

CURRICULUM VITAE

JARED R STEELE

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EDUCATION

Postdoctoral Fellow	Harvard University	2025
<i>PI: Daniel Lieberman</i>		
PhD	Brigham Young University	2024
Exercise Science: <i>Biomechanics</i>		
<i>PI: Iain Hunter</i>		
MA	San Francisco State University	2020
Kinesiology: <i>Exercise Physiology</i>		
BS	University of Oregon	2016
Major: <i>Human Physiology</i>		
Minor: <i>Biology</i>		

RESEARCH EXPERIENCE

Visiting Assistant Professor , Auburn University	2026 - Present
Assistant Professor , Marshall University	2025 - 2026
• Sports Biomechanics • Vestibular function & baseball performance	
Postdoctoral Fellow , Harvard University	2024 – 2025
• Human Foot: Anatomy and Function • Evolution of Shoe Engineering on running biomechanics • Role of Masseter and face morphology on bite force	
Doctoral Candidate , Brigham Young University	2021 – 2024
Running Biomechanics Laboratory	
• Distance Running Performance • Shoe Technology • Markerless Motion Capture • Environmental Influence on Running Mechanics	

Masters Student, San Francisco State University 2016 – 2020

Undergraduate Research Assistant, University of Oregon 2013 - 2016
Cardiovascular Physiology Laboratory

- Cardiovascular Health
- Thermoregulation
- Metabolic Disease

TEACHING EXPERIENCE

Marshall University 2025 – 2026

- HS 365: Functional Kinesiology
- HS 466: Biomechanical Analysis of Movement (*Graduate*)
- HS 535: Biomechanical Programming (*Graduate*)
- HS 615/635: Kinematic and Kinetic Analysis (*Graduate*)

Harvard University 2024 - 2025

- Research in Skeletal Biomechanics and Physiology (HEB 110)

Brigham Young University 2021 - 2024

- Advanced MusculoSkeletal Anatomy (EXSC 440)
- Exercise Physiology Lab (EXSC 464)
- Biomechanics (EXCS 362)

Terra Nova High School 2017 - 2020

- Anatomy and Physiology
- Biology
- Earth Science
- Physics

University of Oregon (Undergraduate TA) 2013 - 2016

- General Anatomy Lab Sequence
- Exercise Physiology
- Human Anatomy & Physiology I / II / III

PUBLICATIONS

Peer-reviewed Journal Articles

1. Ely, B. R., Blanchard, L. A., **Steele, J. R.**, Francisco, M. A., Cheuvront, S. N., & Minson, C. T. (2018). Physiological Responses to Overdressing and Exercise-Heat Stress in Trained Runners. *Medicine and Science in Sports and Exercise*, 50(6), 1285–1296

2. **Steele, J., & Hunter, I.** (2025). Influence of Total Running Experience on Lower Leg Variability: Implications for Control and Performance in Male Athletes. *Sports*, 13(2), 58.
3. **Steele, J. R.,** Taylor, M., Bradshaw, C., Ward, J. B., VanKeersbilck, L., & Hunter, I. (2025). Can Level Ground Biomechanics Predict Uphill and Downhill Running Economy?. *Journal of Applied Biomechanics*, 41(5), 463-468.
4. **Steele, J. R.,** VanKeersbilck, L., Bruening, D., Gifford, J., Seeley, M., & Hunter, I. (2025). How Oxygen Uptake, Ground Reaction Forces, and Kinematics Respond to Air Resistance and Drafting During Treadmill Running. *Journal of Applied Biomechanics*, 41(6), 511-518.
5. **Steele, J.,** VanKeersbilck, L., Ward, J. B., & Hunter, I. (2025). Advanced Footwear Technology Slows Oxygen Uptake Drift and Reduces Neuromuscular Fatigue During Extended Running. *International Journal of Sports Physiology and Performance*, 21(1), 65-71.
6. **Steele, J. R.,** VanKeersbilck, L., & Hunter, I. (2025). Air resistance modulates horizontal ground reaction forces during treadmill running. *Journal of Biomechanics*, 113014.
7. **Steele, JR.,** Grant, J., Konz., SM (2026). Dual-Range Inertial Sensing Resolves Accelerometer Saturation During Springboard Diving Water Entry (SUBMITTED) *Journal of Biomechanics*
8. **Steele, JR** (2026). Men “hit the wall” at a similar distance to women but decelerate more often and more steeply in marathon racing (Submitted) *Journal of Sports Sciences*
9. **Steele, JR** (2026). Ceiling or Depth? Sex, Event, and Rank Patterns in Elite Distance Running During the Advanced Footwear Era (SUBMITTED) *Journal of Sports Sciences*
10. **Steele, JR** (2026). Movement-variability metrics differ in stride-count reliability and in association with running experience (SUBMITTED) *Journal of Applied Biomechanics*

Published Abstracts

1. **Steele JR,** Ely BR, Minson CT, FACSM. Over-dressing during exercise in temperate environmental conditions mimics physiological strain of exercise in the heat. Poster session presented at: American College of Sports Medicine, Northwest Chapter Annual Conference 2015 Feb 27-28; Bend, OR.

2. Jeckell AT, Brunt VE, Francisco MA, Ely BR, **Steele JR,** Minson CT, FACSM. The effect of chronic passive heat therapy on forearm reactive hyperemia. Poster session presented at: American College of Sports Medicine, Northwest Chapter Annual Conference 2015 Feb 27-28; Bend, OR.

3. **Steele JR**, Brunt VE, Ely BR, Comrada LN, Minson CT, FACSM. Plasma volume changes with passive heat acclimation: a comparison of methods. Poster session presented at: American College of Sports Medicine, Northwest Chapter Annual Conference 2016 Apr 14-16; Tacoma, WA.
4. Johnston, L., **Steele, J.**, Vankeersbilck, L., & Hunter, I. (2022). Effect of Air Resistance on Braking and Propulsive Impulses During Treadmill Running. *International Journal of Exercise Science: Conference Proceedings*, 14(2).
5. **Steele, J.**, Bolter, N., Veri, M., & Lee, M. (2021). Effects Of Various Self-Myofascial Release Devices On 60-Meter Sprint Performance. *International Journal of Exercise Science: Conference Proceedings*, 14(1).

PRESENTATIONS AT SCIENTIFIC MEETINGS

Poster Presentations

Regional Meeting Poster Presentations

1. Over-dressing during exercise in temperate environmental conditions mimics physiological strain of exercise in the heat. American College of Sports Medicine, Northwest Chapter Annual Conference, Bend, OR 2015.
2. Plasma volume changes with passive heat acclimation: a comparison of methods. American College of Sports Medicine, Northwest Chapter Annual Conference Tacoma, WA 2016.
3. Effects of Heat Acclimation on Athletic Performance, Muscle Metabolism and Physiology. San Francisco State University. 18th Annual Student Project Showcase, San Francisco, CA 2016.
4. Effects of Various Self-Myofascial Release Devices On 60-Meter Sprint Performance American College of Sports Medicine, Southwest Chapter Annual Conference, Los Angeles, CA 2021.
5. The Impact of Running Experience on Segment Coordination Variability. Rocky Mountain American Society of Biomechanics, Estes Park, CO 2022.
6. Air resistance and drafting induce metabolic, kinetic and kinematic changes during running. Rocky Mountain American Society of Biomechanics, Estes Park, CO 2024.

National Meeting Poster Presentations

1. Mechanics of Running Grade Ability. American College of Sports Medicine, Annual Meeting, San Diego, CA 2022.

2. Drafting Induces Metabolic, Kinetic and Kinematic Changes in Runners. American Society of Biomechanics, Annual Meeting, Madison, WI 2024
3. The Influence Of Pacing Strategies On Post-race Plasma Cardiac Troponin I At The Boston Marathon. American College of Sports Medicine, Annual Meeting, Boston, MA 2024.

International Poster Presentations

1. Stride-by-Stride Variability Impacts on Running Economy. North American Congress on Biomechanics, Ottawa, Canada 2022.

Podium Presentations

Regional Meeting Podium Presentations

1. Effect of wind resistance on braking and propulsive impulses during treadmill running. Rocky Mountain American Society of Biomechanics, Estes Park, CO 2023.
2. Drafting Induces Metabolic, Kinetic and Kinematic Changes in Runners Rocky Mountain American Society of Biomechanics, Estes Park, CO 2024.

International Podium Presentations

1. Influence of air resistance on braking and propulsive impulses during treadmill running. International Society of Biomechanics, Fukuoka, Japan 2023.

COLLABORATION PROJECTS

1. Strong Youth Project – Brigham Young University (Dr. Seeley)
 - a. "Effects of different coaching cues on single-leg triple hop performance and segmental coordination for youth athletes"
 - b. "Effects of coaching cues on drop jump and ACL injury risk"
2. Boston Marathon Study – BYU & Stanford (Dr. Hunter & Dr. Bleich)
 - a. "A Study of the Association of Between Cardiolocomotor Synchronization, Myocardial Injury Biomarkers, and Running Performance during the 2023 Boston Marathon"

PUBLIC PRESENTATIONS

1. “Put the science back into your cardio fitness” – San Francisco Unified School District presentation for K-12 physical educators. 2017
2. “Speed, Cardio and Fun: Adding speed and targeted pacing to your cardio fitness program” - San Francisco Unified School District presentation for K-12 physical educators. 2019
3. “Biomechanics in action!” – Springville High School for Physics students. 2023 Celebrating International Biomechanics Day.
4. “Exploring Careers in Biomechanics” – Kaiser Permanente (KP Launch Program). 2024

UNDERGRADUATE HONOR THESIS - MENTOR

1. Valeria Barriobero – “Influence of advanced footwear technology (AFT) on running and walking biomechanics” (Harvard 2025’)
2. Charlotte Gilmour – “Biomechanics and positional requirements of collegiate women’s rugby” (Harvard 2025’)
3. Kate Izzo – “Effect of speed and ACL reconstruction on joint stiffness in collegiate field hockey athletes” (Harvard 2025’)
4. Mia McBride – “Lower Extremity Fatigue and Injury Association During Manual Patient Transfers” (Marshall 2026’)
5. Tyler Young – “The Relationship of GRF Timing in High vs. Low Handicap Golfers” (Marshall 2026’)

GRADUATE STUDENT- MENTOR

1. Bryan Booth – “Effect of Neurocognitive Training on Hitting Performance in Collegiate Baseball Players” (Marshall 2026’)
2. Trey Chapman – “Do Shoes Matter for Analyzing CMJ Data in Collegiate Basketball Players” (Marshall 2027’)

RESEARCH GRANTS

1. **Rethink EMG Challenge** (*External; Not Funded*)
Title: SupserShoes and Fatigue Related Responses in Runners Across the LifeSpan.
Role: Co-Investigator with PI Iain Hunter, PhD

Direct Costs: \$160,000
Year: 2022

2. **BYU CURA** (*Internal; Funded*)

Title: Advanced Footwear Technology Influences Fatigue and Metabolic Demand During 90-minutes of Running
Role: Co-Investigator with PI Iain Hunter, PhD
Direct Costs: \$4,000
Year: 2023

3. **BYU CURA** (*Internal; Funded*)

Title: Walking With Advanced Footwear Technology Shows Similar Metabolic Improvements as Running
Role: Co-Investigator with PI Dustin Bruening, PhD
Direct Costs: \$4,000
Year: 2024

4. **Nike Award for Athletic Footwear Research** (*External; Not Funded*)

Title: Do SuperSpikes have comparable performance outcomes as SuperShoes?
Role: Co-Investigator with PI Iain Hunter, PhD
Direct Costs: \$5,000
Year: 2023

5. **Graduate Student Creative Discovery & Research Award** (*Internal; Not Funded*)

Title: Effect of Shaft Length and Composition on Golf Swing Biomechanics
Role: PI
Direct Costs: \$2,700
Year: 2025

6. **Graduate Student Creative Discovery & Research Award** (*Internal; Not Funded*)

Title: Detection of Hidden Movement Compensation Patterns in Cleared Post-ACL Reconstruction Athletes
Role: PI
Direct Costs: \$2,700
Year: 2025

7. **Aging Research Study Pilot Grant** (*External; Not Funded*)

Title: Does Physical Activity Slow the Aging Gait Effect
Role: Co-Investigator
Direct Costs: \$50,000
Year: 2026

PROFESSIONAL AFFILIATIONS

American College of Sports Medicine
USATF
USTFCCA
American Society of Biomechanics

AWARDS

- BYU: Outstanding Student Program Award: Research 2024
- **Winner:** BYU 3MT Competition 2023
- **Winner:** College of Life Sciences 3MT Competition 2023
- **Finalist:** 2023 Graduate Student Research Competition SWACSM 2023
- **Winner:** USATF Mel Ramey Sports Science Contribution 2022
- Stephanie Jackson Human Anatomy TA of the year 2016
- American College of Sports Medicine: **Steve Gaskill Award** 2016