

CURRICULUM VITAE
Susan Sigward, PhD, PT, ATC

PERSONAL INFORMATION

Full name Susan Marie Sigward
Office Address University of Southern California
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Los Angeles, CA 90089-9006
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EDUCATION AND TRAINING

Postgraduate

Department of Orthopaedic Surgery, University of California
Los Angeles, CA
Postdoctoral Fellow, Biomechanics, 2004-2005

Graduate

Department of Biokinesiology and Physical Therapy
University of Southern California
Los Angeles, CA,
Ph.D., Biokinesiology, 2004

Department of Anatomy
Wright State University
Dayton, Ohio
M.S., Anatomy, 1999

Undergraduate

Department of Physical Therapy
Saint Louis University
Saint Louis, MO
B.S., Physical Therapy, 1990

CERTIFICATIONS/SPECIALTIES:

Licensed Physical Therapist, California: PT 25563
National Athletic Trainers Association Certified Athletic Trainer: #119602555
American Red Cross, CPR AED for the Professional Rescuer

PROFESSIONAL EXPERIENCE

Primary positions

2017-present Associate Professor of Clinical Physical Therapy, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2017-present Director, MS Sports Science Emphasis, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles, CA
2009-present Director, Human Performance Laboratory in the Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA

2009-2016	Assistant Professor of Clinical Physical Therapy, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2005-2009	Assistant Professor of Research Physical Therapy, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2004-2005	Post-doctoral Fellow, Department of Orthopaedic Surgery, University of California, Los Angeles
2002-2004	Research Assistant, Department of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
1999-2002	Teaching Assistant, Gross Anatomy and Analytical Anatomy, Department of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
1996-2000	Adjunct Faculty in Orthopedics and Gross Anatomy, Andrews University School of Physical Therapy, Dayton, OH.
1995-1999	Staff Physical Therapist and Athletic Trainer, Miami Valley Hospital, Dayton, OH
1992-1995	Staff Physical Therapist and Athletic Trainer, Queen City Sports Medicine, Cincinnati, OH
1991-1992	Staff Physical Therapist, Westside Physical Therapy, Cincinnati, OH
1990-1991	Staff Physical Therapist, Bethesda Hospital, Cincinnati, OH

Additional Teaching Experience

2004-present	Co-Director, Human Musculoskeletal Anatomy, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2015-2017	Director, Disorders of the Musculoskeletal System, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2003-present	Lecturer, Human Anatomy, Department of Family Medicine Keck School of Medicine, Physician Assistant Program, University of Southern California, Los Angeles CA
2003-present	Lecturer, Human Anatomy, Department of Family Medicine Keck School of Medicine, Department of Anesthesiology, University of Southern California, Los Angeles CA
2009-2011	Co-Director, Disorders of the Musculoskeletal System, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2008-2011	Director, Therapeutic Exercise II, Division of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2005-2007	Lecturer, Pathophysiology of Cardiopulmonary Disease, Department of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
2005-2007	Lecturer, Differential Diagnosis in Physical Therapy, Department of Biokinesiology and Physical Therapy, University of Southern California, Los Angeles CA
1999-2006	Adjunct Instructor, Head and Neck Anatomy, School of Dentistry, University of Southern California, Los Angeles CA
2005	Continuing Education Course Instructor, “Cadaveric Anatomy of the Upper Extremity”, University of Southern California, Los Angeles, CA
2002	Continuing Education Course Co-Instructor, “Lower Quarter Anatomy and Biomechanics”, Samuel Merritt College, Oakland, CA
2002	Continuing Education Course Co-Instructor, “Lower Quarter Anatomy and Biomechanics”, University of Southern California, Los Angeles, CA

- 2001 Lecturer, “Advanced Biomechanics of the Knee” Department of Physical Therapy, Northern Arizona University, Flagstaff, AZ
- 2000 Continuing Education Course Co-Instructor, “Observational Gait Analysis and Pathological Gait Mechanisms”, University of Southern California, Los Angeles, CA

AWARDS & HONORS

- 2018 Outstanding Teacher Award, University of Southern California, Division of Biokinesiology and Physical Therapy, Los Angeles, CA
- 2017 Commendation for Excellence in Teaching, University of Southern California, Division of Biokinesiology and Physical Therapy, Los Angeles, CA
- 2016 Mentoring Award-Faculty Mentoring Graduate Students, University of Southern California, Los Angeles, CA
- 2013 California Physical Therapy Association’s 2013 Publication Award for “The influence of Sex and Maturation on Knee Mechanics During Side-step Cutting. *Medicine & Science in Sports & Exercise*. 44(8):1497-503, 2012.”
- 2013 Commendation for Excellence in Teaching, University of Southern California, Division of Biokinesiology and Physical Therapy, Los Angeles, CA
- 2006 California Physical Therapy Association’s 2006 Publication Award for “The Influence of Gender on Knee Kinematics, Kinetics and Muscle Activation Patterns During Side-step Cutting. *Clinical Biomechanics*, 21:41-48, 2006”
- 2003 Excellence in Teaching Award Nominee, University of Southern California, Los Angeles, CA
- 2003 Outstanding Mentorship Award, University of Southern California, Department of Biokinesiology and Physical Therapy, Los Angeles, CA
- 2002 IV World Congress Biomechanics, Calgary Award Finalist, Category: Muscle & Musculoskeletal category
- 2001 Promotion of Doctoral Studies Scholarship, Foundation for Physical Therapy
- 1999 Galen Award, Award granted for Highest GPA in Masters of Anatomy Program, Wright State University, Dayton, OH
- 1990 *Magna Cum Laude*, Award granted with Bachelor of Science, Saint Louis University, Saint Louis, MO

GRANT SUPPORT

- 2011 – 2016 Scholar, NIH, National Center for Medical Rehabilitation Research (NICHD), National Institutes of Health Rehabilitation Research Career Development Program, K12-HD055929 (Ottenbacher, PI)
- 2014-2016 PI, Boston Rehabilitation Outcomes Measurement Pilot Project (NIH R24 HD05688). “*Tools to quantify gait behaviors in individuals recovering from anterior cruciate ligament reconstruction*”. Award amount \$30,000
- 2014-2015 PI, SC CTSI (NIH/NCATS; UL1TR000130), “*Effects of Gait Training on Knee Loading Following Anterior Cruciate Ligament Reconstruction*”. Award amount \$27,525
- 2014-2015 PI, California Physical Therapy Fund, “*Does Early Gait Training Improve Lower Extremity Sagittal Plane Loading Following Anterior Cruciate Ligament Reconstruction?*”. Award amount \$9,095

2012-2013	PI, Zumberge Fund Individual Grant, “ <i>The Development of Postural Strategies in Children</i> ”. Award amount: \$27,000
2008 – 2010	Recipient, NIH Clinical Loan Repayment Program for Clinical Researchers
2006 – 2008	Recipient, NIH Clinical Loan Repayment Program for Clinical Researchers
2005 – 2009	Project Manager (70% effort), “ <i>Mechanics of non-contact ACL injuries in female athletes</i> ”, NIH, R01 AR053073-01A1 Powers (PI)
2002 – 2003	Project Manager (50% effort), “ <i>Biomechanical and Neuromuscular aspects of non-contact ACL injuries: The influence of gender, experience and training</i> ”, National Athletic Trainer’s Foundation Grant (Powers, PI)
2000-2001	Promotion of Doctoral Studies (PODS) scholarship from American Physical Therapy Association

PUBLICATIONS

Publications in Refereed Journals

1. Lin PE, **Sigward SM**. Influence of hamstrings on knee moments during loading response of gait in individuals following ACL reconstruction. *Journal of Orthopaedic Research*, 38(2) 378-386, 2020
2. Chan M-S, **Sigward SM**. Loading Behaviors Do Not Match Abilities Post Anterior Cruciate Ligament Reconstruction. *Medicine & Science in Sports & Exercise*, 51(8)1626-1634, 2019
3. Lin PE, **Sigward SM**. Subtle Alterations in Whole Body Mechanics During Gait Following Anterior Cruciate Ligament Reconstruction. *Gait & Posture*, 68:494-499, 2019
4. Allah Neamat N, **Sigward SM**, Mohamed GA, Elhafez SM, Emran IM. Effect of Repeated Application of Rigid Tape on Pain and Mobility Deficits Associated with Sacroiliac Joint Dysfunction. *Journal of Back and Musculoskeletal Rehabilitation*, 32(3) 487-496, 2019
5. Pratt KA, **Sigward SM**. Inertial Sensor Angular Velocities Reflect Dynamic Knee Loading during Single Limb Loading in Individuals following Anterior Cruciate Ligament Reconstruction. *Sensors*, 18 (10), 3460, 2018.
6. Lin PE, **Sigward SM**. Contributors to Knee Loading Deficits During Gait in Individuals Following Anterior Cruciate Ligament Reconstruction. *Gait & Posture*, 66:83-87, 2018
7. Havens K, Ebner S, Prat KM, **Sigward SM**. Accelerations from Wearable Accelerometers Reflect Knee Loading During Running after Anterior Cruciate Ligament Reconstruction, *Clinical Biomechanics*, 58:57-61, 2018
8. Pratt KA, **Sigward SM**. Detection of Knee Power Deficits Following ACL Reconstruction Using Wearable Sensors, *Journal of Orthopedic and Sports Physical Therapy*, 48(11), 895-902, 2018
9. **Sigward SM**, Chan MS, Lin P, Almonsouri SY, Pratt KA. Compensatory Strategies that Reduce Knee Extensor Demands During a Bilateral Squat Change from 3 to 5 Months Following Anterior Cruciate Ligament Reconstruction. *Journal of Orthopedic and Sports Physical Therapy*, 48(9), 2018

10. Padua D, DiStefano L, Hewett T, Garrett W, Marshall S, Gilchrist J, Golden G, Shultz S, and **Sigward S**. National Athletic Trainers' Association Position Statement: Prevention of Anterior Cruciate Ligament (ACL) Injury. *Journal of Athletic Training*, 53(1):5-19, 2018
11. Hashish R, Samarawickrame S, **Sigward S**, Azen S, Salem G. Lower-Limb Dynamics and Clinical Outcomes for Habitually Shod Runners who Transition to Barefoot Running. *Physical Therapy in Sport*, 29: 93-100, 2018
12. Cesar GM, Lewthwaite R, Sigward SM. Effect of Practice on the Control of Whole-Body Momentum in Active Children and Adults. *Journal of Motor Learning and Development*. 6 (1) 185-196: 2018
13. Pollard CD, **Sigward SM**, Powers CM. ACL Injury Prevention Training Results in Modification of Hip and Knee Mechanics During a Drop-landing Task. *Orthopaedic Journal of Sports Medicine*, 5:2325967117726267: 7/9/2017
14. Pratt KA and **Sigward SM**. Knee Loading Deficits during Dynamic Tasks in Individuals following ACL Surgery. *Journal of Orthopedic and Sports Physical Therapy*. 47 (6):411-419, 2017
15. **Sigward SM**, Chan M-S and Lin PE. Characterizing Knee Loading Asymmetry in Individuals Following Anterior Cruciate Ligament Reconstruction Using Inertial Sensors. *Gait & Posture*, 49: 114-119, 2016
16. Cesar GM and **Sigward SM**. Predictors for Dynamic Stability during Running Gait Termination: A comparison between adults and children. *Human Movement Science*, 48:37-43, 2016
17. **Sigward SM**, Lin PE, Pratt KA. Knee loading asymmetries during gait in early recovery are related to asymmetries in late recovery and during running following ACL reconstruction. *Clinical Biomechanics*, 32:249-54; Feb 2016.
18. Lawrence EL, Cesar GM, Bromfield M, Peterson R, Valero-Cuevas FJ, **Sigward SM**. Strength, multi-joint coordination, and sensorimotor processing are independent contributors to overall balance ability. *BioMed Research International*, Nov19; 2015
19. Cesar GM, **Sigward SM**. Dynamic stability during running gait termination: Differences in strategies between children and adults to control forward momentum. *Human Movement Science*, 43:138-145, 2015
20. Havens KL and **Sigward SM**. Whole Body Postural Mechanics of Running Turn Maneuvers. *Gait & Posture*, 42(3):240-245, 2015
21. Havens KL and **Sigward SM**. Joint and Segmental Mechanics of Running Turn Maneuvers. *Gait & Posture*, 41(1):33-38, 2015
22. Havens KL and **Sigward SM**. Cutting Mechanics: Relationship to Performance and ACL Injury Risk. *Medicine & Science in Sports & Exercise*, 47(4): 818-824, 2015.
23. **Sigward SM**, Guilherme GM, Havens KL. Predictors of Frontal Plane Moments During Side-step Cutting to 45⁰ and 110⁰ in Men and Women: Implications for ACL Injury. *Clinical Journal of Sports Medicine*, 25(6):529-534, 2015.

24. Roll SC, Rana M, **Sigward SM**, Yani MS, Kirages DJ, Kutch JJ. Reliability of superficial male pelvic floor structural measurements using linear-array transperineal sonography. *Ultrasound in Medicine and Biology*, 41:610-617, 2015
25. Ota S, Ueda M, Aimoto K, Suzuki Y, **Sigward SM**. Influence of restricted ankle dorsiflexion angle on knee joint mechanics during gait. *The Knee*, 21(3): 669-675, 2014
26. Diaz A and **Sigward SM**. Commentary on Performance of Functional Gait and Balance Measures in High School Adolescents. *Pediatric Physical Therapy*, 26(2):200-01, 2014
27. **Sigward SM**, Pollard CD, Havens KL, Powers CM. The influence of Sex and Maturation on Knee Mechanics During Side-step Cutting. *Medicine & Science in Sports & Exercise*, 44(8):1497-503, 2012
28. Song J, **Sigward S**, Fisher B, Salem G. Altered dynamic Postural Control During Step Turning in Persons with Early Stage Parkinson's Disease. *Parkinson's Disease*, vol. 2012, Article ID 386962, 2012. doi:10.1155/2012/386962
29. **Sigward SM**, Pollard CD, Powers CM. The Influence of Sex and Maturation on Landing Biomechanics: Implications for ACL Injury. *Scandinavian Journal of Medicine & Science in Sports*, 22(4):502-9, 2012
30. Lyle MA, **Sigward SM**, Tsai L-C, Pollard CD, Powers CM. The influence of Maturation and Lower Extremity Biomechanics on Peak Foot Velocity in Young Females During a Soccer Kick. *Medicine & Science in Sports & Exercise*, 43(10):1948-1954, 2011.
31. **Sigward SM**, Havens KH, Powers CM. The relation between knee separation distance and lower extremity kinematics during a drop land: Implications for clinical screening. *Journal of Athletic Training*, 46(5): 471-75, 2011
32. Shultz SJ, Schmitz RJ, Nguyen A-D, Chaundhari AM, Padua DA, McLean SG, **Sigward SM**. ACL Research Retreat V: An Update on ACL Injury Risk and Prevention, March 25-27, 2010, Greensboro, NC. *Journal of Athletic Training*, 45(5):499-508, 2010.
33. Pollard CD, **Sigward SM**, Powers CM. Limited Hip and Knee Flexion During Landing is Associated with Increased Frontal Plane Knee Motion and Moments. *Clinical Biomechanics*, 25(3):142-46, 2010.
34. Tsai L-C, **Sigward SM**, Pollard CD, Fletcher MJ, Powers CM. The Effects of Fatigue and Recovery on Knee Mechanics During Side-Step Cutting. *Medicine & Science in Sports & Exercise*, 41(10):1952-1957,2009
35. **Sigward SM**, Ota S, Powers CM. Predictors of Frontal Plane Knee Excursion During a Drop Land in Young Female Athletes. *Journal of Orthopedic and Sports Physical Therapy*, 38(11):661-667, 2008
36. **Sigward SM**, Markolf K, Graves B, Jackson S, McAllister D. Femoral Locations for Isometric Placement of Posterolateral Graft Reconstructions: Where Should Posterolateral Grafts be Fixed on the Femur for Optimum Graft Isometry? *Journal of Bone and Joint Surgery Am*, 89(11):2359-68, 2007.
37. Markolf K, Graves B, **Sigward SM**, Jackson S, McAllister D. Effects of posterolateral reconstructions on external tibial rotation and forces in a posterior cruciate ligament graft. *Journal of Bone and Joint Surgery Am*,89(11):2351-8, 2007.

38. **Sigward SM**, Powers CM. Loading Characteristics of Females Who Exhibit Excessive Valgus Moments During Cutting. *Clinical Biomechanics*, 22(7):827-33, 2007.
39. Markolf K, Graves B, **Sigward SM**, Jackson S, McAllister D. How Well do Reconstructions of the Posterolateral Corner Restore Varus Stability of the PCL Reconstructed Knee? *American Journal of Sports Medicine*, 35(7):1117-22, 2007.
40. Markolf K, Graves B, **Sigward SM**, Jackson S, McAllister D. Popliteus bypass and popliteofibular ligament reconstructions reduce posterior tibial translations and forces in a posterior cruciate ligament graft. *Arthroscopy*, 23(5): 482-7, 2007.
41. Pollard CD, **Sigward SM**, Powers CM. Gender Differences in Hip Joint Kinematics and Kinetics During a Side-step Cutting Maneuver. *Clinical Journal of Sports Medicine*, 17: 38-42, 2007.
42. **Sigward S**, Powers C. The Influence of Gender on Knee Kinematics, Kinetics and Muscle Activation Patterns During Side-step Cutting. *Clinical Biomechanics*, 21(1):41-8, 2006.
43. **Sigward SM**, Powers CM. The Influence of Experience on Knee Mechanics During Side-step Cutting. *Clinical Biomechanics*, 21(7):740-7, 2006.
44. Pollard CD, **Sigward SM**, Ota S, Langford K, Powers CM. The Influence of In-season Injury Prevention Training on Lower Extremity Kinematics During Landing in Female Soccer Players. *Clinical Journal of Sports Medicine*, 16(3):223-7, 2006.
45. Salem G.J., Wang M-Y, and **Sigward S**. Recommendations for Measuring Lower-extremity Strength in Older Adults: The Stability of Isokinetic vs 1RM Measures. *Journal of Aging and Physical Activity*, 10: 480-503, 2002.

Non-Peer Reviewed Manuscripts/ Book Chapters

1. **Sigward SM** (2019) Complexity of Human Joint Design. In Levangie, K, Norkin C, Lewek M (eds). *Joint structure and function: A comprehensive analysis (pp45-79)*. Philadelphia, PA: F.A. Davis Co.
2. **Sigward SM**, Pollard CD (2018) Proximal risk factors for ACL injury: Role of the hip. In Noyes FR, Barber-Westin SD (eds) *ACL Injuries in the Female Athlete: Causes, Impacts, and Conditioning Programs (pp 185-201)*. Springer-Verlag, Berlin Heidelberg.
3. **Sigward SM**, Pollard CD (2012) Proximal risk factors for ACL injury: Role of the hip. In Noyes FR, Barber-Westin SD (eds) *ACL Injuries in the Female Athlete: Causes, Impacts, and Conditioning Programs*. Springer-Verlag, Berlin Heidelberg.
4. **Sigward SM** and Golden GM. (2010) *Preventing Noncontact ACL Injuries*. Champaign, IL: Human Kinetics, Adobe Digital Editions e-book.
5. **Sigward SM**. (2010) Update on Anterior Cruciate Ligament Injuries: Designing an Anterior Cruciate Ligament Injury Prevention Training Program. Educational Monograph, *Orthopaedic Section of the American Physical Therapy Association*.
6. Pollard CD, **Sigward SM**, Shultz SJ. (2010) Update on Anterior Cruciate Ligament Injuries: Risk Factors for Anterior Cruciate Ligament Injury. Educational Monograph, *Orthopaedic Section of the American Physical Therapy Association*.

7. Powers CM, Pollard CD, **Sigward SM. (2007)** Effect of Prevention Programs on Performance. In: Hewett TE, Griffin LY, Mandelbaum BR, Schultz SJ eds. *Understanding and Preventing Non-Contact ACL Injury*. Champaign, IL: Human Kinetics.

Abstracts

1. Almansouri S, Gong C, Chow M, and **Sigward S**. Can Increased Gait Demands Improve Knee Loading During Early and Late Recovery Following ACL Reconstruction? American Physical Therapy Association Combined Sections Meeting. Denver, CO, USA, 2020. Poster presentation.
2. Almansouri S, Barclay W, Dighe A, Gong C, Chow M, and **Sigward S**. Can Increased Gait Speed Improve Knee Loading Mechanics Following Anterior Cruciate Ligament Reconstruction? American College of Sports Medicine Annual Meeting. San Francisco, CA, USA, 2020.
3. Almansouri S, Chan M-S, **Sigward SM**. Center of Pressure and Vertical Ground Reaction Force Predict Knee Extensor Moment Deficits Following Anterior Cruciate Ligament Reconstruction: Implications for Clinical Assessments. *Proceedings of the Combined Sections Meeting, APTA*, Washington DC. 2019-Podium Presentation
4. Schwery N, Allah Neamat N, Almansouri S, **Sigward SM**. Characterization of Sagittal Plane Joints Demands During A Triple Hop Task: Implications for Clinical Interpretation. *Proceedings of the Combined Sections Meeting, APTA*, Washington DC. 2019-Podium Presentation
5. Ciccodicola E, Chan M-S, **Sigward SM**. Can between limb center of pressure position measured with commercial insoles during squatting provide information regarding knee loading deficits following ACLr?: A preliminary investigation. *Proceedings of the Combined Sections Meeting, APTA*, Washington DC. 2019-Poster Presentation
6. Burke E, Jarvis D, Lerch K, **Sigward SM**, Kulig K. Modification of Sagittal Plane Loading During Saut de Chat Landing in Dancers. Performing Arts Medical Association International Symposium, Los Angeles, California. 2019-Podium Presentation
7. Lin PE, Allah Neamat N, Chan C, Bogie GJ, Gately LP, **Sigward SM**. Influence of hamstring activity on knee moments during loading response of gait in individuals following ACL reconstruction. *Osteoarthritis and Cartilage*, Volume 26, S385. *Osteoarthritis Research Society International*, Liverpool, UK 2018-Podium Presentation
8. Lin PE, Allah Neamat N, Yano SM, Alsalahat AL, **Sigward SM**. Quantifying Whole Body Compensations in Ground Reaction Forces During Gait in Individuals Post-ACLR. *Medicine and Science in Sports and Exercise*, Volume 50, 5S: 254. *American College of Sports Medicine*, Minneapolis, MN. 2018-Thematic Poster and President's Award-Poster Presentation
9. Lee Y, Chan MS, **Sigward SM**. L5s1 Excursion Reflects Knee Flexion Angle During A Drop Landing Task. *Medicine and Science in Sports and Exercise*, Volume 50, 5S: 688. *American College of Sports Medicine*, Minneapolis, MN. 2018- Poster Presentation
10. Lin PE, **Sigward SM**. Effects of an 8-week cadence training program on knee kinematics in individuals status-post ACL reconstruction. *Proceedings of the Combined Sections Meeting, APTA*, New Orleans, LA. 2018-Podium Presentation

11. Almansouri S, Kulig K, Enfinger D, Gahan A, **Sigward SM**. Patellar Tendon Macro- and Micro-Morphology Following Partial Resection for Anterior Cruciate Ligament Reconstruction. *Proceedings of the Combined Sections Meeting, APTA, New Orleans, LA. 2018-Podium Presentation*
12. Chan MS, Lin P, Ciccodicola EM, **Sigward SM**. How do individuals following anterior cruciate ligament reconstruction load their limbs outside the laboratory? *Proceedings of the Combined Sections Meeting, APTA, New Orleans, LA. 2018-Podium Presentation*
13. Nwigwe C, **Sigward SM**. Do Clinicians Prescribe Open Kinetic Chain Exercises During Rehabilitation Following Anterior Cruciate Ligament Reconstruction? *Proceedings of the Combined Sections Meeting, APTA, New Orleans, LA. 2018-Poster Presentation*
14. Pratt KA, Lin PE, Miller L, **Sigward SM**. Can Angular Velocity Asymmetries Predict Knee Power Asymmetries in Individuals status post-ACLR Performing a Drop Jump Task? *Proceedings of the Combined Sections Meeting, APTA, New Orleans, LA. 2018-Podium Presentation*
15. Kretch K, **Sigward SM**. Use of video in clinical movement analysis: Current practices and perspectives of physical therapists. *Proceedings of the Combined Sections Meeting, APTA, New Orleans, LA. 2018-Poster Presentation*
16. Chan M., Chen A., Eng T., Haskey E., & **Sigward SM**. Individuals following anterior cruciate ligament reconstruction adjust center of pressure location to redistribute loading from the knee to the hip. *Southwest Chapter of American College of Sports Medicine Annual Meeting, Long Beach, CA, 2017. -Poster Presentation*
17. Lin PE, Neamat Allah NH, Yano SM, Alsalahat AL, **Sigward SM**. Quantifying Compensations at the Whole Body Level During Gait in Individuals Post-ACLR. *Southwest Chapter of American College of Sports Medicine Annual Meeting, Long Beach, CA, 2017. -Podium Presentation*
18. Lin PE, Chan MSM, **Sigward SM**. Inter-joint compensations during early gait in individuals following ACL reconstruction. *Proceedings for the American Society of Biomechanics Conference, Boulder, CO, 2017. -Poster Presentation*
19. Chan MS, Lin PE, **Sigward SM**. Individuals following anterior cruciate ligament reconstruction adjust center of pressure location to redistribute loading from the knee to the hip. *Proceedings for the American Society of Biomechanics Annual Conference, Boulder CO, 2017. -Poster Presentation*
20. Lin PE, Glasser GM, Chan MSM, **Sigward SM**. Characterizing shank angular velocity during gait in individuals post-ACLR using IMUs in ecological settings. *Medicine and Science in Sports and Exercise, Volume 49:5S. American College of Sports Medicine, Denver, CO, 2017-Podium Presentation*
21. Chan, M-S, Hernandez E, **Sigward SM**. Validation of limb loading symmetry using wearable plantar pressure inserts: application for monitoring of daily loading. *Proceedings of the Combined Sections Meeting, APTA, San Antonio TX, February, 2017-Poster Presentation*
22. Panchal O, Detrick N, Pavlov A, Wong J, Pratt KA, **Sigward SM**. Knee and Hip Mechanics During Single Limb Squat in Individuals Status Post ACL Reconstruction. *Proceedings of the Combined Sections Meeting, APTA, San Antonio TX, February, 2017-Poster Presentation*

23. Chan MS, Lin PE, & **Sigward SM**. Limb loading ability during bilateral tasks in individuals following anterior cruciate ligament reconstruction. *Proceeding for the Congress of the International Society of Biomechanics*, Brisbane, Australia, 2017. -Podium Presentation
24. Chan MS, Lin PE, Hernandez EL, Fisher BE & **Sigward SM**. The effect of attentional focus on limb loading in individuals post anterior cruciate ligament reconstruction. *Proceedings of the North American Society for the Psychology of Sport and Physical Activity Annual Conference*, San Diego, CA, 2017. -Podium Presentation
25. Lin PE, Pratt KA, Cronenweth CL, Ebner SC, Chan MSM, Nascimento DP, **Sigward SM**. Effects of an 8-week Cadence Gait Training Program on Knee Loading in Individuals Following ACL Reconstruction. *American Society of Biomechanics*, Raleigh, NC, 2016 – Poster Presentation
26. Ebner SC, **Sigward SM**, Pratt KA, Chan MSM, Lin PE, Havens KL. Identifying Predictors of Thigh Axial Acceleration During Running After ACL Reconstruction. *American Society of Biomechanics*, Raleigh, NC, 2016 – Poster Presentation.
27. Pratt KA, Panchal O, Kirilin LE, Christensen RS, **Sigward SM**. Wearable Sensors can Detect Knee Loading Asymmetries: Applications for Clinical Use. *American College of Sports Medicine*, Boston, MA. 2016- Thematic Poster Presentation
28. Ebner SC, Havens KL, Pratt KA, Chan MM, Lin PE, Nascimento DP, **Sigward SM**. Can Thigh and Shank Accelerations Detect Between Limb Deficits during Running after ACL Reconstruction? *American College of Sports Medicine*, Boston, MA. 2016.- Thematic Poster Presentation
29. Chan MM, Lin PE, Pratt KA, Ebner SC, **Sigward SM**. Does Vertical GRF Asymmetry Reflect Knee Extensor Moment Asymmetry in Squat in Individuals following ACLr? *American College of Sports Medicine*, Boston, MA. 2016.- Poster Presentation
30. Lin PE, Pratt KA, Ebner SC, **Sigward SM**. Longitudinal Knee Loading Asymmetries During Mid to Terminal Stance of Gait Post-ACL Reconstruction. *American College of Sports Medicine*, Boston, MA. 2016.- Poster Presentation
31. Kelly DK, Lin P, Pratt K, **Sigward S**, Hamill J. Inter-Segment Coordination Variability post ACL Reconstruction. *American College of Sports Medicine*, Boston, MA. 2016.- Poster Presentation
32. Lin PE, Pratt KA, Ebner SC, **Sigward SM**. Longitudinal Knee Loading Deficits in Running in Individuals Status Post ACL Reconstruction. *Proceedings of the Combined Sections Meeting*, APTA, Anaheim CA. 2016-Podium Presentation
33. Pratt KA, **Sigward SM**. Segment Kinematics Relate to Knee Loading Deficits in Individuals status post-ACLR: Implications for Clinical use of Wearable Sensors. *Proceedings of the Combined Sections Meeting*, APTA, Anaheim CA, February, 2016-Poster Presentation
34. Wade E, Lin P, Hennati S, **Sigward S**. Predicting Daily Gait Behaviors after Anterior a Ligament Surgery: A Case Study. *IEEE Engineering in Medicine and Biology Society of the IEEE Engineering in Medicine and Biology Society* Milano, Italy during August 25-29, 2015.-Podium Presentation
35. Lin PE, Pratt KA, **Sigward SM**. Heel Rocker Mechanics in Gait are Different between Limb and Compared to Controls Following ACL Reconstruction. *Proceedings of the 39th American Society of Biomechanics*, Columbus OH, 2015- Poster Presentation

36. Havens KL, **Sigward SM**. Performance Biomechanics of Running and Cutting. *Proceedings of the 39th American Society of Biomechanics*, Columbus OH, 2015- Poster Presentation
37. Lawrence EL, Dayanidhi S, Cesar GM, **Sigward SM**, Valero-Cuevas FJ. Outcome Measures for hand and leg function naturally reveal latent domains of strength, limb coordination, and sensorimotor processing. *Proceedings of the 39th Annual Meeting of the American Society of Biomechanics*, Columbus, OH, August 5-8, 2015. - Poster Presentation
38. Chan M-S, Lin PE, Pratt KA, **Sigward SM**. Characterizing Knee Loading Asymmetry In Individuals Following Anterior Cruciate Ligament Reconstruction Using Inertial Measurement Units. *Medicine and Science in Sports and Exercise, Volume 47-Supplement 15.s*. American College of Sports Medicine, San Diego, CA. 2015.-Thematic Poster Presentation
39. Pratt KA, Lin PE, **Sigward SM**. Inter-joint Coordination In Individuals Following Anterior Cruciate Ligament Reconstruction During Single Limb Loading. *Medicine and Science in Sports and Exercise, Volume 47-Supplement 15.s*. American College of Sports Medicine, San Diego, CA. 2015.-Poster Presentation
40. Lin PE, Pratt KA, **Sigward SM**. Knee Extensor Moment Asymmetry is Related to Modulation of GRFs During Gait Post-ACL Reconstruction. *Medicine and Science in Sports and Exercise, Volume 47-Supplement 15.s*. American College of Sports Medicine, San Diego, CA. 2015.-Poster Presentation
41. Lawrence EL, Cesar GM, Bromfield M, Peterson R, **Sigward SM**, Valero-Cuevas FJ. Sex differences in control strategies for both static and dynamic balance in young adults. *Proceedings of the 25th Annual meeting of the Society for the Neural Control of Movement*, Charleston, SC, April 20-25, 2015.
42. Lawrence EL, Werner I, **Sigward SM**, Valero-Cuevas FJ. Sex differences in sensorimotor mechanisms for dynamic function of the upper and lower extremities. *Proceedings from the Annual Meeting of the Organization for the Study of Sex Differences (OSSD)*, Stanford University, Palo Alto, CA, April 21-23 2015.-Poster Presentation
43. Roll SC, Rana M, **Sigward S**, Yani M, Kirages D, Kutch J. Cadaveric validation and in-vivo measurement reliability of a novel linear-array transperineal sonographic evaluation of male pelvic floor structures. *Ultrasound in Medicine and Biology*, 2015, 41(4):S103.-Poster Presentation
44. Chan M-S, Mansoori S, Barroso M, **Sigward SM**. Detection of Spatiotemporal Gait Asymmetries Using Gyroscopes in Individuals Following Anterior Cruciate Ligament Reconstruction. *Proceedings of the Combined Sections Meeting*, APTA, Indianapolis, IN. 2015-Poster Presentation
45. **Sigward SM**, Lin PE, Pratt KA. Knee loading asymmetries in running are related to early gait asymmetries in individuals following anterior cruciate ligament reconstruction. *Proceedings of the Combined Sections Meeting*, APTA, Indianapolis, IN. 2015-Podium Presentation
46. Pratt KA, Lin PE, Pucciarelli M, **Sigward SM**. Knee Loading Deficits in a Single Limb Loading Task and Running During Early Initiation of Running in Individuals Status Post Anterior Cruciate Ligament Reconstruction. *Proceedings of the Combined Sections Meeting*, APTA, Indianapolis, IN. 2015-Podium Presentation

47. Lin PE, Pratt KA, Pucciarelli MLR, **Sigward SM**. Acute Effects of Cadence Manipulation on Knee Loading During Gait Following ACL Reconstruction. *Proceedings of the World Congress of Biomechanics*. Boston, MA. 2014-Poster Presentation
48. Haven KL, **Sigward SM**. Whole body Posture Depends on Velocity for Cutting Tasks. *Proceedings of the World Congress of Biomechanics*. Boston, MA. 2014-Poster Presentation
49. Pratt KA, **Sigward SM**. Reliability and Validity of Inertial Sensors for Movement Analysis during a Single Limb Loading Task. *Proceedings of the World Congress of Biomechanics*. Boston, MA. 2014-Poster Presentation
50. **Sigward SM**, Lin PE, Pratt KM, Pucciarelli LR. Gait Mechanics During Early Phases Of Anterior Cruciate Ligament Reconstruction Rehabilitation. *Medicine and Science in Sports and Exercise, Volume 46:5S*. American College of Sports Medicine, Orlando, FL. 2014- Poster Presentation
51. Cesar GM, Joutras DM, Parvez AH, **Sigward SM**. Children and Adults Employ Different Strategies to Terminate Running Gait. *Medicine and Science in Sports and Exercise, Volume 46:5*. American College of Sports Medicine, Orlando, FL. 2014- Poster Presentation
52. Lin PE, Pratt KA, Pucciarelli MLR, **Sigward SM**. Knee Loading Asymmetries During Early Phases Of Anterior Cruciate Ligament Reconstruction Rehabilitation. *Medicine and Science in Sports and Exercise, Volume 46:5*. American College of Sports Medicine, Orlando, FL. 2014-Poster Presentation
53. Cesar GM, Lewthwaite R, Joutras DM, Parvez AH, Gow I, **Sigward SM**. Child-Adult Differences in the Control of the Body Forward Momentum with Practice. *Proceedings of the North American Society for Psychology of Sport and Physical Activity*, Minneapolis, MN. 2014-Podium Presentation
54. Havens KH and **Sigward SM**. Biomechanics Associated with Excessive Ankle Inversion During a Cutting Maneuver. *Medicine and Science in Sports and Exercise, Volume 46:5S*. American College of Sports Medicine, Indianapolis, IN, 2013- Poster Presentation
55. Cesar GM, Parvez AH, **Sigward SM**. Postural Strategies for Running Gait Termination: Comparison Between Children and Adults. *Proceedings for the International Society of Biomechanics Annual Conference*. Natal, Brazil 2013-Poster Presentation.
56. Pratt KA, Leung K, **Sigward SM**. Criteria Physical Therapists Consider Critical for Return to Sport Status Post-ACL Reconstruction. *Proceedings of the Combined Sections Meeting*, APTA, San Diego CA, 2013-Podium Presentation
57. Cesar GM, Havens KH, Bogdanoff SM, Powers CM, Pollard CD, **Sigward SM**. Effect of Cutting Angle and Sex on Knee Valgus Moment. *Proceedings of the Combined Sections Meeting*, APTA, San Diego CA, 2013-Poster Presentation in the Sports Section
58. Havens K, Cesar G, **Sigward S**. Center of Mass Position-Velocity Relationship for the Control of Running Gait Termination. *Proceedings for the Gait and Clinical Movement Analysis Society Conference*. Grand Rapids, MI. May, 2012- Podium Presentation
59. Havens KL, **Sigward SM**. Deceleration: Relationship Between Body Posture and Velocity. *Proceedings for the American Society of Biomechanics Annual Conference*. Gainesville, FL. August, 2012- Poster Presentation

60. Pratt K, **Sigward S**. The Different Task Demands of a Drop Land and Side-Step Cut. *Proceedings for the American Society of Biomechanics Annual Conference*. Long Beach, CA. August, 2011- Poster Presentation
61. Cesar GM, Havens KL, Chang YJ, **Sigward SM**. Effects of cut angle and online processing on cutting maneuvers. *Proceedings for the American Society of Biomechanics Annual Conference*. Long Beach, CA. August, 2011- Poster Presentation
62. Havens KL, **Sigward SM**. Deceleration and Redirection Mechanics During a Cutting Maneuver. *Proceedings for the American Society of Biomechanics Conference*. Long Beach, CA. August, 2011- Poster Presentation
63. Powers C, Pollard C, Lee S, Cesar G, **Sigward S**. The Influences of Sex and Maturation on Knee valgus Moments During Cutting: Implications for ACL Injury. *Proceedings for the American Society of Biomechanics Annual Conference*. Providence, RI. August, 2010- Poster Presentation
64. Blanchette M, **Sigward S**, Powers C. Friction Demands During Running and Cutting. *Proceedings for the American Society of Biomechanics Annual Conference*. Providence, RI. August, 2010- Poster Presentation
65. **Sigward SM**, Pollard CD, Cheng W-C, Lee S-P, Powers CM. The Influence of Sex and Maturation on Landing Strategies: Implications for ACL Injury. *Journal of Athletic Training*, 45(5):537, 2010- Podium Presentation at ACL Retreat V
66. **Sigward SM**, Cheng W-C, Souza RB, Farrokhi S, Pollard CD, Powers CM. The relationship between dynamic knee valgus and hip structure, range of motion and strength during landing and cutting. *Proceedings of the Combined Sections Meeting*, APTA, San Diego CA, 2010-Podium Presentation
67. Havens KH, **Sigward SM**, Pollard CD, Cheng W-C, Powers CM. The Relationship between Frontal Plane Knee Separation Distance and Lower Extremity Joint Angles During Drop Land: Implications for Clinical Screening. *Journal of Athletic Training*, 45(5):540, 2010- Podium Presentation at ACL Retreat V
68. **Sigward SM**, Pollard CD, Cheng W-C, Lee S-P, Powers CM. The Influence of Gender and Maturation on Landing Strategies: Implications for ACL Injury. *Proceedings for the American Society of Biomechanics Annual Conference*. State College, PA. August, 2009 - Poster Presentation
69. Pollard CD, **Sigward SM**, Powers CM. Injury Prevention Training Results in Biomechanical Changes Consistent with Decreased Knee Loading in Female Athletes during Landing. *Proceedings for the American Society of Biomechanics Annual Conference*. State College, PA. August, 2009 - Poster Presentation
70. Havens KL, **Sigward SM**, Cheng W-C, Pollard CD, Powers CM. The Relation Between Knee Separation Distance and Lower Extremity Kinematics during a Drop Land: Implications for Clinical Screening. *Proceedings for the American Society of Biomechanics Annual Conference*. State College, PA. August, 2009 - Poster Presentation
71. Song J, Ferris A, **Sigward S**, Fisher B, Petzinger G, Parent M, Salem G. The Influence of Turning Strategy on Dynamic Postural Stability in Persons with Early Stage Parkinson's Disease.

Proceedings for the American Society of Biomechanics Annual Conference. State College, PA. August, 2009 - Poster Presentation

72. **Sigward SM**, Pollard CD, Powers CM. The Influence of an ACL Injury Prevention Program on Knee Valgus Moments During Cutting: An Evaluation of Pre-pubertal, Pubertal and Post-pubertal Athletes. *Journal of Athletic Training*, 43(5):559, 2008-Podium Presentation at ACL Retreat IV
73. Tsai LC, **Sigward SM**, Pollard CD, Fletcher MJ, Powers CM. The Effects of Fatigue and Recovery on Knee Kinetics and Kinematics During Side-Step Cutting. *Journal of Athletic Training*, 43(5):552, 2008-Podium Presentation at ACL Retreat IV
74. Pollard CD, **Sigward SM**, Powers CM. Stiff Landing Increases Frontal Plane Loading of the Knee. *Journal of Athletic Training*, 43(5):544, 2008-Podium Presentation at ACL Retreat IV
75. Song J, **Sigward S**, Fisher B, Petzinger G, Salem G. Dynamic postural stability in persons with early stage Parkinson's disease during turning activities. *Proceedings of the California Physical Therapy Association Annual Conference*, Oakland, CA. 2008- Poster Presentation
76. Song J, Fisher B, **Sigward S**, Petzinger G, Salem G. The effect of early stage Parkinson's on dynamic postural stability during turning activities. *Proceedings of the Society for Neuroscience Conference*, Washington DC, 2008- Poster Presentation
77. **Sigward SM**, Morcos AS, Myers G, Nelson AN. Lower Extremity Demands During Star Excursion Balance Tests. *Proceedings of the Combined Sections Meeting, APTA*, Nashville, TN, 2008- Poster Presentation
78. Yamaguchi N, Morcos AS, Thomann L, **Sigward SM**. Distribution of scores on clinical movement screen examinations in a population of high school female volleyball players. *Proceedings of the Combined Sections Meeting, APTA*, Nashville, TN, 2008- Poster Presentation
79. Morcos AS, Myers G, Nelson A, **Sigward SM**. Clinical Predictors of Knee Flexion Angle During a Single Leg Squat. *Proceedings of the Combined Sections Meeting, APTA*, Nashville, TN, 2008- Podium Presentation
80. Pollard CD, Powers CM, **Sigward SM**. Decreased Knee Flexion Angles During Landing Increases Frontal Plane Loading of the Knee. *Proceedings for the American Society of Biomechanics Annual Conference*. Palo Alto, CA. August, 2007- Poster Presentation
81. Lyle M, Pollard CD, Powers CM, **Sigward SM**. The Influence of Maturation and Lower extremity Kinetics on Swing Limb Foot Velocity in Young Females During a Soccer Kick. *Proceedings for the American Society of Biomechanics annual Conference*. Palo Alto, CA. August, 2007- Podium Presentation
82. Powers CM, Fisher BE, Lin J, Kantak S, Tan C, Pollard C, **Sigward SM**. Changes in lower extremity movement patterns are accompanied by motor cortex neuroplasticity: A case report. *Proceedings of the World Confederation of Physical Therapy*, 2007- Podium Presentation
83. **Sigward SM**, Pollard CD, Klenow MM, Montague SM, Power CM. The Influence of Maturation on Knee Mechanics During an Unanticipated Side-step Cutting Task. *Journal of Biomechanics*, 40(Supplement 2):171, 2007-Podium Presentation at International Society of Biomechanics

84. Tsai L-C, **Sigward SM**, Pollard CD, Fletcher MJ, Power CM. The Effects of Fatigue and Recovery on Knee Kinetics and Kinematics During Side-step Cutting. *Journal of Biomechanics*, 40(Supplement 2):102, 2007-Poster Presentation at International Society of Biomechanics
85. Pollard CD, **Sigward SM**, Powers CM. Mechanisms of ACL Injury: Current Perspectives. *Journal of Biomechanics*, 40(Supplement 2):254, 2007-Podium Presentation at International Society of Biomechanics annual meeting
86. Kessans KM, **Sigward SM**, Salem, GJ. Mechanics of a Unilateral Squat Exercise to Different Depths: Implications for Rehabilitation. *Medicine and Science in Sports and Exercise*, 39(5): Supplement:S256, 2007- American College of Sports Medicine, New Orleans, LA. 2006- Poster Presentation
87. **Sigward SM**, Pollard CD, Powers CM. The Influence of an ACL Injury Prevention Program on Hip and Knee Kinematics and Kinetics During an Unanticipated Side-step Cutting Maneuver in Young Female Athletes. *American Orthopaedic Society for Sports Medicine (AOSSM) 2006 Annual Meeting*, Hershey, PA, 2006- Podium Presentation.
88. **Sigward SM**, Powers CM. Loading Characteristics of Females Who Exhibit Excessive Valgus Moments During Side-step Cutting. *ACL Retreat 3: ACL Injuries: The Gender Bias*. Lexington, KY, 2006-Podium Presentation
89. **Sigward SM**, Markolf KL, Graves B, Chacko J, Jackson S and McAllister D. Where Should Posterolateral Corner Reconstructions be Placed for Optimum Graft Isometry? *52nd Annual Meeting of the Orthopaedic Research Society*. Chicago, IL 2006- Poster Presentation
90. Markolf, KL, Graves, B, **Sigward SM**, Jackson, S and McAllister DR. Biomechanical Studies of Popliteus Bypass or PFL Reconstructions in Conjunction With PCL Graft Reconstruction. *52nd Annual Meeting of the Orthopaedic Research Society*. Chicago, IL 2006- Poster Presentation
91. Markolf, KL, Graves, B, **Sigward SM**, Jackson, S and McAllister DR. Graft Reconstructions for the Posterolateral Corner Significantly Reduce Posterior Laxity and Forces in a PCL Graft. *52nd Annual Meeting of the Orthopaedic Research Society*. Chicago, IL 2006- Poster Presentation
92. Markolf KL, Graves B, **Sigward SM**, Jackson S and McAllister DR. How Well do Posterolateral Reconstructions Restore Varus Stability to the PCL Reconstructed Knee? *52nd Annual Meeting of the Orthopaedic Research Society*. Chicago, IL 2006- Poster Presentation
93. Pollard CD, **Sigward SM**, Ota S, Pelley K, Powers CM. Gender Differences in Hip Joint Kinematics and Kinetics During a Side-step Cutting Maneuver. *Proceedings for the American Physical Therapy Association Combined Sections Meeting*. New Orleans, LA, February 2005.
94. **Sigward SM**, Ota S, Pelley K, Powers CM. Predictors of Knee Valgus Moments in Female Athletes During Side-step Cutting. *Proceedings of the Combined Sections Meeting, APTA*, New Orleans, LA, 2005.
95. Powers CM, **Sigward SM**, Ota S, Pelley K. The Influence of Gender on Knee Kinematics, Kinetics and Muscle Activation Patterns During Side-step Cutting. *Journal of Athletic Training* 39(2):S14, 2004- Podium Presentation
96. **Sigward SM**, Ota S, Pelley K, Powers CM. The Influence of Experience on Kinematic, Kinetic and Muscle Activation Patterns During Side-step Cutting in Young Female Athletes. *Journal of Athletic Training* 39(2):S27, 2004- Podium Presentation

97. Powers CM, **Sigward SM**, Ota S, Pelley K: The Influence of an ACL Injury Training Program on Knee Mechanics During a Side-step Cutting Maneuver. *Journal of Athletic Training* 39(2):S27, 2004- Podium Presentation
98. Pollard CD, **Sigward SM**, Ota S, Pelley K, Powers CM: The influence of an ACL Injury Prevention Program on Lower Extremity Mechanics During a Landing Task. *Journal of Athletic Training* 39(2):S27-28, 2004- Podium Presentation
99. **Sigward SM**, Ota S, Powers CP. Predictors of Knee Valgus During a Drop Landing in Young Female Athletes. *Proceedings of the combined Sections Meeting, APTA*, Nashville, TN, 2004- Podium Presentation
100. **Sigward, SM**, Powers, CM. Biomechanical Analysis of Side-step Cutting: Are Females at Greater Risk for ACL Injury? *Proceedings of the IV World Congress Biomechanics*, Calgary, 2002- Poster Presentation
101. **Sigward SM**, Salem GJ, Powers CM. Lower Limb Alignment is Correlated with Frontal and Transverse Plane Moments at the Knee During Side-step Cutting. *Medicine and Science in Sports and Exercise*, 34(5):S173, 2002- Podium Presentation
102. **Sigward SM**, Salem GJ, Powers CM. Kinematic and Kinetic Analysis of Sidestep Cutting: A Comparison Between Males and Females. *Clinical Biomechanics*,16(10):937-59, 2001.
103. **Sigward SM**, Wang M-Y, and Salem GJ. Relative Repeatability of Isokinetic and Isotonic Measures of Knee Strength in Older Adults. *Proceedings of the American College of Sports Medicine*, Indianapolis, IN, 2000- Poster Presentation
104. Wang, M-Y, **Sigward S** and Salem GJ. Multiple-test Repeatability and Correlation of Knee isokinetic and Isotonic Muscle Strength in Older Adults. *Proceedings of the 42nd Annual Conference on Physical Therapy in Taiwan*, 2000- Podium Presentation

INVITED PRESENTATIONS

1. Invited Lecture Learned Non-Use: Recovery from Anterior Cruciate Ligament Reconstruction, Seijoh University, Tokai, Japan, October 19, 2019
2. Keynote Speaker Learned Non-Use: Recovery from Anterior Cruciate Ligament Reconstruction. 2018 International Conference of Sports, Taipei, Taiwan, December 7-8, 2018
3. Invited Lecture Learned Non-Use: Recovery from Anterior Cruciate Ligament Reconstruction. National Cheng Kung University Department of Physical Therapy, Tainan, Taiwan, December 10, 2018
4. Invited Lecture Learned Non-Use: Recovery from Anterior Cruciate Ligament Reconstruction. School and Graduate Institute of Physical Therapy, College of Medicine, National Taiwan University, Taipei, Taiwan, December 11, 2018
5. ACL Injury Prevention: Past, Present, and Future. Invited Speaker, Combined Sections Meeting Educational Session, Las Vegas, NV, February 2014
6. HOT TOPICS: ACL Injury Prevention. Invited Speaker, California Chapter of the American Physical Therapy Association Meeting, Oakland, CA, October 2010.

7. Developing Successful Prospective Investigations and Randomized Control Trials. Invited Speaker, Researchers' Forum 61st NATA Annual Meeting & Clinical Symposia. Philadelphia, PA, June 2010.
8. ACL Injuries – The Gender Bias, Research Retreat V: Risk Factor Screening. Session Moderator, Greensboro, NC April 3-5, 2010.
9. ACL Injuries – The Gender Bias, Research Retreat V: ACL Injuries in the Prepubescent and Adolescent Athlete: Clinical and Research Considerations. Session Discussant, Greensboro, NC April 3-5, 2010.
10. ACL Injuries – The Gender Bias, Research Retreat IV: Landing and Cutting-Gender Comparison. Session. Moderator, Greensboro, NC April 3-6, 2008.
11. Building Resistance to ACL injury: An evidence based approach. Invited Speaker, Omaha Sports Medicine Alliance: A Clinical Approach to Practical Problems, Omaha, Nebraska. July 26, 2008
12. ACL Injury Prevention: An Evidence Based Model for Clinical Practice. Invited Speaker, California Chapter of the American Physical Therapy Association Meeting, Los Angeles, CA, October, 2007.
13. ACL Injury Prevention: An Evidence Based Model for Clinical Practice. Invited Speaker, Arizona Athletic Trainers Association Annual Meeting, Flagstaff, AZ, July, 2007
14. Evidence Based Approach to the Non-Surgical Painful Knee, Practical Anatomy Workshop, Saint Louis University, St. Louis, MO, April, 2007
15. The contribution of abnormal hip mechanics to knee to knee injury: A top down perspective, Designing a hip intervention program to treat the knee: What is important? Invited Speaker, Combined Sections Meeting of the American Physical Therapy Association, Boston, MA, February, 2007.
16. ACL Injury Prevention: An Evidence Based Model for Clinical Practice. Invited Speaker, Combined Sections Meeting of the American Physical Therapy Association, Boston, MA, February, 2007.
17. ACL Injury Prevention: An Evidence Based Approach. Invited Speaker, American Physical Therapy Association Annual Conference, Orlando, FL, June, 2006.
18. ACL Injuries – The Gender Bias, Research Retreat III: Strength and Injury. Session Moderator, Lexington, KY, April 6-8, 2006.
19. Developments in Clinical Practice Based on Key Principles of Motor Learning. *Arizona Physical Therapy Association Annual Meeting*, Phoenix, AZ. October 6-8, 2005.
20. “Biomechanical and Neuromuscular Aspects of Non-contact ACL Injuries”. Invited Speaker, APTA Combined Sections Meeting, Tampa, FL, Feb, 2004.
21. ACL Injuries – The Gender Bias, Research Retreat II: Intervention Programs. Session Moderator, Lexington, KY, April 4-5, 2003.

PROFESSIONAL ACTIVITIES**Professional organizations/Positions Held**

Member	National Athletic Trainers Association
Member	American Physical Therapy Association
Member	Research Section Biomechanics Research Special Interest Group: <u>Chair (2008-2011)</u>
Member	Orthopedic Section Research Committee member (2009-2012) Sports Section
Member	California Chapter of the American Physical Therapy Association California Research Special Interest Group: <u>Chair (2008-2012)</u>
Member	American College of Sports Medicine Biomechanics Interest Group: <u>Co-Chair (2015-2019)</u>
Member	American Society of Biomechanics

Extramural Service

2015, 2005-06	Grant reviewer, National Athletic Trainers Association (NATA) Research and Education Foundation
2014	Grant reviewer, Health Research Board, Dublin
2013– present	Member, National Athletic Trainer’s Association; ACL Injury Prevention Consensus Statement Committee
2012 – present	Editorial Board Member, Journal of Athletic Training
2012	Reviewer, National Athletic Trainers Association, 2013 Annual Meeting proposal
2011	Organizing Member of Host Institution, American Society of Biomechanics Annual Meeting
2008 –2009	Grant Review Committee, Orthopedic Section of the American Physical Therapy Association
2008 – present	Grant reviewer, California Physical Therapy Fund
2008 – present	Abstract Reviewer, Orthopedic Section of the American Physical Therapy Association

Peer review for journals:

American Journal of Sports Medicine
 Archives of Physical Medicine and Rehabilitation
 Clinical Biomechanics
 Gait & Posture
 Journal of Applied Biomechanics
 Journal of Athletic Training-*Editorial Board*
 Journal of Orthopedic Research
 Journal of Orthopedic and Sports Physical Therapy
 Medicine & Science in Sports & Exercise
 Scandinavian Journal of Medicine & Science in Sports
 Sports Health
 Sports Biomechanics

2001 – 2005 Lecturer (All labs)
 DPBL501 - *Dental Problem Based Learning -- Human Structure*

Courses Taught at University of Southern California (School of Medicine, Physician Assistant Program)

2003 - present Lecturer (8 labs)
 PCPA530-*Human Anatomy*

Courses Taught at University of Southern California (School of Medicine, Nurse Anesthesia Program)

2004 - present Lecturer (2 labs, 1 lecture)
 ANST500-*Human Anatomy*

Courses Taught at University of Southern California (Occupational Therapy Program)

2000-2006 Co-Director/Lecturer (2 lectures, all labs)
 OT260 - *Human Functional Anatomy for Occupational Therapists*

Student Mentoring: PhD Committees (USC)

2005–2009 Joeeun Song, Member, Dissertation Committee
 2008– 2012 Kathryn Havens, Co-Chair, Dissertation Committee
 2009– 2014 Guilherme Cesar, Chair, Dissertation Committee
 2010–2016 Kristamarie Pratt, Chair, Dissertation Committee
 2010– 2015 Danielle Jarvis, Member, Dissertation Committee
 2011–2014 Rami Hashish, Member, Dissertation Committee
 2011– 2015 Jennifer (Petersen) Bagwell, Member, Dissertation Committee
 2012– 2018 Ming-Sheng Chan, Chair, Dissertation Committee
 2012– 2018 Paige Lin, Chair, Dissertation Committee
 2017– present Sara Almansouri, Chair, Dissertation Committee
 2018-present Rachel Straub, Member, Dissertation Committee
 2019-present Weiyang Deng, Member, Dissertation Committee
 2020- present Jiaqi Wang, Chair, Dissertation Committee
 2020- present Willa Ma, Chair, Dissertation Committee

Student Mentoring: MS (USC)

2007-2009 Wei-Cheng Cheng, Primary advisor
 2014-2016 Sarah Ebner, Primary advisor
 2015-2017 Sara Almansouri, Primary advisor
 2016-2018 Yunae Lee, Co-advisor
 2016-2018 Katie Lerch, Co-advisor
 2017-2019 Nicole Schwery, Primary advisor
 2017-2019 Richard Mercer, Primary advisor
 2018-2020 Briana Ramos, Primary advisor
 2018-2020 Aaron Sanchez, Primary advisor

Student Mentoring: Residency (USC)

2015 Sophia Gonzalez-Sports
 2015 Adrienne Peterson- Orthopedic
 2015 Chukwuemeka Nwigwe- Orthopedic
 2014 Shireen Mansoori- Orthopedic
 2014 Max Barroso-Sports

2014	Martha Broomfield- Orthopedic
2014	Richard Peterson- Orthopedic
2013	Alex Rombough- Orthopedic
2013	Kenneth Leung- Orthopedic

Student Mentoring: Undergraduate

2015-2016	Olivia Panchal
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McNair Scholars Program: A Graduate School Preparation and Research Training Program (USC)

2010	Bryson Gauff
2008	Erin O'Donnell