



ANNUAL REPORT 2024

AMERICAN SOCIETY OF BIOMECHANICS

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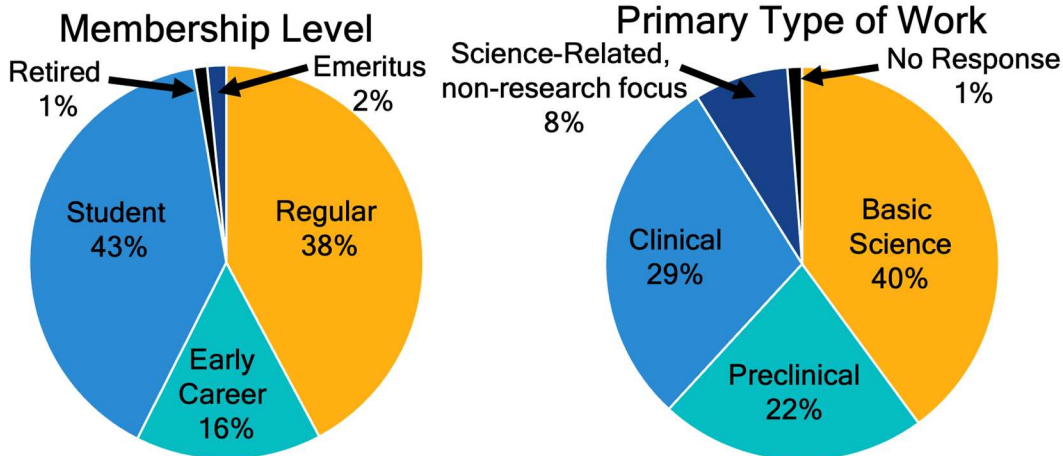
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**THE MISSION OF THE AMERICAN SOCIETY OF BIOMECHANICS (ASB)
IS TO FOSTER THE ADVANCEMENT, COMMUNICATION, AND
APPLICATION OF BIOMECHANICS TO BENEFIT SOCIETY.**

MEMBERSHIP REPORT

In 2024, ASB offered Regular, Early Career, Student, and a new Retiree membership rate for individuals who have retired from professional employment. We continue to have select Emeritus members, which is a status granted by the Executive Board to long-standing members who made substantial contributions to ASB. We are continuing to track recruitment and retention to help ASB focus future efforts in these areas. From 2023 to 2024, we retained 815 of our 1,223 members from last year* (579 regular, 236 students, 21 students who switched to regular members, and 3 who did the reverse). While 395 members from 2023 did not renew in 2024 (182 regular, 213 students), we also had 134 former members rejoin ASB after a gap in their membership (103 regular, 31 students). An additional 408 new members (106 regular, 302 student) joined last year, so ultimately, we saw a net 14% membership increase in 2024 (1,223 members*). This year we also launched our new Disciplinary categories and have shared the primary type of work our members have said they do. **Emeritus Members are not included.*

1,242 Members in 2024



Demographics

Race	Percent
American Indian or Alaska Native	<1%
Asian	17%
Black/African American	5%
Native Hawaiian/Other Pacific Islander	<1%
Middle Eastern or North African	4%
White	63%
Other	3%
Don't Wish to Answer/Blank	7%

Ethnicity	Percent
Not Hispanic or Latino	85%
Hispanic or Latino	7%
Don't Wish to Answer/Blank	7%

Gender	Percent
Man	55%
Woman	44%
Non-Binary	<1%
Don't Wish to Answer/Blank	1%

Disability Status	Percent
No	92%
Yes	3%
Don't Wish to Answer/Blank	4%

*Numbers may not add to 100% due to rounding

FINANCIAL REPORT

Summary:

This year we saw an increase in membership and revenue from the annual meeting. Over \$100,000 was provided in awards, grants and comped conference registrations, highlighting the society's continued support of our members. The annual meeting was a large success and ASB ended 2024 in a strong financial position ready to continue to give back to our membership. We continue to be grateful for the support of ASB from external partners of our society.

Looking forward:

In 2025, we look forward to supporting 5 ASB Regional Meetings. Additionally, we will continue to support the work of the Development Committee and other strategic financial initiatives that will ensure ASB's continued success in fostering the growth of the biomechanics community for years to come!

REVENUE JAN-DEC 2024	Budget	Actual
Membership	\$ 91,050.00	\$ 99,770.00
Donations	\$ 8,800.00	\$ 34,832.00
External	\$ 5,000.00	\$ 29,000.00
Member	\$ 3,800.00	\$ 5,832.00
Journal Subscriptions†	\$ -	\$ 3,745.00
Annual Meeting	\$ 558,012.94	\$ 618,666.50
Registrations (incl banquet)**	\$ 407,605.94	\$ 454,091.50
Grants	\$ 41,250.00	\$ 37,250.00
Sponsors & Exhibit Fees	\$ 85,500.00	\$ 125,825.00
Hotel Commission	\$ 23,657.00	\$ 1,500.00
Corporate Partnerships	\$ 17,800.00	\$ 19,000.00
Other		\$ 17,087.93
PNC Money Market Interest	\$ -	\$ 16,907.01
Other	\$ -	\$ 180.92
TOTAL REVENUE	\$ 675,662.94	\$ 793,101.43

ASSETS DECEMBER 2024	
Podium Operating Account	\$ 21,865.54
ASB Checking Account	\$ 59,114.73
ASB Money Market	\$ 275,907.01
Investment Account	\$ 562,102.92
Accounts Receivable + Prepayment	\$ 37,704.06
Accounts Payable	\$ (10,909.74)
TOTAL ASSETS	\$ 945,784.52

EXPENSES JAN-DEC 2024	Budget	Actual
Boards & Committees	\$ 22,093.13	\$ 16,617.80
Marketing Communications*	\$ 4,870.00	\$ 2,955.41
Journal Subscriptions	\$ -	\$ 4,019.00
Awards & Grants	\$ 92,861.00	\$ 83,922.86
B-SURE, GIA, Regional Meetings	\$ 52,311.00	\$ 56,000.00
Conference Awards and Grants**	\$ 40,550.00	\$ 27,922.86
Annual Meeting	\$ 458,757.87	\$ 430,755.56
Annual Meeting Delivery Podium	\$ 76,932.50	\$ 78,966.28
Program	\$ 25,468.75	\$ 27,480.17
Facilities & On-site Support/Services†	\$ 95,081.00	\$ 55,625.55
Sponsors, Exhibits & Posters	\$ 12,415.00	\$ 10,259.22
Registration	\$ 12,375.00	\$ 17,470.29
Entertainment	\$ 1,500.00	\$ 1,350.00
Food & Beverage	\$ 234,235.62	\$ 239,604.05
Other	\$ 750.00	\$ -
Administrative	\$ 68,436.18	\$ 75,928.51
Secretariat (Podium)	\$ 39,007.50	\$ 39,007.50
General Society Admin Expenses	\$ 10,710.00	\$ 15,752.21
Membership	\$ 2,300.00	\$ 1,338.28
Payment Processing	\$ 13,918.68	\$ 19,830.52
Corporate Partnership	\$ 2,500.00	\$ -
TOTAL	\$ 647,018.18	\$ 614,199.14

*Includes Annual Meeting communications

**Some travel awards are no longer "distributed" and are deducted directly from the registration profit in the form of a free registration code. This will be shown on the revenue line but not reflected in the actual expense line. ESTIMATED VALUE for 2024 is \$23,400.

† Journal subscriptions are a pass through

ANNUAL MEETING REPORT

Overview

- 127 abstract reviewers for over 870 submissions of posters, orals, symposia, and workshops
- 7 pre-meeting workshops and tutorials
- 34 concurrent podium sessions comprised of contributed oral talks, symposia, and award sessions as well as eight thematic poster sessions
- 2 poster sessions with different posters and dedicated poster presentation sessions each day
- 1 Participant research study - **Open dataset collection of normative video-based biomechanics on functional mobility**
- Continuing from 2023, a job market poster session for those seeking employment and those who will have openings in the near future
- Student led events including a first timer meet up at the beginning of the meeting, mentoring lunch, and student meet up evening
- Diversity lunch and Women in Science evening were very well attended

Keynote Talks

Advances in regenerative rehabilitation and the human performance alliance

Robert Guldberg, *University of Oregon*

Biomechanical interventions for knee osteoarthritis: Where we stand and how to accelerate research that yields high-quality evidence

Leena Sharma, *Northwestern University Feinberg School of Medicine*

Workshops

- WS1: Fundamentals of inertial measurement units (IMU's) for biomechanical data capture
- WS2: Developing a networking strategy for YOU: A how-to-network workshop for maximizing value of the American Society of Biomechanics Annual Meeting
- WS3: AI in the classroom An unseen force
- WS4: Federal funding for biomechanics research
- WS5: Re-examining "the way things have always been done" - a paradigm shift in conducting research with diverse populations
- WS6: (De)Form and function: A generalized technique for incorporating the mechanical power of deformable structures
- WS7: Recurrence quantification analysis for movement science

Symposia

- Perturbing our ideas on balance: Open questions in biomechanical stability and balance across scales
- Fiber type traps: Revisiting common misconceptions about skeletal muscle fiber types with application to motor control, biomechanics, physiology, and biology
- Can machine learning reveal the next generation of neural and biomechanical processes governing human movement?
- Non-linear analysis of gait: Translating from the lab to clinical relevance
- Examining how and why we investigate muscle stiffness across scales and domains of biomechanics
- Biomechanists thriving in medical environments

Participant Research Study

Open dataset collection of normative video-based biomechanics on functional mobility

Contributed Sessions

Podium Session	Moderator(s)
Ortho 1: Spine	Sara Arena, Alexa Johnson
Sports 1: Landing and Cutting	Jazmin Cruz, Molly Shephard
Ortho 2: Tendon	April McPherson, Eric Honert
AI and ML 1: AI and ML	Daniel Ludvig, Scott Uhlrich
Balance and Falls 1: Vision and Attention in Balance	Corbin Rasmussen, Peter Fino
Locomotion and Aging 1: Military and Veteran's Health	Carolyn Curtze, Monica Daley
Movement and Rehab 1: Head, Armons, and Trunk Rehab	Andrew Karduna, Emily McCain
Muscle Mechanics 1	Benjamin Binder-Markey, Ridhi Sahani
Ortho 3: Foot and Ankle	Danny Davis, Karen Kruger
Sports 2: Running	Marni Wasserman, Scott Crawford
Assistive Tech 1: Exos and Wearables	Kristen Jakubowski, Anne Martin
AI/ML2: Wearables and IoT	James Cotton, Michael Rosenberg
Balance and Falls 2: Slips and Trips	James Finley, Ashley Collimore
Locomotion and Aging 2: Sex differences	Allison Altman-Singles, Kim Bigelow
Modeling and Simulation 1	Amy Lenz, Jordan Sturdy
Movement and Rehabilitation 2: Connective Tissue	Benjamin Wheatley, Jocelyn Hafer
Muscle Mechanics 2	Denali Hutzelmann, Katherine Knaus
Ortho 4: Osteoarthritis and Gait	Michael Samaan, Kerry Costello

Assistive Tech 2: Assistive Devices	Alena Grabowski, Maria Ramon-Gonzalez
Balance and Falls 3	Jacob Hinkel-Lipsker, Tiphane Raffegau
Locomotion and Aging 3: Aging, Fatigue, and Energy	Satyajit Ambike
Balance and Falls 4	Jessica Allen, Caitlin Banks
Locomotion and Aging 4: Neuromuscular Control	Brittany Heintz Walters, Anne Silverman

Thematic Poster Session	Moderator(s)
Clinical applications of musculoskeletal modeling	BJ Fregly, Brecca Gaffney
ACL	JJ Hannigan, Mikel Joachim
Assistive Tech and Robotics	Christina Lee, Andrew Sawers
Balance and Falls	Jason Franz, Francesca Wade
AI/ML	Stephen Cain, Jennifer Nichols
Running	Allison Gruber, Kristen Gruber
Individual Variation	Aaron Likens, Scott Monfort
Gait Rehabilitation	Jennifer Leetsma, Robert Catena

Annual Meeting Report

The 2024 Annual Meeting of the American Society of Biomechanics was held in Madison, Wisconsin at the Monona Terrace Community and Convention Center from August 5 - 8, 2024. The meeting was organized by conference chair, Peter Adamczyk, *University of Wisconsin-Madison*, with support from program chair, James Finley, *University of Southern California*.

The 2024 meeting had over 1000 delegates registered, with 986 in attendance in Madison, who participated in a variety of podium, symposia, and poster presentations. Approximately 74% of attendees were ASB members and almost 60% of ASB members attended the annual meeting. The program included multiple social events, including the well-attended Women in Science evening, multiple affinity/non-profit partner group gatherings and student focused events, in addition to a welcome reception, daily lunch and coffee breaks, two poster receptions, and the meeting banquet, allowing delegates to network and exchange in informal settings. Delegates also had the opportunity to participate in the onsite research study throughout the meeting days. Of the registered delegates, 44% were students and 74% were ASB regular or student members.

There were 29 on-site exhibitors and sponsors covering the full gamut of services and technologies relevant and applicable to the field of biomechanics. Sponsored events/expenses included support of the Women in Science evening, meeting lanyards, the morning run, student night out event, keynote speaker talks, lunches and daily coffee breaks. Additional financial support was provided by NIH through a R-13 grant and NSF through a conference grant. These grants supported the travel awards program, new PI registrations, and a workshop. The travel awards program provided financial support to 51 students/individuals from underrepresented groups. Implementation of the award included partnerships between the University of Wisconsin-Madison, University of Pittsburgh and ASB to manage and distribute the awards.

Following the meeting, a post-meeting survey was sent to all attendees. A total of 242 attendees completed the survey with 92% of respondents indicating they would recommend the meeting to a colleague, collaborator, or student. Of the PIs who responded to the survey, almost 65% brought one or more students or post-doctoral fellows to the meeting, helping to ensure the continued success and future of the American Society of Biomechanics and the field of biomechanics. In addition to the importance of senior members of the community attending the meeting with their students, is the continued support of the society and the meeting of returning community members and new participants of the meeting. Almost 45% of the survey respondents have attended an ASB meeting five or more times and just under 30% indicated they attended ASB 2024 for the first time. Highlights of the meeting, as noted by the respondents, include the poster and thematic poster sessions, the award sessions, the scientific quality of presentations, and the opportunities for networking with others in the field. Further information regarding the sessions, award winners and more can be found in the archived program book on the website.

ASB 2024 AWARD AND GRANT WINNERS

Borelli Award: Antonie J. (Ton) van den Bogert, Cleveland State University

Antonie J. (Ton) van den Bogert is Professor Emeritus of Mechanical Engineering at Cleveland State University. Dr. van den Bogert earned a B.S./M.S. degree in Experimental Physics from the University of Utrecht in The Netherlands, and a PhD in Veterinary Sciences. After postdoctoral work in sports biomechanics with Dr. Benno Nigg, he held faculty positions at the University of Calgary (1993-1998) and the Lerner Research Institute at the Cleveland Clinic (1998-2010). From 2012 to 2023, he was the Parker-Hannifin Endowed Chair in Human Motion and Control at Cleveland State University. He has worked as an industry consultant since 1996, in the fields of motion capture, rehabilitation, and sports equipment, and continues to do so.

Dr. van den Bogert's academic research has included locomotion in horses, sports injuries, joint replacement, and optimal control of human movement and assistive devices. He has made important contributions to techniques for analysis and computer simulation of human movement. Published work includes over 170 journal articles and book chapters, and six patents in rehabilitation technology. He has served as President of the International Society of Biomechanics, and since 1988 has been moderator of Biomch-L, an online discussion forum on human and animal movement science. Notable awards are the Technical Achievement Award from the Academy of Motion Picture Arts and Sciences (2005), and the Jim Hay Award for Sports Biomechanics from the American Society of Biomechanics (2020). He is a Fellow of the International Society of Biomechanics and a Fellow of the American Institute for Medical and Biological Engineering.

Jim Hay Memorial Award: Ronald F. Zernicke, University of Michigan

At the University of Michigan (UM), Ron Zernicke is Professor of Orthopaedic Surgery, with joint appointments in Kinesiology and Biomedical Engineering. He was Dean of the UM School of Kinesiology and is currently Co-Director of UM Human Performance & Sport Science Center. He was Executive Director of the Alberta Provincial Bone and Joint Health Institute, and at the University of Calgary, he was Wood Professor in Joint Injury Research in Cumming School of Medicine; Professor/Dean of Kinesiology; and Professor, Schulich School of Engineering.

After matriculating at Concordia University Chicago (BA) and University of Wisconsin-Madison (MS/PhD), he joined UCLA and was Professor/Department Chair of Kinesiology when he was recruited to Calgary. He received: UCLA Award for Distinguished Teaching, City of Calgary Community Achievement Award (Education), UCalgary Award for Outstanding Achievement in Graduate Supervision, and was Alumnus of the Year (Concordia University Chicago). He received an honorary DSc (Applied Health Sciences) from University of Waterloo.

He was elected President of the American (ASB), Canadian (CSB), and International (ISB) Societies of Biomechanics, and National Academy of Kinesiology, and Co-Chaired two ISB Congresses and 4th World Congress of Biomechanics. Research awards include: NASA (Cosmos Achievement Award), Society for Physical Regulation in Biology and Medicine (Yasuda Award for Outstanding Research Paper), ASB/ISB (Delsys Award), CSB (Career Award), CORS (Founder's Medal for Best Research), and CIHR (Partnership Award).

His career research support (>\$50 million) includes: Arthritis Society of Canada, Adidas, NBA/NBPA, Detroit Tigers, Canadian Space Agency, NASA, NSERC, CFI, CIHR, NSF, and NIH with his focus on exercise and sport related: (1) bone adaptation, (2) human movement dynamics and performance, and (3) joint injury and osteoarthritis.

Founders' Award: Katherine Saul, North Carolina State University

Dr. Saul is a Professor, University Faculty Scholar, and Associate Department Head of Mechanical and Aerospace Engineering at North Carolina State University in Raleigh, NC. Dr. Saul received her ScB in Engineering from Brown University, and her MS and PhD in Mechanical Engineering from Stanford University. She was previously interim Department Head of Forest Biomaterials at NC State in 2023, and an Assistant Professor of Biomedical Engineering and Orthopaedic Surgery at Wake Forest School of Medicine from 2007-2013. Dr. Saul held the position of UNC System Academic Affairs Faculty Fellow from 2019-2021 exploring digital learning initiatives and supporting the UNC System universities to convert to effective online instruction during the pandemic. She has served on the Executive Board of the American Society of Biomechanics as Meeting Chair, Diversity Task Force Chair, and Secretary, and as Associate Editor of the Journal of Applied Biomechanics and PLOS ONE.

The goal of Dr. Saul's research in the Movement Biomechanics Laboratory is to improve treatment for upper limb neuromusculoskeletal conditions by providing biomechanical insight

to clinicians regarding the effects of neuromuscular and orthopaedic injury and clinical interventions. She is a leader in developing computational models of the upper limb for rehabilitation engineering applications. She has been recognized as a Fellow of the American Institute for Medical and Biological Engineering and the American Society of Biomechanics, an Engineering Unleashed Fellow of the Kern Family Foundation, and an OpenSim Fellow of the National Center for Simulation in Rehabilitation Research. Other honors include American Society of Biomechanics Predoctoral Young Scientist (2005), Medtronic Foundation Graduate Fellow, Whitaker Foundation Graduate Fellow, NCAA Woman of the Year (Rhode Island, 2000), and Brown University Athletics Hall of Fame recipient. She has received the Outstanding Teaching Award at NCSU at the department, college, university, and Alumni Association levels and the Outstanding Graduate Mentor Award from the NCSU Graduate School.

Jean Landa Pytel Award: Wendy M Murray, Northwestern University

Dr. Wendy Murray is a Full Professor at Northwestern University in the Departments of Biomedical Engineering, Physical Medicine & Rehabilitation, and Physical Therapy & Human Movement Sciences. Her research group spans Northwestern University, Shirley Ryan AbilityLab, and the Edward Hines Jr., VA Hospital. As a part of a unique, long-standing collaboration between Northwestern and the Shirley Ryan AbilityLab, the first-ever translational rehabilitation research hospital, her lab is housed in clinical space in the hospital.

The foundation for Dr. Murray's work is the development of biomechanical models that accurately represent the mechanical actions of the upper extremity muscles. The main thrust of her current research is the application of these models to better understand and, ultimately, to help improve function of the disabled upper limb. The biomechanical models and corresponding anatomical databases that Dr. Murray has shared with the scientific community have been cited hundreds of times. In addition to the investigator-initiated award funding that has enabled her research program to thrive, the trainees in her program have been awarded support from NIH, NSF, Craig H. Neilsen Foundation, American Heart Association, De Luca Foundation, Foundation for Physical Therapy, American Society of Biomechanics, and International Society of Biomechanics.

Dr. Murray is an active citizen in the biomechanics community. Her lab serves as the central organizational hub for the National Biomechanics Day events celebrated by the Northwestern and AbilityLab communities and their efforts have been recognized with a "Greatest Impact

Award” twice. She has served as President of the American Society of Biomechanics, member-at-large of the Executive Board of the US National Committee on Biomechanics, and Member of the Editorial Committee of the Annual Review of Biomedical Engineering. She is a Fellow of the American Institute of Medical and Biological Engineering and the American Society of Biomechanics.

Goel Award: Silvia Blemker, University of Virginia

Silvia Salinas Blemker is the Robert Thomson Distinguished Professor of Biomedical Engineering at the University of Virginia. She received her BS and MS degrees in Biomedical Engineering from Northwestern University and her PhD in Mechanical Engineering from Stanford University. She is fascinated by skeletal muscle and physiology, and she leads the Multi-scale Muscle Mechanophysiology Lab, which develops multi-scale computational and experimental techniques to study skeletal muscle biomechanics and physiology. The lab explores a range of applications including speech disorders, vision impairments, aging, muscular dystrophies, and human performance. New projects include developing models that incorporate for sex-differences in musculoskeletal structure and simulating the effects of estrogen levels on muscle regeneration. Dr. Blemker is a co-founder and currently serves as Chief Science Officer at Springbok Analytics, a company commercializing image-based muscle analytics AI technology for a range of applications from muscle diseases to sports medicine. She is a fellow of the American Society of Biomechanics and the American Institute for Medical and Biological Engineers.

ASB Early Career Achievement Award: Lise Worthen-Chaudhari, The Ohio State University Medical Center

Lise Worthen-Chaudhari, PhD, MFA, MS, CMES connects biomechanics to practical healthcare solutions at The Ohio State University’s (OSU) Department of Physical Medicine and Rehabilitation (PM&R). Seeking to drive recovery for adults with neurotrauma and/or neurotoxicity, such as chemotherapy-induced neuropathy, Worthen-Chaudhari leverages her deep experience in both biomechanics and the arts to improve neurorehabilitation. She applies creatively engaged activity paradigms, such as partnered dance and interactive art, to stimulate the injured nervous system, evaluating effect through a combination of biomechanical, patient-reported, and clinical outcomes. Currently, her work is funded by the National Institute on Aging (NIA). Prior to earning her PhD, her work was funded by the Pelotonia Foundation, OSU

Chronic Brain Injury Discovery Theme initiative, OSU Department of PM&R, industry, and philanthropic sources.

A former contemporary dancer for Company Chaddick, SF, CA, currently Worthen-Chaudhari is an Assistant Professor in OSU's Department of PM&R. She is the Director of Dodd Hall's NeuroArtsRx Laboratory and a faculty affiliate of OSU's Cancer Control Program and Chronic Brain Injury Discovery Theme initiative. Worthen-Chaudhari has served in leadership roles for the American Society of Biomechanics (Program Committee) and The American College of Rehabilitation Medicine (founding member of the Arts & Neuroscience Networking group) and teaches within OSU's School of Health and Rehabilitation Sciences. She earned her Master of Science in Exercise Science from the University of Massachusetts at Amherst with advisor Prof. Joseph Hamill; Master of Fine Arts in Dance from The OSU with Prof. Michael Kelly Bruce; PhD in Health Sciences from The University of Warwick with Prof. E. Diane Playford; and her cancer Medical Exercise Specialist certification (CMES) through the American Council on Exercise (ACE). Worthen-Chaudhari has two children (Asha and Casey), two dogs (Goose and Buddy), and a very supportive spouse (Dr. Ajit Chaudhari).

ASB Pre-Doctoral Achievement Award: Jennifer K. Leestma, Georgia Institute of Technology

Jennifer Leestma is a Ph.D. Candidate in Robotics at the Georgia Institute of Technology, where she works with Dr. Aaron Young (EPIC Lab) and Dr. Greg Sawicki (PoWeR Lab). Her doctoral work focuses on the biomechanics and augmentation of locomotor stability using machine learning-driven control algorithms for robotic exoskeletons. Broadly, she's interested in how wearable robots can augment locomotion in complex and dynamic environments and how we can expand augmentation approaches to better integrate with the sensorimotor system.

Jenny's doctoral work has been funded by the National Science Foundation, both through an NSF Graduate Research Fellowship and NSF NRT ARMS Fellowship. Along with her Ph.D., she also completed Georgia Tech's Certificate in Teaching, which focuses on teaching and learning in higher education. She's passionate about mentoring and has been recognized with the Woodruff School of Mechanical Engineering's Fellowship for Commitment to Undergraduate Research. Previously, Jenny received her M.S. in Mechanical Engineering from the Georgia Institute of Technology and her B.S. in Biomedical Engineering from the University of Wisconsin-Madison.

Junior Faculty Research Award: Andrew D. Nordin, Texas A&M University

Dr. Andrew Nordin is an Assistant Professor at Texas A&M University in the Division of Kinesiology, with affiliations in the Department of Biomedical Engineering and Texas A&M Institute for Neuroscience. He completed undergraduate and graduate degrees in physics and kinesiology from Lakehead University, a doctoral degree concentrating in biomechanics from University of Nevada, Las Vegas, and postdoctoral training in human neuromechanics at the University of Michigan. Prior to joining Texas A&M University, Dr. Nordin was a Research Assistant Scientist in the Department of Biomedical Engineering at the University of Florida where he developed sensors and signal processing for cleaning high-density electroencephalography and electromyography during walking and running. Dr. Nordin's lab studies how sensory and motor processes interact to produce and modify human movement. Current projects in the lab are aimed understanding the effects of bodyweight unloading on human electrical brain and muscle dynamics during gait and balance, visually-guided walking in virtual and real-world environments, and lower limb spatial electrical muscle activity during locomotion.

Research Travel Grant: Chun-Kai Huang, The University of Kansas

Dr. Huang is an Assistant Professor in the Department of Physical Therapy, Rehabilitation Science, and Athletic Training at the University of Kansas Medical Center (KUMC). Bringing a wealth of expertise in biomechanics and physical therapy to his research endeavors, Dr. Huang's academic journey began with a focus on the impact of virtual reality technology on gait adjustment in patients with Diabetes Mellitus (DM) during his PhD studies in the University of Nebraska Medical Center, Omaha, NE. Building upon this foundation, Dr. Huang embarked on three years of postdoctoral training in the Madonna Rehabilitation Hospitals in Lincoln, NE, exploring the integration of virtual reality gaming with motor-assisted elliptical to understand its effects on engagement, physiological, and lower extremity biomechanical aspects in typically developing children.

With a commitment to making meaningful contributions to the lives and wellness of aging populations and patients with DM, Dr. Huang's long-term career goal is to become an independent investigator in human movement science, specializing in the neural mechanisms of cortical control that contributes to movement deficits.

Dr. Huang directs the Clinical Locomotion and Emerging Virtual Reality Lab (CLEVR) at KUMC. Driven by a passion for understanding the neuromechanisms underlying balance and gait abnormalities in aging populations and patients with DM, his current research focuses on analyzing postural control, gait, and lower extremity kinematics during quiet standing and overground walking using wearable sensors, virtual reality technology, and a force plate, with the ultimate goal of unraveling the relationship between the cortical control and movement deficits in this population.

Up and Comer Awards:

Caitlin Banks, Johns Hopkins University

Dr. Caitlin Banks is a postdoctoral fellow at the Kennedy Krieger Institute and Johns Hopkins University in Baltimore, MD. She received a Bachelor of Biomedical Engineering (BME) at the University of Delaware, an MS in BME at the University of Florida, and a PhD in BME at the University of California Davis. Her research focuses on walking, lower extremity sensorimotor function, and social determinants of health in people post-stroke. Dr. Banks is interested in continuing her career in clinical research and leading diverse teams that improve assessment and rehabilitation of individuals with gait impairment, particularly those from underrepresented groups and under-resourced communities.

Dr. Banks is a founding executive board member and the current treasurer of International Women in Biomechanics, Inc., a recently designated 501c3 nonprofit and ASB affiliate society working to create community and provide support for women and other underrepresented genders at all career levels in biomechanics. She is also a member of the Black Biomechanists Association Program Planning Committee. Dr. Banks has coordinated and moderated multiple events aimed at increasing diversity in biomechanics and engineering, including three ASB pre-conference workshops. As a half-Black woman with a disability in the biomechanics community, Dr. Banks is always aiming to cultivate spaces that foster diversity, accessibility, and inclusivity.

Kinyata J Cooper, University of Florida

Dr. Kinyata J. Cooper is currently a Post-Doctoral Associate in the Physical Therapy Department at the University of Florida. She obtained her PhD in Rehabilitation Science, with a concentration in movement science and disorders, from the Texas Tech University Health Sciences Center. Dr. Cooper's current research focuses on clinical biomechanics applied to upper extremity injuries and advanced imaging techniques to characterize rotator cuff muscle

performance. As a former Division 1 athlete, she is passionate about identifying injury mechanisms associated with musculoskeletal injuries, improving functional performance testing to determine return-to-sport, and restoring human performance for those recovering from injury. Ultimately, Dr. Cooper's research mission is to develop innovative strategies that optimize rehabilitation efficacy and improve return to sport/activity outcomes.

With a vision to lead a multi-disciplinary rehabilitation performance research laboratory at a Historically Black College or University, Dr. Cooper is committed to promoting diversity, equity, and inclusion in the biomechanics field. Through initiatives such as leading youth outreach events for National Biomechanics Day and serving on the organizing committee of the Black Biomechanist Association, Dr. Cooper advocates for broader representation, opportunities for future scientists of color, and better access for underrepresented communities traditionally overlooked in rehabilitative research and care.

Ashley Collimore, Boston University

Dr. Ashley Collimore is a postdoctoral researcher at Boston University in the Physical Therapy Department. Previously, she received her PhD in Rehabilitation Sciences from Boston University and a BSE in Mechanical Engineering and Applied Mechanics from the University of Pennsylvania. Her goals are to create and evaluate assistive and rehabilitative technologies that target walking for children with mobility impairments. Her current research is investigating motor development trajectories for infants with Down syndrome and the efficacy of a body-weight support harness that enables independent mobility and exploration for this population.

Dr. Collimore is also passionate about fostering inclusivity and supportive spaces for women in science. She currently serves as the secretary for the International Women in Biomechanics, has led numerous "Women in Science" workshops and panels, and recently collaborated on a National Biomechanics Day event tailored to middle-school girls. Outside of the laboratory, Ashley can be found advising the Boston University chapter of Alpha Delta Pi or spending time outdoors by hiking, running, or playing soccer.

Meeting Awards

Journal of Biomechanics Award

Recognizes substantive and conceptually novel mechanics approaches explaining how biological systems function.

Multidirectional assessment of the ligaments of the thumb carpometacarpal joint

Josephine M. Kalshoven, Rohit Badida, Amy M. Morton, Janine Molino, Arnold-Peter C. Weiss, Amy L. Ladd, Joseph J. Crisco

Clinical Biomechanics Award

Recognizes outstanding new biomechanics research targeting a contemporary clinical problem.

Muscle coordination retraining for individuals with knee osteoarthritis

Michelle Joyce, Julie Muccini, Benjamin Randoing, Scott Delp, Scott Uhlich

President's Choice Poster Award

Recognizes the best abstract/poster during Annual ASB Meeting.

Developing a visual-cognitive single-leg vertical jump test

Fatemeh Aflatounian, Kaylan Wait, Brendan Silvia, Alexandra Lynch, James Becker, Keith Hutchinson, Janet Simon, Dustin Grooms, Scott Montfort
Montana State University

Three-Minute Thesis (3MT) Graduate Student Competition

Winner: Jiyun Wendy Ahn, Georgia State University

Honorable Mention: Adam Chrzan, Michigan State University

ASB Faculty Scholars Award

Hafizur Rahman, University of Texas - Rio Grande Valley, Harlingen, TX

Portia Williams, Howard University, Washington, DC

Brandi Decoux, Southeastern Louisiana University, Hammond, LA

Omofolakunmi Olagbemi, Hope College, Holland, MI

Justin Berry, Northland Community and Technical College, East Grand Forks, MN

Babak Hejrati, University of Maine, Orono, ME

Student Travel Awards

Doctoral Students (22):

Fatemeh Aflatounian, Montana State University
 Gerard Aristizábal Pla, University of Pittsburgh
 Alexis Benoit, University of Florida
 Diane' Brown, Georgia State University
 Chelsey Campillo, Harvard University
 Tara Cornwell, University of Southern California
 Jarod Forer, University of Oregon
 Sarah Griffin, University of Pittsburgh
 Allison Haussler, Washington University in St. Louis
 Mikayla Hoyle, University of Illinois Urbana-Champaign
 Michelle Joyce, Stanford University
 Grace Kellaher, University of Delaware
 Tristan Mccarty, University of California, Riverside
 Michael Miller, Colorado School of Mines
 Jungsun Moon, University of Illinois at Urbana Champaign
 Samantha Price, Saint Louis University
 Neethan Ratnakumar, New Jersey Institute of Technology
 Kayla Seymore, University of Delaware
 Cassandra Shriver, Georgia Institute of Technology
 Steven Thompson, University of North Carolina at Chapel Hill
 Moaz Tobaigy, University of Illinois-Chicago
 Oscar Vila Dieguez, University of Southern California

Masters Students (4):

Jodi Motlagh, University of Michigan
 Xenia Schmitz, Northwestern University
 Amara Sharp, University of Kentucky
 Samantha Weiss, Virginia Tech

Undergraduate Students (4):

Benjamin Fagnoli, Emory University
 Anh Nguyen, University of North Carolina at Chapel Hill
 Jason Zhang, North Carolina State
 Wenxin Zhou, University of Michigan

Diversity Travel Award

Brooke M. Odle, Hope College

Jordan Barajas, Arizona State University

Bahman Adlou, Auburn University

Fany Alvarado, University of Delaware

Nicole Arnold, Center for Biomechanical & Rehabilitation Engineering

Jose G Anguiano-Hernandez, University of Utah

Kathy E. Reyes, Oregon State University

Regina Maria Vicente Tejada, Hope College

Vivian Mota, North Carolina State University

Jason Zhang, North Carolina State University

Joseph Ayotunde Aderonmu, University of Nebraska at Omaha

Chioma Ezeajughi, University of Maryland College Park

Felicia Davenport, Georgia Institute of Technology

Robyn Hansen, Virginia Tech University

Francis Fasuyi, University of Northern Colorado

Zoe Moore, Pennsylvania State University

Maliheh Fakhar, University of Maryland

Nancy Nguyen, University of Delaware

Daniel Duque Urrego, West Virginia University

Graduate Student Grant-In-Aid Program

Oscar Vila Dieguez (advisor: Lori Michener, University of Southern California) - The relationship of a neuromuscular and tendon tissue factors to patient recovery in rotator cuff tendinopathy: an 8-week clinical investigation

Grace Kellaher (advisor: Jeremy Crenshaw, University of Delaware) - Quantifying adapted balance control in chronic stroke

Jiyun Ahn (advisor: Feng Yang, Georgia State University) - Effects of body adipose distribution on fall risks and motor learning among older adults with obesity

Mohammed Alamri (advisor: Stephen Cobb, University of Wisconsin - Milwaukee) - Foot kinematics and lower extremity neuromuscular function in middle-aged patients with plantar heel pain

Kathy Reyes (advisor: JJ Hannigan, Oregon State University) - Effects of midsole cushioning and outsole traction on ankle kinematics during downhill trail running

ASB Supported National Biomechanics Day Awards

Caleb Cordes, University of Wisconsin-Milwaukee

Jorie Budzikowski, Northwestern University

B-SURE Program

Rebecca Go, Stevenson University

Elena Schell, University of Massachusetts Amherst

Emily Borroni, The University of Mount Union

Jonathan Prescott, Stevenson University

Rubben Jermone, Hope College

President's Service Award

Ana Ebrahimi

2024 ASB REGIONAL MEETINGS

Rocky Mountain ASB - Estes Park, CO

Chair: Kota Takahashi

South Central ASB - Fort Worth, TX

Chair: Adam King

Northeast ASB - Rochester, NY

Chair: Ram Haddas

Northwest Biomechanics Symposium - Eugene, OR

Chair: Andy Karduna

Great Plains Biomechanics Symposium - Omaha, NE

Chair: Phillippe Malcome

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ASB Executive Board 2023-2024 - 48th Annual Meeting (2024) - Madison, WI

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Newsletter Editor	Cara L. Lewis
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Diversity Chair	Christopher Wilburn
Awards Chair	David B. Lipps

ASB Executive Board 2024-2025 - 49th Annual Meeting (2025) - Pittsburgh, PA

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Education Chair	Allison Altman-Singles
Communications Committee Chair	Evan Dooley
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Student Representative	Paula Kramer
Diversity Chair	Christopher Wilburn
Awards Chair	David B. Lipps

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Vice Chair	Stacie Ringleb
Secretary	Chris Hass

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 Cendrine De Vis, Podium Conferences
 Tori Lunden, Podium Conferences
 Sebastien Lavoie, Podium Conferences
 Rita Assabgui, Podium Conferences
 Hunter Fraser, Podium Conferences

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 Kimberly Bigelow (Member)
 Brian Davis (Member)
 Max Diaz (Member)
 Virginia Liang (Member)
 Hugo Giambini (Member)
 Clare Milner (Member)
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 Ajit Chaudhari
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 Darren Dutto
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 Daniel Ferris
 Peter Fino
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 Braden Fleming
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 Deanna Gates
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 Omid Jahanian
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 Kornelia Kulig
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 Tim Reissman
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 Divya Srinivasan
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 He Wang
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 Lise Worthen-Chaudhari
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 Songning Zhang
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 Ana Ebrahimi
 Mojtaba Mohasel
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 Response Team for Code of
 Conduct violation reporting*

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 Russel Johnson
 Claire Milner
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THANK YOU!