

Jun G. San Juan, Ph.D., ATC

516 High St.

Bellingham, WA 98225

Office: (360) 650-2336

Email: jun.sanjuan@wwu.edu

EDUCATION

PhD in Human Physiology (Biomechanics) – 2009

University of Oregon

Dissertation: “Glenohumeral kinematics during Suprascapular Nerve Block”

Advisor: Andrew R. Karduna, PhD

MA in Physical Education (Biomechanics) – 2003

San Diego State University

Master’s Thesis: “Effects of Pelvic Stabilization on Lumbar Muscle Activity during Dynamic Exercise”

Advisor: James A. Yaggie, PhD, RKT

Bachelor of Sports Science – 2000

University of the Philippines

Diliman, Quezon City, Philippines

ACADEMIC EXPERIENCE AND EMPLOYMENT

2020 – Present	<i>Professor of Kinesiology</i> Department of Health and Human Development Western Washington University Bellingham, WA
2016 – 2020	<i>Associate Professor of Kinesiology (Tenured)</i> Department of Health and Human Development Western Washington University Bellingham, WA
2013 – 2016	<i>Assistant Professor of Kinesiology</i> Department of Health and Human Development Western Washington University Bellingham, WA
2011 – 2013	<i>Director of Biokinesiology</i> Tensegrity Physical Therapy, Eugene, OR
2009 – 2011	<i>Assistant Professor in Sport Science</i> Division of Physical Education and Sport Studies Loras College, Dubuque, IA
2004 – 2009	<i>Graduate Teaching Fellow: Teaching and Research Assistant</i> Orthopaedic Biomechanics Laboratory University of Oregon, Eugene, OR

COURSES TAUGHT

Western Washington University (2013-Present)

Undergraduate Courses:

Biomechanics (KIN 311)
Function Anatomy (KIN 312)
Functional Assessment of Elderly Individuals (KIN 409)
Human Anatomy Dissection (KIN 412)

Graduate Courses:

Lab Techniques in Exercise Science (KIN 510)
Biomechanics of Musculoskeletal Injury (KIN 544)

Loras College (2009-2011)

Biomechanics & Kinesiology (SSC 332)
Musculoskeletal Anatomy (SSC 334)
Athletic Training Clinical (ATR 281)
Therapeutic Modalities (ATR 382)
Care & Prevention of Athletic Injuries (ATR 131)
Human Anatomy & Physiology (BIO 260)

University of Oregon (2004-2009)

Human Anatomy Lecture (ANAT 311)
Human Anatomy Lab 1 & 2 (ANAT 314 & 315)
Therapeutic Techniques 1: Therapeutic Modalities (HPHY 408)
Essentials of Strength Training and Conditioning (HPHY 410)
Biomechanics (HPHY 381) – Lecture & Lab

PUBLICATION

*Undergraduate Student

+Graduate Student

**Primary Advisor

1. Schlittler SE, Suprak DN, Brilla LR, and **San Juan JG** (2024). Effects of Changing Hip Position on Scapular Kinematics. *J Appl Biomech.* 2024 Oct 30:1-8. doi: 10.1123/jab.2024-0012. Epub ahead of print. PMID: 39481365..
2. +Mackay EJ, Robey NJ, Suprak DN, Buddhadev HH, ****San Juan JG** (2023). The effect of EMG biofeedback training on muscle activation in an impingement population. *Journal of Electromyography and Kinesiology.* 2023 Jun;70:102772. doi: 10.1016/j.jelekin.2023.102772. Epub 2023 Apr 7. PMID: 37043978.
3. +Rosete, F, Brilla, L, **San Juan, JG**, +Hummer, E, and Suprak, D (2021). Isometric, Eccentric, and Concentric Strength in Trained and Untrained Older Adults: A Pilot Study. *International Journal of Kinesiology & Sports Science.* 2021 9;4. <http://dx.doi.org/10.7575/aiac.ijkss.v.9n.4p.13>.

4. +Hummer ET, +Murphy EN, Suprak DN, Brilla LR, ****San Juan JG.** (2021). Movement direction impacts knee joint kinematics during elliptical exercise at varying incline angles. *Knee*. 2021 Feb 25;29:201-207. doi: 10.1016/j.knee.2021.02.008. Epub ahead of print. PMID: 33640619.
5. +Hummer E, Murphy E, Suprak DN, Brilla L, ****San Juan JG.** (2020) The effects of a standard elliptical vs. a modified elliptical with a converging footpath on lower limb kinematics and muscle activity. [published online ahead of print, 2020 Jun 30]. *J Sports Sci*. 2020;1-8. doi:10.1080/02640414.2020.1786241.
6. +Fife, AN Buddhadev HH, Suprak DN, Paxon SB, San Juan JG. (2020). Effect of pedal stance width manipulation via pedal spacers on lower limb frontal plane kinematics during cycling. *Journal of Science and Cycling*. 9(1), 33-43. <https://doi.org/10.28985/0620.jsc.05>.
7. +Hummer ET, Suprak DN, Buddhadev HH, Brilla LR, ****San Juan JG.** (2019). Creatine electrolyte supplement improves anaerobic power and strength: a randomized double-blind control study. *Journal of the International Society of Sports Nutrition*. 2019 May 24; 16(1):24. doi: 10.1186/s12970-019-0291-x.
8. *Dykes B, +Johnson J, ****San Juan JG.** (2019). Effects of finger taping on forearm muscle activation in rock climbers. *Journal of Electromyography and Kinesiology*. 2019 Apr;45:11-17. doi:10.1016/j.jelekin.2019.01.004. Epub 2019 Jan 28.
9. **San Juan JG,** Suprak DN, Roach SM, Lyda M. (2018). Lower Extremity Strength and Range of Motion in High School Cross-Country Runners. *Appl Bionics Biomech*. 2018 Aug 8;2018:6797642. doi: 10.1155/2018/6797642. eCollection 2018.
10. +Younis Aslan HI, Buddhadev HH, Suprak DN, ****San Juan JG.** (2018). Acute effects of two hip flexor stretching techniques on knee joint position sense and balance. *Int J Sports Phys Ther*. 2018 Aug;13(5):846-859.
11. Buddhadev HH, +Crisafulli DL, Suprak DN, **San Juan JG.** (2018). Individuals With Knee Osteoarthritis Demonstrate Interlimb Asymmetry in Pedaling Power During Stationary Cycling. *J Appl Biomech*. 2018 Aug 1;34(4):306-311. doi: 10.1123/jab.2017-0363. Epub 2018 Jul 10.
12. +Crisafulli DL, Buddhadev HH, Brilla LR, Chalmers GR, Suprak DN, **San Juan JG.** (2018). Creatine-electrolyte supplementation improves repeated sprint cycling performance: A double blind randomized control study. *J Int Soc Sports Nutr*. 2018 May 2;15:21. doi: 10.1186/s12970-018-0226-y. eCollection 2018.
13. **San Juan JG,** +Gunderson S, *Kane-Ronning K, Suprak DN. (2016). Scapular kinematic is altered after electromyography biofeedback training. *Journal of Biomechanics*. 49(9):1881-6. doi: 10.1016/j.jbiomech.2016.04.036.
14. Lugade, V., Chen, C-J., Erickson, C., Fujimoto, M., **San Juan, JG.**, Karduna, AR., Chou, L-S. (2015). Comparison of an Electromagnetic and Optical System during Dynamic Motion. *Biomedical Engineering Applications, Basis and Communications*. 27(5). doi: 10.4015/S1016237215500416
15. **San Juan, JG.**, Roach, S., Lyda, M., Suprak, DN. (2015). The effects of exercise type and elbow angle on vertical ground reaction force and muscle activity during a push-up plus exercise. *BMC Musculoskeletal Disorders*. 16: 23.

16. Roach, SM., ****San Juan, JG.**, Lyda, M., Suprak, DN., Boydston, C., Bies, AJ. (2015). Passive Hip Range of Motion is Reduced in Active Subjects with Chronic Low Back Pain Compared to Controls. *International Journal of Sports Physical Therapy*. 10(1): 13-20.
17. Roach, S., ****San Juan, JG.**, Lyda, M., Suprak, DN., Boydston, C. (2014). Patellofemoral Pain Subjects Exhibit Decreased Passive Hip Range of Motion Compared to Controls. *International Journal of Sports Physical Therapy*. 9(4): 468-75.
18. **San Juan, JG.**, Kosek, P., Karduna, AR. (2013). Humeral head translation after a suprascapular nerve block. *Journal of Applied Biomechanics*. 29(4): 371-79.
19. Roach, S., Sorenson, E., Headley, B., ****San Juan, JG.** (2013). Myofascial Trigger Points in the Hip as a Contributing Factor in Patellofemoral Pain. *Archives of Physical Medicine and Rehabilitation*. 94(3): 522-526.
20. Roach, S., ****San Juan, JG.**, Lyda, M., Suprak, DN. (2013). Concurrent Validity of Digital Inclinator and Universal Goniometer in Assessing Passive Hip Mobility in Healthy Subjects. *International Journal of Sports Physical Therapy*. 8(5): 680-88.
21. Suprak, DN., *Donegan, J., *Morales, G., *Stroschein, J., **San Juan, JG.** (2013). Scapular kinematics are altered by shoulder elevation in a traditional push-up. *Journal of Athletic Training*. 48(6): 826-35.
22. **San Juan, JG.**, Karduna, AR. (2010). Measuring humeral head translation using fluoroscopy: A validation study. *Journal of Biomechanics*. 43(4): 771-74.
23. **San Juan, JG.**, Yaggie, JA., Levy, S., Mooney, V., Udermann, BE., Mayer, JM. (2005). Effects of pelvic stabilization on lumbar muscle activity during dynamic exercise. *Journal of Strength and Conditioning Research*. 19(4): 903-7.

In Preparation

1. **San Juan JG.**, +Brocato C, Buddhadev HH, Hummer ET, Suprak DN. Kinematic relationships between single-leg step-down test and midstance of running. *Gait and Posture*.
2. **San Juan JG.**, +Lovekin E, **Davis A, and Lugade V. Validity and reliability of a smartphone in measuring postural stability. *For Gait and Posture*.
3. +Corl-Baietti, B, Suprak, DN, Washburn, N, **San Juan, JG***. The effects of six weeks of hip muscle exercises on frontal plane knee kinematics during a drop jump test in middle school-aged students. *For International Journal of Sports Physical Therapy*.

Published Peer-reviewed Abstracts

1. +Younis Aslan HI, Buddhadev HH, Suprak DN, ****San Juan JG.** (2018). Acute Effects of Two Hip Flexor Stretching Techniques on Knee Joint Position Sense and Balance. *Medicine & Science in Sports & Exercise*. 50(5S):389, MAY 2018.
2. +Crisafulli DL, Buddhadev HH, Brilla LR, Chalmers GR, Suprak DN, **San Juan JG.** (2017). Sprint Cycling Performance Improvement Post-creatine Supplementation is Associated with Increase in Lean Body Mass. *Medicine & Science in Sports & Exercise*. 49(5S):80, MAY 2017.

3. +Miller DR, Brilla LR, **San Juan JG**, Suprak DN, Buddhadev HH. (2017). Differently Formulated Creatine Effects On Fatigue, Work, And Power In Resistance-trained Subjects. *Medicine & Science in Sports & Exercise*. 49(5S):84, MAY 2017.
4. +Rosete, FA., Brilla, L., Suprak, DN., **San Juan, JG.**, (2015). Eccentric, concentric, and isometric strength in trained and untrained older adults. *Medicine & Science in Sports & Exercise*. 47:24-25.
5. Mayer, JM., Udermann, BE., **San Juan, JG.**, Logan, S., Delar-Higgins, D., Verna, J., Mooney, V. (2005). Improvements in self-reported functional ability of patients with musculoskeletal complaints following a restorative exercise program. *Medicine & Science in Sports & Exercise*. 37(5) S146.

*Undergraduate Student

+Graduate Student

**Primary Advisor

CONFERENCE PARTICIPATION

Presentation by Invitation

Non-Refereed

San Juan JG, and Olinger K. Effects of anterior knee pain on lower extremity kinematics in runner. University Distinguished Lectures, Western Washington University, Bellingham, WA, May 2019.

San Juan, JG. Biomechanical factors affecting running-related injury. *Winter 2015 College of Humanities and Social Sciences Dean's Lecture Series*, Bellingham, WA, February 2015.

Refereed

San Juan, JG., Plenary Speaker: Improving running performance using functional assessment for movement education. *2014 National Conference on Sport Pedagogy*, Philippines, Diliman Quezon City, November 2014.

Papers Presented at Scholarly Meetings

1. +Yun J, Jantzen KJ, Suprak DN, *Robbins LG, *Wyrick EN, *Nooney, AP, and ****San Juan JG**. The Acute Effects of Transcranial Direct Current Stimulation on Sports Performance. 2025 American Society of Biomechanics, Pittsburgh, PA, August 2025.
2. +Yun J, Jantzen KJ, Suprak DN, *Robbins LG, *Wyrick EN, *Nooney, AP, and ****San Juan JG**. The acute effects of transcranial direct current stimulation on jump height, knee extensor strength, and time to exhaustion. 2025 Northwest Biomechanics Symposium, University of British Columbia, Vancouver, May 2025.
3. +Schlittler S, Suprak D, Brilla L, and **San Juan JG**. Effects of changing hip position on scapular kinematics in an athletic population. 2024 Northwest Biomechanics Symposium, University of Oregon May 2024.
4. **San Juan JG**, +Lovekin E, *Davis A, and Lugade V. The use of smartphones in measuring static postural stability. American Society of Biomechanics 2023 Annual Meeting, University of Tennessee, Knoxville, August 2023.

5. +Lovekin E, Lugade V, *Davis A, and ****San Juan JG**. Validity and reliability of a smartphone in measuring postural stability. 2023 Northwest Biomechanics Symposium, University of Washington May 2023.
6. Schlittler S, Suprak D, Brilla L, and **San Juan JG**. Effects of hip position on scapular kinematics. 2023 Northwest Biomechanics Symposium, University of Washington May 2023.
7. +Antush M, +Viera S, Stolzoff R, Brilla L, Suprak D, **San Juan JG**. Structural Integration Effects on Postural Alignment of Young Recreational Athletes: A Pilot Study. 6th International Fascia Research Congress, Montreal, Quebec, September 2022.
8. +Mackay EJ, Robey NJ, Suprak DN, Buddhadev HH, and ****San Juan JG**. Scapular stabilizer muscles in shoulder impingement patients after electromyography biofeedback training. *American Society of Biomechanics-Virtual Conference*. August 2021.
9. +Mackay EJ, Robey NJ, Suprak DN, Buddhadev HH, and ****San Juan JG**. The effect of electromyography biofeedback training on scapulohumeral rhythm in shoulder impingement patients. *2021 Northwest Biomechanics Symposium-Virtual Conference*, July 2021.
10. +Olinger K, +Brocato C, Suprak DN, Buddhadev HH, +Mackay EJ, and ****San Juan JG**. Motions of the trunk, hip and knee during a single leg step-down test and running in patellofemoral pain. *2019 Northwest Biomechanics Symposium*, Montana State University, Bozeman, MT, May 2019.
11. Brilla LR, +Viera S, Stolzoff R, Suprak DN, +Antush M, **San Juan JG**. (2018). Structural integration 10-series effects on balance and postural alignment in soccer players. *Fascia Research Congress*, Berlin, Germany. November 2018.
12. *Dykes B, +Johnson J, ****San Juan JG**. (2018). Effects of finger taping on forearm muscle activation in rock climbers. *American Society of Biomechanics*. Rochester, MN. August 2018.
13. +Brocato C, Suprak DN, Buddhadev HH, +Olinger K, ****San Juan JG** (2018). Motions of the hip and knee during a single leg step-down test and running. 2018 Northwest Biomechanics Symposium, Western Washington University, Bellingham, WA, May 2018.
14. +Antush MT, +Barbee CE, +Perry SK, ****San Juan JG** (2018). Ankle stability when running with an injured ankle braced vs. Unbraced. 2018 Northwest Biomechanics Symposium, Western Washington University, Bellingham, WA, May 2018.
15. +Younis Aslan HI, Buddhadev HH, Suprak DN, ****San Juan JG**. (2017). Acute Effects of Two Hip Flexor Stretching Techniques on Knee Joint Position Sense and Balance. *American College of Sports Medicine*, Denver, CO. May 2017.
16. +Arens TM, Suprak DN, **San Juan JG**. Brilla LR, (2017). Effects hand position on scapular kinematics in a traditional a push-up. *American Society of Biomechanics*. Boulder, CO. August 2017.
17. Buddhadev HH, +Crisafulli DL, Suprak DN, **San Juan JG**. (2017). Individuals with knee osteoarthritis show asymmetry in pedaling mechanics. *American Society of Biomechanics*. Boulder, CO. August 2017.
18. +Cordell JH, Jantzen KJ, Surpak DN, *McGinnis W, *LaRussa J, ****San Juan JG**. (2017). The effects of fatigue on the motor evoked potential of the infraspinatus. *International Society of Biomechanics*. Brisbane, Australia. July 2017.

19. +Lyons SM, Buddhadev HH, Suprak DN, ****San Juan JG.** (2017). The Effect of Knee Extension Angle on Knee Joint Position Sense Between Genders. *International Society of Biomechanics*. Brisbane, Australia. July 2017.
20. *Jordan A, +Johnson J, ****San Juan JG.** (2017). The relationship between gluteus medius strength and dynamic q-angle. *Northwest Biomechanics Symposium*, Eugene, OR. May 2017.
21. +Hummer, ET., ****San Juan, JG.**, Suprak, DN., +Thorsen, MM., +Murphy, EN. A kinematic comparison of forward and reverse motion on a modified elliptical. *American Society of Biomechanics*, Raleigh, NC, August 2016.
22. **San Juan, JG.**, +Gunderson, S., *Kane-Ronning, K., Suprak, DN. Effects of electromyography biofeedback training on scapular kinematics. *Philippine-American Academy of Science & Engineering Symposium*, Washington, DC July 2016.
23. +Hummer, ET., Suprak, DN., +Crisafulli, H., Buddhadev, H., **San Juan, JG.**, Brilla, L. The effect of a multi-ingredient performance supplement on back squat and bench press performance. *National Strength and Conditioning Association*. New Orleans, LA, July 2016.
24. +Lyons, SM., +Cordell, J., *Gossage, J., Suprak, DN., ****San Juan, JG.** Validity and reliability of an iPod touch in measuring knee joint position sense. *Northwest Biomechanics Symposium*, Vancouver, BC Canada, June 2016.
25. +Arens, TM., Suprak, DN., **San Juan, JG.**, Brilla, L. Effects hand position during a push-up on scapular kinematics. *Northwest Biomechanics Symposium*, Vancouver, BC Canada, June 2016.
26. +Viera, S. Suprak, D.N., Brilla, L.R., **San Juan, JG.**, Stolzoff, R. The effect of structural integration on ankle joint position sense and balance. *Fourth International Fascia Research Congress*, Washington, DC, September 2015.
27. **San Juan, JG.**, +Gunderson, S., *Kane-Ronning, K., Suprak, DN. Scapular kinematic is altered after electromyography biofeedback training. *American Society of Biomechanics*, Columbus, Ohio, August 2015.
28. +Gunderson, S., ****San Juan, JG.**, Cunningham, WL., Suprak, DN. The effects of a five-week exercise intervention using EMG biofeedback on scapular kinematics and scapular stabilizer muscle activation. *American Society of Biomechanics*, Columbus, Ohio, August 2015.
29. +Rosete, FA., Brilla, LR., Suprak, DN., **San Juan, JG.** Eccentric, Concentric and Isometric Strength in Trained and Untrained Older Adults. *American College of Sports Medicine*, San Diego, CA, May 2015.
30. +Hummer, ET., ****San Juan, JG.**, +Murphy, EN., +Thorsen, MM., Suprak, DN. A kinematic comparison of the Precor EFX elliptical model and a modified elliptical. *Northwest Biomechanics Symposium*, Seattle, Washington, May 2015.
31. +Gunderson, S., ****San Juan, JG.**, Cunningham, WL., Suprak, DN. The effects of a five-week exercise intervention using EMG biofeedback on scapular kinematics and scapular stabilizer muscle activation. *Northwest Biomechanics Symposium*, Seattle, Washington, May 2015.
32. **San Juan, JG.**, Roach, S., Lyda, M., Suprak, DN. The effects of exercise type and elbow angle on vertical ground reaction force and muscle activity during a push-up plus exercise. *World Congress of Biomechanics*, Boston, Massachusetts, July 2014.

33. +Gunderson, S., *Kane-Ronning, K., Estep, J., Suprak, DN., ** **San Juan, JG.** The Acute Effects of EMG Biofeedback on Lower Trapezius Activation and Scapular Kinematics. *Northwest Biomechanics Symposium*, Salem, Oregon, May 2014.
34. **San Juan, JG.**, Kosek, P., Karduna, A. The effects of suprascapular nerve block on humeral head translation. *American Society of Biomechanics*, University Park, Pennsylvania, August 2009.
35. Chen, CJ., Fujimoto, M., Ewers, S., Amasay, T., **San Juan JG.**, Lugade, V., Erickson, C., Chou, LS., Karduna, AR. Repeatability of in-vivo motion analysis: optical vs. electromagnetic tracking systems. *American Society of Biomechanics*, University Park, Pennsylvania, August 2009.
36. **San Juan, JG.**, Kosek, P., Karduna, A. Humeral Head Translation After A Suprascapular Nerve Block. *Northwest Biomechanics Symposium*, Pullman, Washington, June 2009.
37. **San Juan, JG.**, Karduna, A. Measuring in-vivo humeral head translation using fluoroscopy: A comparison of static and dynamic positioning. *American Society of Biomechanics*, Ann Arbor, Michigan, August 2008.
38. **San Juan, JG.**, Karduna, A. Measuring in-vivo humeral head translation using fluoroscopy: A comparison of static and dynamic positioning. *International Shoulder Group*, Bologna, Italy, July 2008.
39. **San Juan, JG.**, Karduna, A. Measuring humeral head translation using fluoroscopy: A validation study. *American Society of Biomechanics*, Blacksburg, Virginia, September 2006.
40. **San Juan, JG.**, Lee, L., Karduna, A. Measuring humeral head superior translation using fluoroscopy. *Northwest Biomechanics Symposium*, Seattle, Washington, May 2005.

*Undergraduate Student

+Graduate Student

**Primary Advisor

GRANTS

Funded

Western Washington University, Summer 2023
 Summer Research Grant – Research and Sponsored Programs
 Position: Principal Investigator (PI) Amount: \$6,000

Western Washington University, Spring 2022
 Mini-Grant – Research and Sponsored Programs
 Position: Principal Investigator (PI) Amount: \$1,000

Western Washington University, Summer 2019
 Summer Teaching Grant – Research and Sponsored Programs
 Position: Principal Investigator (PI) Amount: \$6,000

Western Washington University, Spring 2019
 Mini-Grant – Publication Support – Research and Sponsored Programs
 Position: Principal Investigator (PI) Amount: \$2,200

Western Washington University, Summer and Fall 2018
Mini-Grant – Publication Support – Research and Sponsored Programs
Position: Principal Investigator (PI) Amount: \$2,500

Western Washington University, Summer 2017
Summer research grant – Department of Health and Human Development
Hip Flexor Stretching Techniques on Knee Joint Position Sense and Balance
Position: PI Amount: \$6,000

Western Washington University, Summer 2016
Summer research grant – Department of Health and Human Development
Using an iPod touch to measure knee joint position sense
Position: PI Amount: \$6,000

Supplement Evaluation (Albion Laboratories, Clearfiled, UT) 2015 – 2016
The company requested input to evaluate the effects of creatine and electrolytes supplementation as an ergogenic aid in exercise performance.
Position: Co-Principal Investigator (Co-PI) Amount: \$36,948

Western Washington University, Summer 2015
Project Development Award – Research and Sponsored Programs
Position: PI Amount: \$8,000

Western Washington University, Spring 2015
Student Technology Fee Grant – Equipment Purchase
Position: Co-PI Amount: \$25,000

Western Washington University, Winter 2015
Mini-Grant – Publication Support – Research and Sponsored Programs
Position: PI Amount: \$1,500

Elliptical Prototype Evaluation (PreCor USA, Woodinville, WA), 2014 – 2015
The company requested input to compare a prototype of a modified elliptical exercise machine to a current design and to evaluate the biomechanics of the elliptical.
Position: Co-PI Amount: \$32,768

Western Washington University, Summer 2014
Summer research grant – Research and Sponsored Programs
Acute effects of EMG biofeedback training on scapular kinematics
Position: PI Amount: \$6,000

Elliptical Prototype Evaluation (PreCor USA, Woodinville, WA), Spring 2014
The company requested input to refine the prototype of a modified elliptical exercise machine, and evaluate the biomechanics of the elliptical.
Position: Co-PI Amount: \$14,898

Western Washington University, Fall 2013
Grant-In-Aid – Research and Sponsored Programs
Help purchase equipment needed for data collection.
Position: Co-PI Amount: \$2,500

Loras College Summer Research Grant – Summer 2011
Shoulder Rotational Deficits in Little League Baseball Players During a Season
Position: PI Amount: \$2,500

University of Oregon – Summer 2008
Sue Moshberger Research Conference Support Award
Position: PI Amount: \$1,000

Not Funded

NIH R21 – Academic Research Enhancement Award – Winter 2021
Longitudinal Gait Assessment and Intervention of Older Adults with and without a History of Falls using
Participants' Smartphones.
Position: Co-PI Amount: \$275,000 (Direct Cost)

NIH R15 – Academic Research Enhancement Award – Spring 2019
Altering Scapular Kinematics using Electromyography Biofeedback Training in
Shoulder Impingement Population.
Position: PI Amount: \$300,000 (Direct Cost)

NIH R15 – Academic Research Enhancement Award – Winter 2017
Altering Scapular Kinematics using Electromyography Biofeedback Training in
Shoulder Impingement Population.
Position: PI Amount: \$383,176
Impact Score: 42
Percentile: 33

NIH R15 – Academic Research Enhancement Award – Summer 2014
Examine the effects of electromyography biofeedback training on scapular muscle activation and
kinematics in healthy and shoulder impingement populations.
Position: PI Amount: \$356,805

Oregon Track Club – Grassroots Grant Program – Fall 2012
Pre-Season Functional Screening in High School Cross Country Runners
Position: PI Amount: \$17,474

National Athletic Trainers' Association Doctoral Grant – Winter 2007
Humeral Translation under Suprascapular Nerve Block
Position: PI Amount: \$2,500

American Society of Biomechanics Grant in Aid – 2006
Humeral Translation under Suprascapular Nerve Block
Position: PI Amount: \$2,500

SERVICE TO THE UNIVERSITY

Western Washington University

Department

2024 – Present	Kinesiology Graduate Program Coordinator
2023 – 2024	Tenure Track Position – Exercise Physiology – Search Committee
2023 – 2024	Kinesiology and Physical Education Scholarship Representative
2016 – Present	Carver Academic Facility – Cadaver, Anatomy & Physiology Lab Steering Committee
April 2019	Chair – Search Committee – HHD Instructional and Lab Technician
2015 – 2023	Kinesiology and Physical Education Communication Support
2013 – 2017	Carver Facilities Safety Warden
2013 – 2015	Program Accreditation and Support – KPE
2014 – 2015	Search Committee for Neuromotor Faculty Position

College – College of Humanities and Social Sciences

2021 – 2023	Tenure and Promotion Committee – Chair (2021-2022)
2018 – 2019	Tenure and Promotion Committee – CHSS
2015 – 2016	Search Committee for Dean of the CHSS
2014 – 2016	CHSS Computer Advisory Committee

University

2024 – Present	Graduate Faculty Governance Council
2021 – 2024	Honors College Board
2021 – 2022	University Faculty Mentoring Program – Mentor
2021 – 2022	Paul J Olscamp Research Award – Selection Committee
2020 – 2022	Faculty Senate Library Committee
2019 – 2020	Search Committee for Vice Provost for Research and Dean of Graduate School
2017 – 2018	Search Committee for Research Compliance Officer
2016 – 2018	Faculty Senate
2014 – 2016	Academic Technology Committee
2014 – 2015	Scholars Week Poster Session Judging

Loras College

2010 – 2011	Faculty Senator
2009 – 2011	Physical Education and Sport Science Faculty Club Advisor
2010 – 2011	Search Committee for Program Director in Athletic Training

STUDENT RESEARCH ADVISING

Master's Students

2025	**Eugene Cabamalan, <i>In Progress</i>
	Riley Comeaux, <i>In Progress</i>
	Reuben Schoeman, <i>In Progress</i>
	Soh Dehnert, <i>In Progress</i>

2024 **Jillian Chandler
Grace Truesdale

2023 **Jesse Yun
**Johann Lahud-Zahner, *In Progress*

2022 Rob Broman
Taylor Walston

2020

**Eliot Mackay, Effects of electromyography biofeedback exercises in shoulder pain individuals, Western Washington University.

**Sean White, Post-Activation Potentiation in collegiate athletes, Western Washington University, *In Progress*.

Justine Nuckols, Athlete Nutrition during COVID-19, Western Washington University.

Sarah Pine, The Effects of Hip Position on Scapular Kinematics and Muscle Activation in the Oblique Sling, Western Washington University.

Julianna Johnson, Active and passive joint position sense of healthy hips, Western Washington University.

2019

**Haliagh White, Examining the kinematics of sagittal plane pelvic motion during kettlebell swing activity, Western Washington University, *In Progress*

**Katie Olinger, Lower extremity kinematics in Patellofemoral pain patients during single-leg step-down test and running, Western Washington University.

**Blake Corl-Baietti, Effects of a hip-strengthening program on lower extremity motion during a drop-jump landing in middle school children, Western Washington University.

Andrew Fife, Effect of pedal stance width manipulation via pedal spacers on lower limb frontal plane kinematics during cycling, Western Washington University.

2018

Gary Wiley, Does cycling cadence affect interlimb symmetry in pedaling power in individuals with Parkinson's disease? Western Washington University.

**Cody Brocato, Joint motions of the knee, hip, and trunk during a single-leg step-down test and running, Western Washington University.

2017

**Joseph Cordell, Effect of rotator cuff fatigue on cortical excitability, Western Washington University.

**Hussain Aslan, Acute effects of two hip flexor stretching techniques on knee joint position sense and balance, Western Washington University.

**Jayson Shepherd, The effects of an ankle strengthening and proprioception protocol on strength and joint position sense. Western Washington University

Donnelly Miller, Six weeks of creatine-electrolyte supplement effects on muscle fatigability, Western Washington University

Matt Thorsen, The impact of a linear versus converging path elliptical trainer and crossramp angle on lower extremity muscle activation, Western Washington University

2016

***Erik Hummer, Increase in Bench Press Performance due to Multi-ingredient Performance Supplement, Western Washington University, Graduated 2016.

Damien Fisher, The Effect of Velocity-Based Training as a Method of Auto-Regulation in Collegiate Athletes, Western Washington University, Graduated 2016.

Shandra Knapstad, Cognitive motor interference in adults with LCVA and typical comparison peers under single- and dual-task conditions. Department of Communication Sciences & Disorders, Western Washington University, Graduated 2016.

2014 – 2015

***Samantha Gunderson, Effects of Electromyography Biofeedback Training on Scapular Kinematics during a 6 Weeks Scapular Stabilization Exercises, Western Washington University, Graduated 2015.

**Eryn Murphy, Trunk Fatigue and Lower Extremity Kinematics during Drop Landing, Western Washington University, Graduated 2015.

Jenifer Estep, Using Augmented Eccentric in Strengthening Lower Extremity of Older Adults, Western Washington University, Graduated 2015.

Sarah Viera, Effects of Structural Integration in Ankle Joint Position Sense, Western Washington University, Graduated 2015.

Amber Hagel, Effect of Location of Stroke on Dual-Task Interference during Walking. Department of Communication Sciences & Disorders, Western Washington University, Graduated 2015.

Fernando Rosete-Castellanos, Eccentric Strength in Older Adults, Western Washington University, Graduated 2014.

**Thesis Chair

+Most Outstanding Exercise Science Graduate Student

Undergraduate Research Students

Honors Program Senior Project

Shannon Stein, Effects of different bow positions and shoulder height on scapular kinematics and muscle activation in Experienced Violin Players. Western Washington University. Honors Seniors Thesis. Expected completion Spring 2021.

Brynne Dykes, Effects of finger taping on forearm muscle activation in rock climbers. Western Washington University. Honors Seniors Thesis. Spring 2017.

Alexandra Jordan, The relationship between gluteus medius strength and dynamic q-angle. Western Washington University. Honors Seniors Thesis. Winter 2016.

Kailey Barnette, Effect of Hip Flexor Flexibility on Oxygen Consumption and Stride Length in College-Aged Individuals. Western Washington University. Honors Seniors Thesis. Winter 2016.

Undergraduate/Graduate Research Assistant

Western Washington University

2023-2024

Leanne Robbins

Ella Wyrick

2022-2023

April Davis

2019-2020

Lena Le

Tyler Verrill

Eliot Mackay

Sarah Pine

Stephanie Hall

2018-2019

Benjamin Clark

Christine Anderson

Nick Braman

2017-2018

Blake Corl-Baietti

Jenny Duong

Stephanie Hall

2016-2017

Josh LaRussa

Will McGinnis

Julio Almanzar

Rien Grootveld

Kasey Mallon-Andrews

2015-2016

Julian Gossage

Nikolai Powell

Gary Wiley

Zach Lentini

2014-2015

Leah Royal
Lauren Zilke
Aslie Juan
Kaila East
Zoe Geiger
Kai Kane-Ronning
Joshua Vlach

Other institutions:

Heather Salzer, High School Cross Country Lower Extremity Kinematics during Treadmill Running and Its Relationship during In-Season Injury. Clarks Honors College, University of Oregon, Graduated 2013.
Jordan Metz, Glenohumeral Internal Rotation Deficit in Little League Players. Loras College, Graduated 2012.

CONFERENCE ORGANIZATION

Northwest Biomechanics Symposium, Co-Organizer, May 2018.

Session Chairing

Northwest Biomechanics Symposium, Injury Biomechanics, May 2025.
Northwest Biomechanics Symposium, Sports, July 2021.
Northwest Biomechanics Symposium, Sports and Injury Prevention, May 2019.
Northwest Biomechanics Symposium, Spine and Tissue, May 2017.
Northwest Biomechanics Symposium, Prosthetics and Orthotics, May 2015.
Northwest Biomechanics Symposium, Joint and Tissue Mechanics, May 2014.

Presentation Abstract Reviewer

American Society of Biomechanics
Northwest Biomechanics Symposium

MANUSCRIPT AND GRANT REVIEWER

External Grant Reviewer, Health Research Board, Dublin, Ireland
Research Training Fellowships for Healthcare Professionals

Ad-Hoc External Manuscript Reviewer

Journal of Biomechanics
Clinical Biomechanics
Gait and Posture
American Journal of Sports Medicine
Journal of Applied Biomechanics
Archives of Physical Medicine and Rehabilitation
Osteoarthritis and Cartilage
International Biomechanics
BMC Musculoskeletal Disorders
Clinical Orthopaedics and Related Research

Journal of Sports Sciences
Journal of Science and Medicine in Sport
PLOS ONE

PROFESSIONAL AFFILIATION

National Athletic Trainers' Association (Certification # 040502055)
American Society of Biomechanics
International Shoulder Group
International Society of Biomechanics

MEDIA APPEARANCES

- Spring 2017 Kinesiology and Common Injuries. Spark Science Spark Radio 102.3 FM KMRE. Bellingham, WA. <https://www.youtube.com/watch?v=fhSpKjFYc70>
- Winter 2015 Born to Run? Biomechanical factors affecting running related injury. *College of Humanities and Social Sciences Dean's Lecture Series*, Bellingham City Council Chambers. Bellingham TV Channel 10. <https://chss.wvu.edu/lectures/born-run-biomechanical-factors-running-injuries>.