses
I have accepted invitations from numerous universities and professional organizations, including the American Physical Therapy Association, to present my research both nationally and internationally.
1. Nov 2015. *Neurophysiologic Investigations of Stress-Related Chronic Pain*. Invited Speaker, Orthopaedic Surgery Research Conference. University of California San Diego, San Diego, CA.
 2. Jul 2015. *Piecing Together the Pain Puzzle: the Biopsychosocial Model*. Invited Speaker and Discussion Panel Member. American Physical Therapy Association Section on Research Retreat, Smithfield, RI.
 3. Feb 2015. *Transitioning from Acute to Chronic Pain: Predictors and Prevention*. Combined Sections Meeting of the American Physical Therapy Association, Invited Educational Workshop, Indianapolis, IN.
 4. Nov 2014. *Stress Related Pain Conditions*. Colorado Physical Therapy Association, Invited full-day Continuing Education Course for Physical Therapists. Parker, CO.
 5. July 2014. *Motor Responses to Simulated Workplace Stressors do not Predict Development of Chronic Neck Pain in Office Workers*. 20th Congress of the International Society of Electromyography and Kinesiology, Rome, Italy.
 6. May 2014. *Exercise is Medicine: Translating Science to Practice*. 33rd Annual Meeting of the American Pain Society Invited Educational Symposium, Orlando, FL.
 7. Dec 2013. *Prospective Evaluation of Stress Related Risk Factors for Chronic Neck Pain*. Department of Physical Therapy and Rehabilitation Science Seminar, University of Iowa.
 8. Oct 2013. *Update on Mechanisms and Management of Stress-related Chronic Pain for Physical Therapists*. Invited Keynote Speaker, New York Physical Therapy Association Continuing Education Course, Albany, NY.
 9. Jul 2012. *Respiratory Modulation of Trapezius Motor Units in Young and Old Adults with Chronic Neck Pain*. 8th International Motoneuron Meeting, Sydney, Australia.
 10. Jul 2010. *Motor Responses to an Acute Psychosocial Stressor in Patients with Chronic Neck Pain*. 7th International Motor Neuron Meeting, Paris, France.
 11. Apr 2010. *Mechanisms and Clinical Implications of Psychomotor Responses to Stress in Chronic Neck Pain*. Department of Health and Exercise Science. Colorado State University. Fort Collins, CO.
 12. Aug 2009. *Mechanisms Underlying Disordered Movement: Impairments with Force Generation*. Moderator, American Physical Therapy Section on Research Retreat. Monterey, CA
 13. Jun 2008. *Mechanisms of Stress-Evoked Motor Unit Activity in the Human Trapezius Muscle*. Mechanisms of Plasticity and Disease in Motor Neurons Conference. Seattle, WA.
 14. Feb 2008. *Stress-Evoked Changes in Neuromuscular Activation: Basic Mechanisms and Implications for Chronic Neck Pain*. Department of Integrative Physiology Colloquium. University of Colorado, Boulder, CO.
 15. Oct 2005. *Mechanisms of Task Failure during Fatiguing Contractions in Healthy Humans*. NIH Workshop on Investigation of Human Muscle Function In Vivo. Nashville, TN.
 16. May 2004. *Identifying Mechanisms of Neuromuscular Fatigue: Does the Task*

Matter? Interdisciplinary Program in Movement Science, Washington University, St. Louis, MO.

17. Feb 2004. *Preventing the Recurrence of Foot Ulcers in Patients with Diabetes: Experimental Application of the Physical Stress Theory*. University of Colorado Health Sciences Center, Denver, CO.
18. Jun 2003. *Biological Adaptation to Changes in the Mechanical Environment: Application to Physical Therapy Practice*. Invited Educational Symposium. Annual Conference of the American Physical Therapy Association, Washington DC.
19. Feb 2001. *Meet the Authors* forum of selected journal authors. American Physical Therapy Association Section on Research, Combined Sections Meeting, San Antonio, TX.

i. Participation in Professional Associations

I have maintained ongoing and active membership in national and international professional associations

1. 2014 – present American Pain Society
2. 2012 – 2015 International Society of Electrophysiology & Kinesiology
3. 2009 – 2015 Society for Clinical and Translational Science
4. 2008 – present International Association for the Study of Pain,
Pain and Movement Special Interest Group
5. 2003 – present Society for Neuroscience
6. 1997 – present American Physical Therapy Association,
Section on Research

VI. SERVICE FOR THE UNIVERSITY, THE PROFESSION, AND THE COMMUNITY

Throughout my career, I have maintained active participation in service activities for the university, profession, and community.

1. Service for the University

a. Program Committees

1. 2014 – present. Physical Therapy Program Curriculum Committee, San Diego State University
2. 2012 – 2014. Clinical Reasoning Task Force Chair, Physical Therapy Program, University of Colorado Anschutz Medical Campus
3. 2009 – 2014. Program Advisory Committee, Physical Therapy Program, University of Colorado Denver
4. 2008 – 2014. Interdisciplinary Movement Science Laboratory Operations Committee, University of Denver
5. 2008 – 2014. Student Affairs Committee, Physical Therapy Program, University of Colorado Denver
6. 2007 – 2014. Program Advisory Committee Chair, Rehabilitation Science PhD Program, University of Colorado Denver
7. 2010 – 2011. Medicine Faculty Search Committee, Physical Therapy Program, University of Colorado Denver
8. 2008. Pediatric Faculty Search Committee, Physical Therapy Program, University of Colorado Denver
9. 2005 – 2006. Data & Safety Monitoring Board, Physical Therapy and Rehabilitation Science Program, University of Iowa

- b. School/Department Committees
 - 1. 2015 – 2016. School of Exercise and Nutritional Sciences Director Search Committee, San Diego State University
 - 2. 2015 – 2016. School of Exercise and Nutritional Sciences Director's Advisory Group, San Diego State University
 - 3. 2012 – 2014. Departmental Advisory Committee for Academic Promotion and Tenure, Department of Physical Medicine & Rehabilitation, University of Colorado School of Medicine
- c. College and University Committees
 - 1. 2014 – present. Intercollegiate Athletic Council with service on Scholarship Appeals Committees, San Diego State University
 - 2. 2016 – 2019. University Senate, College of Health and Human Services Representative, San Diego State University
 - 3. 2009 – 2013. Data Safety and Monitoring Board, Independent Protocol Monitor, University of Colorado Denver

2. Service for the Profession

- a. Invited Membership on Research Grant Review Panels
 - 1. 2015. Longer Life Foundation, Washington University in St. Louis
 - 2. 2013 – 2016. Foundation for Physical Therapy Scientific Review Panel Three review cycles per year for independent research foundation of the American Physical Therapy Association
 - 3. 2012 – 2013. National Institutes of Health Center for Scientific Review, Musculoskeletal Rehabilitation Sciences Study Section ad hoc member
 - 4. 2011. National Institutes of Health Center for Scientific Review, NCCAM ZAT1 HS-04 Mind/Body and Manual Therapy Translational Tools Study Section ad hoc member
 - 5. 2011. Research Growth Initiative Scientific Review Panel, University of Wisconsin Madison
 - 6. 2010. Colorado Clinical and Translational Science Institute, KL2 Scientific Review Panel
- b. Invited External Reviewer for Tenure and Promotion
 - 1. June 2015. Sangeetha Manhavan, PT, Ph.D. Reviewed credentials for promotion to Associate Professor with tenure. Department of Physical Therapy, University of Illinois at Chicago.
 - 2. June 2011. Marie Hoeger Bement, PT, Ph.D. Reviewed credentials for promotion to Associate Professor with tenure. Doctor of Physical Therapy Program. Marquette University.
- c. Invited Editorial Board Membership
 - 1. 2016 – present. Editorial Board Member for the Physical Therapy Journal, official journal of the American Physical Therapy Association (ranked 5th among 65 rehabilitation journals internationally)
- d. Manuscript Reviewer (2 reviews per month on average)
 - 1. 2016 – present BMC Musculoskeletal Disorders
 - 2. 2015 – present Clinical Journal of Pain

3. 2015 – present Physiology and Behavior
4. 2015 – present Motor Control
5. 2015 – present Gait and Posture
6. 2014 – present Frontiers in Neuroscience
7. 2013 – present Clinical Neurophysiology
8. 2013 – present Journal of Orthopedic and Sports Physical Therapy
9. 2012 – present Experimental Physiology
10. 2012 – present Journal of Clinical Neurophysiology
11. 2011 – present Journal of Hand Therapy
12. 2011 – present International Journal of Psychophysiology
13. 2011 – present Journal of Pain
14. 2010 – present Journal of Physiology
15. 2010 – present Archives of Physical Medicine & Rehabilitation
16. 2010 – present Journal of Applied Biomechanics
17. 2009 – present Medicine and Science in Sports and Exercise
18. 2008 – present Journal of Neurophysiology
19. 2003 – present Exercise and Sport Sciences Reviews
20. 2003 – present Journal of Applied Physiology
21. 2000 – present Physical Therapy

3. Service for the Community

a. Invited Clinical and Community Education Lectures

1. Nov 2012. *Know your Body: Managing the Physical Consequences of Psychological Stress*. Let's Talk: Conversations about Women's Health. University of Colorado Hospital and the Center for Women's Health Research Community Outreach Symposium.
2. Mar 2012. *Yoga for Chronic Headache in Adolescents: A Team Approach*. Developmental Psychobiology Research Group Seminar. University of Colorado School of Medicine, Aurora, CO.
3. Fall 2012. Neurophysiology Instruction and Research Demonstration, Vista Academy High School, Erie, CO.
4. Spr 2011. *Searching for Evidence to Improve Clinical Practice*. University of Colorado Denver Alumni Association Clinical Instructor Continuing Education Course, University of Colorado Denver, Aurora, CO.
5. Oct 2010. *Motor Responses to Psychosocial Stress in Chronic Neck Pain*. University of Colorado Physical Therapy Student Association Seminar. University of Colorado Denver, Aurora, CO.
6. Jun 2008. *Effects of Myofeedback on Stress-Evoked Muscle Activity in Patients with Chronic Neck Pain*. Department of Physical Medicine & Rehabilitation Gersten Research Seminar. University of Colorado Denver, Aurora, CO.
7. Apr 2008. *Evaluation of a Novel Biofeedback Approach for Chronic Neck Pain*. University of Colorado Physical Therapy Program Alumni Association Seminar. University of Colorado Denver, Aurora, CO.
8. Aug 2002. *Physical Stress Theory: A model of tissue adaptation to physical stress*. Jefferson Barracks Veteran's Administration Hospital, Rehabilitation Department in-service, St. Louis, MO

- b. Community Volunteer
 - 1. 2009 – 2012. Senior Research Project Panelist, Denver High School of Science and Technology
 - 2. 2007. Nine News Health Fair, Denver, CO