

Curriculum Vitae

LAUREN A. LUGINSLAND, MS

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EDUCATION

Old Dominion University, Norfolk, VA **Aug 2021-May 2024**

Doctor of Philosophy in Kinesiology and Rehabilitation

Specialization: Biomechanics

Dissertation Title: *“A Biomechanical Analysis of Gait in Persons with Autism Spectrum Disorder: A Diversified Approach”*

University of Mississippi, Oxford, MS **Aug 2016-May 2018**

Master of Science in Exercise Science

Specialization: Biomechanics

Thesis Title: *“The Influence of Self-Prescribed Knee Bracing on Walking in Healthy Adults”*

University of Scranton, Scranton, PA **Aug 2012-May 2016**

Bachelor of Science in Exercise Science

Minor: Psychology, Concentration: Nutrition

Independent Project: *“Influence of a Knee Brace on Ipsilateral Hip Kinematics of Various Slopes”*

EMPLOYMENT

Postdoctoral Scholar, Tampa, FL **May 2024**

University of South Florida - Department of Neurosurgery & Brain Repair Morsani College of Medicine – Academic Research

- Neuromusculoskeletal Biomechanics and Chiropractic Research Laboratory

Cabells Publishing Co., Beaumont, TX **Jun 2020-Mar 2022**

Journal Quality Auditor – Academic Research (Remote, Part-Time)

- Audit academic research journals
- Identify and evaluate predatory reports

Scottish Rite Hospital for Children, Dallas, TX **Aug 2018-Jul 2021**

Biomechanist II - Movement Science Laboratory (MSL)

Oct 2020-Jul 2021

- Lead MSL Coordinator: Hip Registry
- Internship Program Coordinator
- Maintain all research and clinical obligations as a Biomechanist I

Biomechanist I - Movement Science Laboratory (MSL)

Aug 2018-Oct 2020

- Research: study design, IRB paperwork, patient recruitment/chart review, clinical examination/testing, data processing/management, analyze and interpret data, prepare data for research meetings, abstracts, and manuscripts
 - Hip Registry – oversee collection, processing, and assist with study design for all hip registry patients (400+ patients)

- Clinical: collect data/range of motion, prepare clinical reports to be reviewed by orthopedic surgeons and clinicians

National Institute for Occupational Safety and Health (NIOSH) May 2018–Aug 2018

Morgantown, WV

Summer Research Fellow – Awarded by Oak Ridge Institute for Science and Education (ORISE Zintellect) through an interagency agreement between the U.S. Department of Energy (DoE) and Centers for Disease Control and Prevention (CDC)

- Biomechanics Team - Engineering and Control Technology Branch within the Health Effect Laboratory Division

ACADEMIC APPOINTMENTS

Old Dominion University Aug 2021-Present

Graduate Teaching and Research Assistant

Department of Human Movement Sciences, Old Dominion University, Norfolk, VA

Associated Lab: Neuromechanics Laboratory

Affiliated Doctoral Scholar: Center for Movement, Health, & Disability

University of Mississippi Aug 2016-May 2018

Graduate Teaching and Research Assistant

Department of Health, Exercise Science, and Recreation Management, University of Mississippi, University, MS

Associated Lab: Applied Biomechanics Laboratory

University of Scranton Jan 2014 – May 2016

Teaching and Research Assistant

Department of Exercise Science and Sport, University of Scranton, Scranton, PA

Associated Lab: Human Movement and Ergonomics Laboratory

TEACHING EXPERIENCE

Old Dominion University, Norfolk, VA Aug 2021-Present

Instructor of Record:

EXSC 417: Biomechanics Lecture

EXSC 417L: Biomechanics Laboratory

Graduate Teaching Assistant:

EXSC 727: Advanced Biomechanics

AT 691: Gross Anatomy (Cadaver Labs)

HNRS 226: Undergraduate Research Apprenticeship

University of Mississippi, Oxford, MS Aug 2016-May 2018

Instructor of Record:

ES 447: Biomechanics of Human Movement Laboratory

ES 100: Introduction to Exercise Science

HP 203: Red Cross Responding to Emergencies (First Aid/CPR)

EL 156: Jogging

EL 151: Weight Lifting

STUDENT MENTORING

Undergraduate Student Research - Old Dominion University

Advised and mentored undergraduate independent research studies. Resulted in a presentation at the 2023 undergraduate research symposium

<https://digitalcommons.odu.edu/undergradsymposium/2023/posters/35/>

Movement Science Lab Internship Program - Scottish Rite Hospital for Children

Recruit and mentor high school, undergraduate, and graduate level kinesiology/engineering students for summer, fall and spring rotations.

Responsible for assisting in the teaching of clinical research processes:

- Experimental design and data collection
- Processing/analysis: Vicon Nexus, Vicon Polygon, Run MATLAB scripts
- Co-lead lecture series about clinical research and professional development
- Presentations: end of internship presentations, encourage conferences/symposiums submissions

PEER-REVIEWED JOURNAL PUBLICATIONS

Anable, N.A., **Luginsland, L.A.**, Carlos, C., Stevens, W.R., Loewen, A.M., Jeans, K.J., Sucato, D.S. Investigating Pelvic Drop Gait Abnormality in Pre-Operative Hip Pathology Patients. *Gait & Posture*. (Accepted, In Press).

Haegele, J.A., Zhu, X., **Luginsland, L.A.** The Role of Social Support in the Relationship between Physical Activity and Health-related Quality of Life among Adults with Visual Impairments. *Disability and Health Journal*. (In Press)

<https://doi.org/10.1016/j.dhjo.2023.101518>

Luginsland, L.A., Haegele, J.A., Bennett H.J. Lower Extremity Joint Stiffness during Running in Adolescents with Autism Spectrum Disorder. *Journal of Biomechanics*. 149, 2023.

<https://doi.org/10.1016/j.jbiomech.2023.111478>

Gdovin, J.R., Wade, C., **Luginsland, L.A.**, Williams, C.C., Galloway, R., Garner, J.C. The Influence of Shoe and Cleat Type on Lower Extremity Muscle Activation in Youth Pitchers. *International Journal of Kinesiology & Sports Science*. 10(1):44-51, 2022.

<https://doi.org/10.7575/aiac.ijkss.v.10n.1p.44>

Luginsland, L.A., Stevens Jr., W.R., Loewen, A.M., Tulchin-Francis K. The Relationship of Coronal Trunk Motion on Hip Abductor Moment Impulse in Pre-Operative Hip Pathology Patients during Walking. *Clinical Biomechanics*. 80(6):105196, 2020.

<https://doi.org/10.1016/j.clinbiomech.2020.105196>

Williams C.C., Donahue P.T., Wilson S.J., Mouser J.G., Hill C.M., **Luginsland L.A.**, Gdovin J.G., Wade C, Garner J.C. Examining Changes in Bat Swing Kinematics in Different Areas of the Strike Zone in Collegiate Baseball Players. *International Journal of Kinesiology and Sport Science*. 8(2), 1-6, 2020.

<https://doi.org/10.7575//aiac.ijkss.v.8n.2p.1>

Gdovin, J.R., Wade, C., Williams, C.C., **Luginsland, L.A.**, Wilson, S.J., & Garner, J.C. Impact of Shoe and Cleat Type on Youth Baseball Pitching Biomechanics. *Journal of Sports Biomechanics*. 21(6), 761-772, 2019.
<https://doi.org/10.1080/14763141.2019.1679243>

Gdovin, J.R., Williams, C.C., Wilson, S.J., Cazas-Moreno, V.L., **Luginsland, L.A.**, Allen, C.R., Chander, H., Wade, C., Garner, J.C. Influences of Athletic Footwear on Ground Reaction Forces During a Side Step Cutting Maneuver on Artificial Turf. *International Journal of Kinesiology and Sports Science*. 6(2), 30-36, 2018.
<https://doi.org/10.7575/aiac.ijkss.v.6n.2p.30>

Wilson, S.J, Williams, C.C., Gdovin J.R., Eason J.D., **Luginsland, L.A.**, Hill C.M., Chander, H., Wade C., Garner, J.C. The Influence of an Acute Bout of Whole Body Vibration on Human Postural Control Responses. *The Journal of Motor Behavior*. 50(5), 590-597, 2018. <https://doi.org/10.1080/00222895.2017.1383225>

MANUSCRIPTS UNDER-REVIEW

Luginsland L.A., Haegele, J.A., Laverdure, P.A., Bennett H.J. Walking Patterns in Persons with Autism Spectrum Disorder: A Systematic Review. *World Scientific: Annual Review of Biomechanics*. (Revisions Submitted 03/2024).

Anable, N.A., **Luginsland, L.A.**, Stevens, W.R., Loewen, A.M., Jo, C.H., Jeans, K.J. Squatting in Adolescents with Unilateral and Bilateral Hip Dysplasia. *Gait & Posture*. (Submitted 09/2023).

MANUSCRIPTS IN PREPARATION

Luginsland L.A., Haegele, J.A., Bennett H.J. Understanding Auditory and Tactile Responses in Persons with a Visual Impairment.

Luginsland L.A., Haegele, J.A., Bennett H.J. Understanding Kinematic and Kinetic Differences in Adolescent Siblings with Autism Spectrum Disorder.

Luginsland L.A., Zhu, X, Haegele, J.A. Investigating Falls, Physical Activity, and Health-Related Quality of Life across the Ages in Persons with a Visual Impairment.

INVITED LECTURES/PANELIST

Luginsland, L.A. (February 2024). *Gait 101: Understanding the Basics*.
Presented for the students of KHP 4496 – Exercise Science at Troy University.

Luginsland, L.A., Kruger, K.M., Tulchin-Francis, K., Wren, T.A.L. (November 2023). The Influence of Biomechanics Research on Clinical Care. Organized collaborative event between International Women in Biomechanics and Gait & Clinical Movement Analysis Society.

Luginsland, L.A., Davis, D.J., Leestma, J.K. (June 2023). Student Panel: Prepare for ASB Knoxville. Presented panelist for student members - American Society of Biomechanics.

Luginsland, L.A. (March 2023). *Understanding Gait and Balance Characteristics*.
Presented for the students of PET 3310 - Kinesiology at University of North Florida.

Luginsland, L.A. (September 2022). *Biomechanics Research across Various Disciplines*.

Presented for the students of KNPE 635 - Graduate Biomechanics at Northern Illinois University.

Luginsland, L.A. (January 2021). *Squatting Kinematics in Patients with Unilateral and Bilateral Acetabular Dysplasia*. Presented for Gait & Clinical Movement Analysis Society.

Luginsland, L.A., Loewen, A. (April 2020). *The Global Hip Study in the Movement Science Lab: Past, Present, Future*. Presented as part of the Pediatric Orthopedic Symposium for Nurses and Allied Health Care Professional at Scottish Rite for Children.

PUBLISHED CONFERENCE ABSTRACTS

Luginsland LA, Haegele, JA, Bennett HJ. Coordination Coupling: The Evaluation of Walking Coordination in Autistic Siblings. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 23-25 2023. International Journal of Exercise Science: Conference Proceedings: Vol. 16: Iss. 2, Article 255. (Poster)

Luginsland, LA, Haegele, JA, Bennett HJ. Lower Extremity Joint Stiffness During Running in Adolescents with Autism Spectrum Disorder. Gait & Clinical Movement Analysis Society Annual Conference, (Virtual), June 7-8 2022. (Poster)
https://doi.org/10.52141/gcmas2022_27

Luginsland, LA, Stevens, WR Jr., Tulchin-Francis, K. Functional Outcomes in Acetabular Hip Dysplasia Patients: A 10-Year Follow-up Study. Gait & Clinical Movement Analysis Society Annual Conference (Virtual), June 8-9 2021. (Podium)
https://doi.org/10.52141/gcmas2021_194

Luginsland, LA, Stevens, WR Jr., Tulchin-Francis, K. Temporospatial Parameters in Pediatric Hip Pathology Patients: Pre and Post Surgery. Gait & Clinical Movement Analysis Society Annual Conference (Virtual), June 8-9 2021. (Podium)
https://doi.org/10.52141/gcmas2021_195

CONFERENCE ABSTRACTS

Luginsland LA, Barrett KB, Bennett HJ. The Examination of Inertial Measurement Devices for Gait Analysis in Autistic Persons. American Society of Biomechanics (ASB) Annual Meeting, Madison, WI. August 5-8 2024. (Podium)

Luginsland LA, Barrett KB, Bennett HJ. Autism Spectrum Disorder and Gait Analysis: Can Inertial Measurement Units be the Solution? Gait & Clinical Movement Analysis Society (GCMAS) Annual Meeting, Atlanta, GA. June 17-18 2024. (Podium)

Luginsland LA, Barrett K, Bennett HJ. The Relationship between Postural Sway and Dynamic Reaction in Blind People using an Auditory Stimulus. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 22-24 2024. (Poster)

Luginsland LA, Barrett K, Haegele, JA, Bennett HJ. Understanding Dynamic Postural Reactions in Persons with a Visual Impairment. American Society of Biomechanics, Knoxville, TN. August 8-11 2023. (Poster)

- Barrett K, Parrish K, **Luginsland LA**, Bennett, HJ. Does Direction Matter? An Analysis of the Volleyball Attack. American Society of Biomechanics, Knoxville, TN. August 8-11 2023. (Poster)
- Anable N, **Luginsland LA**, Carlos, C Jr., Stevens, WR Jr. Investigating Pelvic Drop Gait Abnormality in Pre-Operative Hip Pathology Patients. Gait & Clinical Movement Analysis Society (GCMAS) Annual Meeting, High Point, SC. June 25-28 2023. (Podium)
- Luginsland LA**, Valenzuela, KA, Bittner, M, Young, A, Haegele, JA, Bennett HJ. Investigating Gait Variability in Siblings with Autism Spectrum Disorder. Gait & Clinical Movement Analysis Society (GCMAS) Annual Meeting, High Point, SC. June 25-28 2023. (Poster)
- Luginsland LA**, Haegele, JA, Bennett HJ. Coordination Coupling: The Evaluation of Walking Coordination in Autistic Siblings. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 23-25 2023. (Poster)
- Luginsland LA**, Bennett HJ, Haegele, JA. Autism Spectrum Disorder: Should We Be More Flexible in Our Running Assessments? North American Congress on Biomechanics (NACOB) Joint Meeting of Canadian Society of Biomechanics and American Society of Biomechanics, Ottawa, CAN. August 21-25 2022. (Poster)
- Luginsland LA**, Bennett HJ, Haegele, JA. Limb Asymmetry: Comparison of Adolescents with and without Autism Spectrum Disorder at Dual Running Speeds. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 17-19 2022. (Thematic Poster)
- Williams CC, Donahue PT, Wilson SJ, Mouser JG, Hill CM, **Luginsland LA**, Wade C, Garner JC. Examining Percent Activation Changes in Different Phases of the Swing in Collegiate Softball Players. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 17-19 2022. (Poster)
- Gdovin JR, Wade C, **Luginsland LA**, Williams CC, Galloway R, Garner JC. The Influence of Shoe and Cleat Type on Trunk and Pelvis Rotation in Youth Baseball Pitchers. American Society of Biomechanics (ASB) (Virtual), August 10-13 2021. (Poster)
- Luginsland LA**, Stevens WR, Tulchin-Francis K. Squatting Kinematics in Adolescent Acetabular Dysplasia Patients across various Squat Types. South Central American Society of Biomechanics Annual Meeting (Virtual), May 7 2021. (Podium)
- Stevens WR Jr., **Luginsland LA**, Podeszwa DA, Tulchin-Francis K. Subjectively Reported Hip Function and Activity Levels Weakly Correlate with Objective Temporospatial Parameters in Adolescent Patients Before and After Hip Preservation Surgery. Pediatric Orthopaedic Society of North America (POSNA) Annual Meeting, Dallas TX, May 12-15 2021. (E-Poster)
- Luginsland LA**, Stevens WR Jr., Tulchin-Francis K, Podeszwa DA. Trunk Position is an Important Factor during the Bilateral Squat in Adolescents with Symptomatic Acetabular Dysplasia. International Society for Hip Arthroscopy (Virtual), October 2020. (E-Poster)
- Luginsland LA**, Stevens WR Jr., Nijjar B, Tulchin-Francis K. Squatting Kinematics in Patients

with Unilateral and Bilateral Acetabular Hip Dysplasia. Gait & Clinical Movement Analysis Society Annual Conference, West Chester, PA, June 2-5 2020. (Podium)
*Conference cancelled due to COVID-19

Luginsland LA, Stevens WR Jr., Nijjar B, Tulchin-Francis K. Squatting Kinematics in Patients with Unilateral and Bilateral Acetabular Hip Dysplasia. South Central American Society of Biomechanics Annual Meeting, University of North Texas Health Science Center, Fort Worth, TX. March 27-28 2020. (Podium)
*Conference cancelled due to COVID-19

Luginsland LA, Loewen A, Stevens WR Jr., Daniel R, Tulchin-Francis K. Kinematic Changes Related to a Reduced Hip Abduction Impulse during Single Leg Stance. Gait & Clinical Movement Analysis Society Annual Conference, Frisco, TX. March 26-29 2019. (Poster)

Luginsland LA, Loewen A, Stevens WR Jr., Daniel R, Tulchin-Francis K. Kinematic Changes Related to a Reduced Hip Abduction Impulse during Single Leg Stance. South Central American Society of Biomechanics Annual Meeting, Texas Back Institute, Plano, TX. April 12-13 2019. (Podium)

Williams CC, Donahue PT, Wilson SJ, Mouser JG, Hill CM, **Luginsland LA**, Wade LC, Garner JC. Changes in Bat Swing Kinematics Across the Strike Zone in Collegiate Baseball Players. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 14-16 2019. (Poster)

Wilson SJ, Donahue PT, Williams CC, Hill CM, **Luginsland LA**, Waddell DE, Chander H, Garner JC. Lead Leg Recovery Responses Between Individuals Who Fall and Recover After an Unexpected Slip. 42nd American Society of Biomechanics (ASB) Annual Meeting, Rochester, MN, USA. August 8-11 2018. (Poster)

Garner JC, Donahue PT, Williams CC, Hill CM, **Luginsland LA**, Waddell DE, Chander H, Wilson SJ. Postural Control Measures Between Individuals Who Fall and Recover After an Unexpected Slip. 42nd American Society of Biomechanics (ASB) Annual Meeting, Rochester, MN, USA. August 8-11 2018. (Poster)

Hill CM, Wilson SJ, Mouser JG, Williams CC, **Luginsland LA**, Donahue PT, Chander H. Impact Of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. Mid-south Biomechanics Conference, Memphis TN. February 22-23 2018. (Poster)

Luginsland LA, Williams CC, Gdovin JR, Wilson SJ, Donahue PT, Hill CM, Eason JD, Yarbrough AL, Wade C, Garner JC. Changes in Bat Angle at Maximal Velocity in Collegiate Softball Players. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018. (Poster)

Hill CM, Wilson SJ, Mouser JG, Williams CC, **Luginsland LA**, Donahue PT, Chander H. Impact Of Repeated Balance Perturbations on Lower Extremity Mean Muscle Activity. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Chattanooga, TN. February 15-17 2018. (Poster)

Luginsland LA, Chander H, Wade C, Garner JC, Eason JD, Wilson SJ, Gdovin JR, Hill CM,

- Knight AC, Carruth D. Influence of Occupational Footwear on Muscle Activity during a Simulated Extended Time-Duration. American Society of Biomechanics (ASB) Annual Meeting, Boulder, CO. August 8-11 2017. (Poster)
- Wilson SJ, Chander H, Knight AC, Garner JC, Wade C, Gdovin JR, Hill CM, DeBusk H, **Luginsland LA**, Carruth D. Lower Extremity Kinematics in Military Footwear during Slip Events. American Society of Biomechanics (ASB) Annual Meeting, Boulder, CO. August 8-11 2017. (Poster)
- Hill CM, DeBusk H, Wilson SJ, Gdovin JR, Williams CC, **Luginsland LA**, Knight AC, Chander C. Influence of Military Type Footwear and Workload on Co-Contraction Index in Unilateral Static Balance. American Society of Biomechanics (ASB) Annual Meeting, Boulder, CO. August 8-11 2017. (Poster)
- Donahue PT, Jackson, PM, Wilson SJ, Gdovin JR, Williams CC, **Luginsland LA**, Hill CM, Studzinski DL, Guarascio JJ, Garner JC. Effect of Offseason Training on Countermovement Jump Velocity in Division I Football Athletes. NSCA Annual Meeting, Las Vegas, NV. July 12-15 2017. National Strength and Conditioning Association. (Poster)
- Wilson SJ, Gdovin JR, Williams CC, Eason JD, **Luginsland LA**, Hill CM, Donahue PT, Hoke EL, Chander H, Garner JC. More Than a Foot Wedge – Golf Footwear and Postural Control. NSCA Annual Meeting, Las Vegas, NV. July 12-15 2017. National Strength and Conditioning Association. (Poster)
- Williams CC, Gdovin JR, Wilson SJ, Hill CM, **Luginsland LA**, Eason JD, Smidebush MM, Yarbrough AL, Wade C, Garner JC. Changes in Swing Kinematics in Collegiate Softball Players over a Fall Softball Season. NSCA Annual Meeting, Las Vegas, NV. July 12-15 2017. National Strength and Conditioning Association. (Poster)
- Luginsland LA**, Wilson SJ, Gdovin JR, Williams CC, Eason JD, Hoke EL, Hill CM, Donahue PT, Chander H, Wade C, Garner JC. The Acute Influence of Golf Specific Footwear on Balance Equilibrium Scores. Southeast Chapter of the American College of Sports Medicine (SEACSM) Annual Meeting, Greenville, SC. February 16-18 2017. (Poster)
- Luginsland LA**, Breloff SP. Influence of a Knee Brace on Ipsilateral Hip Kinematics of Various Slopes. American Society of Biomechanics (ASB) Annual Meeting, Raleigh, NC. August 2-5 2016. (Poster)

RESEARCH GRANTS (FUNDED)

Internal

2022 Old Dominion University Center for Movement, Health, & Disability | Graduate Student Research Award | \$500

External

2020 Funding Agency: National Association of Kinesiology in Higher Education: NAKHE Hellison Interdisciplinary Research Grant
Project Title: An Interdisciplinary Investigation into the Movement of Individuals with Visual Impairment Perspectives from Adapted Physical Activity & Biomechanics
Amount: \$5,000

- Role: Graduate Student Researcher (PI: Justin Haegele; Old Dominion University)
- 2020 Funding Agency: American Association for the Advancement of Science (AAAS) IF/THEN
Project Title: “Adaptation of the STEM-RITE Outreach Program for Virtual Environments and Mobile Demonstrations”
Requested Amount: \$10,000
Role: Instructor (PI: Kirsten Tulchin-Francis; Scottish Rite for Children)

GRANTS APPLIED FOR (NOT FUNDED)

- 2022 Funding Agency: Autism Science Foundation
Project Title: “The Transformation of Biomechanics Data Collection Protocols: Establishing Autism-Specific Guidelines alongside Persons with Autism”
Requested Amount: \$35,000
Role: Primary Investigator
- 2022 Funding Agency: Labfront/PhysioQ
Project Title: “Physical Activity in Autistic Youth: Implications of Scholastic and Summer Data Collections?”
Requested Amount: \$1,000
Role: Primary Investigator
- 2022 Funding Agency: Old Dominion University Graduate School
Project Title: “Walking Patterns in Persons with Autism Spectrum Disorder: A Systematic Review”
Requested Amount: \$3,000
Role: Primary Investigator
- 2022 Funding Agency: The Organization for Autism Research (OAR)
Project Title: “Centering Autistic Adults’ Voices to Co-Construct and Pilot Biomechanics Data Collection Guidelines”
Requested Amount: \$40,000
Role: Graduate Student Researcher (PI: Justin A. Haegele; Old Dominion University)
- 2021 Funding Agency: De Luca Foundation – Rethink EMG Challenge
Project Title: “Is Neuromuscular Effort a Barrier to Engagement in Physical Activity for Individuals with Autism?”
Requested Amount: \$30,000
Role: Co-Investigator (PI: Hunter J. Bennett; Old Dominion University)
- 2021 Funding Agency: Autism Intervention Research Network on Physical Health
Project Title: “The Age of Divergence: When Do Autistic Persons Exhibit Unique Motor Control Patterns, but Stray from Physical Activity?”
Requested Amount: \$34,065
Role: Primary Investigator

HONORS/AWARDS

- 2023 Gait & Clinical Movement Analysis Society (GCMAS) | Travel Award | \$425
- 2022 American Society of Biomechanics Student | Travel Award | \$350
- 2022 AMTI Force and Motion Foundation | Travel Scholarship | \$1,000
- 2022 Old Dominion University Graduate Research Achievement Day Poster Competition | 2nd Place
- 2016 Awardee | University of Scranton | 16th Annual Celebration of Student Scholars

MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS

- 2021-present Member | American Society of Biomechanics (ASB)
- 2021 Member | Southeast American College of Sports Medicine (SEACSM)
- 2018-present Member | Gait & Clinical Movement Society (GCMAS)
- 2017 – 2018 Member | Gamma Beta Phi Honors Society | University of Mississippi Chapter
- 2016-2018 Member | Southeast American College of Sports Medicine (SEACSM)
- 2015-2017 Member | American Society of Biomechanics (ASB)

SERVICE

Offices and Committee Memberships Held in Professional Organizations

- 2023-present Monthly Meeting Coordinator & Bi-Annual Survey Assistant | International Women in Biomechanics, Inc. (IWB)
- 2022-present Student Representative | Gait & Clinical Movement Analysis Society (GCMAS)
- 2022-2024 Student Representative | Southeast American College of Sports Medicine (SEACSM) Biomechanics Interest Group
- 2022-2023 Student Leadership Committee | American Society of Biomechanics (ASB)
- 2022-2023 President & Founding Member | American Society of Biomechanics (ASB) Chapter at Old Dominion University

College/University Activities

- 2022 Volunteer | Mighty Monarchs: Adapted Physical Activity Program | Encourage children with disabilities in to participate in sport/physical activity
- 2022 Panelist | Early Engineering Advantage Program for Women (EEAP) | Invited to discuss STEM and host lab tours for incoming female students in the engineering program at Old Dominion University
- 2022 Volunteer | Recreate, Educate, And Climb Higher (REACH) Diabetes Tween Monthly Program | Mentor and camp leader for community-based program focused on health promotion & encourage physical activity in youth with Type 1 diabetes
- 2018 Undergraduate Group Advisor for Department of Health, Exercise Science, and

Recreation Management at University of Mississippi | Advise undergraduate students with scheduling of academic courses

Community Activities

- 2023 Event Co-Host | National Biomechanics Day | Old Dominion University Neuromechanics Lab
- 2023 Volunteer | Science Fair Judge | Larchmont Elementary | Norfolk, VA
- 2022 Conference Insider | North American Congress of Biomechanics | Invited mentor to first time attendees
- 2019-2021 Volunteer | The Legacy Scholarship | Scottish Rite for Children | Mentor former patients during their first year of college
- 2019 Volunteer | The Links STEM Academy Event | Educate students about the field of biomechanics and orthopedics through interactive courses
- 2019 Event Co-Host | National Biomechanics Day | Scottish Rite for Children Movement Science Lab
- 2018 Volunteer | Perry Initiative Program | Scottish Rite Hospital for Children
- 2017 Event Host | National Biomechanics Day | University of Mississippi Applied Biomechanics Lab
- 2017 Volunteer | Science Fair Judge | Oxford Intermediate School | Oxford, MS
- 2016 Event Co-Host | University of Success Program | University of Scranton Human Ergonomics Movement Laboratory | Introduce biomechanics to enrolled first-generation college students
- 2016 Event Co-Host | National Biomechanics Day | University of Scranton Human Ergonomics Movement Laboratory

Journal Reviewer

International Journal of Athletic Therapy & Training (2021)

RESEARCH INTERESTS

- Autism Spectrum Disorder: evaluation of movement patterns, implications in physical activity and sport
- Visual Impairments: balance and falls
- Clinical Analysis: pathology & movement patterns
- Sports Performance: athletic maneuvers & running

TECHNIQUES/SKILLS

Biomechanical Analysis Equipment/Tools:

- VICON Motion Capture Software: Nexus & Polygon
- AMTI Forceplates (Advanced Mechanical Technology, Inc., Watertown MA, USA)
- Bertec Forceplates (Bertec Inc., Columbus OH, USA)
- Delsys Trigno Wireless EMG system (Delsys Inc., Natick, MA, USA)
- Protokinetics Zeno Walkway (ProtoKinetics LLC., Havertown, PA, USA)

- MatLab (The MathWorks, Inc., Natick, MA, USA)
 - Ability to execute code, troubleshoot errors, modify pre-existing code
- EMG Motion Labs System (Motion Labs Inc., Baton Rouge, LA, USA)
- Novel® Pedobarograph Plantar Pressure Plate (Novel Inc., St. Paul, MN, USA)
- Motion Analysis system with Cortex version 3.6 Motion Capture system (Motion Analysis Corporation, Santa Rosa CA, USA)
- Wireless EMG System (Noraxon, Scottsdale AZ, USA)
- Biodex System 3/4 (Biodex Medical Systems Inc., Shirley, NY, USA)
- Neurocom® Equitest
- K4B² Oxygen Consumption System
- REDCap Software (Research Electronic Data Capture, Vanderbilt University, USA)
- EPIC Electronic Medical Record Software (Epic Systems Corporation, Verona, WI, USA)