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In this issue

From the President	1
Student's Corner	2
Secretary/Membership	4
Treasurer	5
Education Committee	6
Awards Chair	8
Meeting Chair	16
Nat. Biomechanics Day	18
Program Chair	20
Communications Chair	21
President-elect	22
Diversity Committee	23
Umbrellas are for Tourists	24
Past President	25

Newsletter

Volume: 33 - Number: 1, June 2020

From the President

Michelle Sabick



In February, the ASB Executive Board met in Atlanta to see the 2020 conference venue and finalize many details of the conference planning. It seemed perfectly natural to fly to Atlanta for that two-day meeting and fly home—but that was in February.

I know you have all lived this, but here are a few of the changes that we have all endured since that time:

- The COVID-19 outbreak exploded in the US killing over 140,000 people.
- Nearly every business entity shut down or required employees to work from home, or both.
- Most companies and universities abruptly canceled all spring and early summer travel.
- Stay-at-home orders were instituted in many states and municipalities.
- Universities and K-12 institutions closed abruptly, forcing many faculty members and teachers to pivot to remote teaching with only a few days' notice.
- Many individuals were forced to support family members attending school from home while they simultaneously tried to work from home.
- Many other working people lost jobs due to business closures and the economic effects of the stay-at-home orders.
- The brutal killing of George Floyd by police officers was captured on video, leading to widespread protests and calls for immediate action to address systemic racism.
- The 2020 ASB National Conference scheduled for early August in Atlanta was converted to a virtual meeting, the first of its kind for our Society.
- Quick re-openings in many states and a lack of widespread testing led to a resurgence of COVID-19 that threatens to result in a new round of closures.
- Educational institutions, both universities and K-12, have been forced to grapple with incredible uncertainty about reopening in the fall, as safety and security of students and faculty are balanced with the need to ensure quality learning experiences and the desire to “get back to normal”.

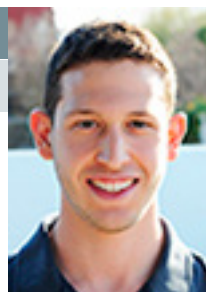
When you look at this list, it is clear just what types of upheaval we have all experienced in the past few months. It is also clear just how trivial—in the big scheme of things—the changes to the format of the 2020 ASB Annual Meeting (now [vASB 2020](#)) are, even though it is a big change for ASB.

Continued on page 3...

Student's Corner

Andrew Vigotsky

Greetings from lockdown! I hope everyone is staying safe and healthy. Although this year's meeting is a virtual one, I am still very much looking forward to all of the student and post doc events we have organized.



First, we have two professional development virtual roundtables planned. The first is similar to that which has been hosted in previous years; specifically, it will focus on professional development for jobs in academia. Students will be able to ask faculty members and post docs for advice in areas ranging from applying to post doc positions to the differences between research- and teaching-focused positions. The second, co-hosted by Megan Toney-Bolger, will focus on careers outside of traditional academia, including positions in government, industry, and clinical environments. Importantly, these sessions do not overlap, so students who wish to explore both paths will have the opportunity to do so. Finally, because this year's conference is virtual, there will be ample "space" at each roundtable.

Second, the virtual format of this year's meeting has no bearing on the student mentoring event. Like last year, we will distribute a survey in mid-July to facilitate the matching process, and students and mentors will be contacted. Each student can then contact their mentor to schedule a time and medium for their meeting.

Third, we will still be having a Student Night 'Out', during which students will be able to network with one another in a more casual environment. Thankfully, Jenny Leestma will be assisting us in running this event, who has much experience from hosting similar events over the course of lockdown.

Fourth, thanks to Ana Ebrahimi, there will be an event specifically for post docs. This event will focus on everything from finding a position in academia, including the interview process, to settling in as a new professor. I'd like to thank Ana for taking the initiative on this, as it is certainly high time that post docs receive focused professional development in ASB.

Finally, as we approach the 2020 meeting, my tenure as the ASB Student Representative is coming to an end. It has been a pleasure and an honor to serve the Society. I believe we have accomplished much in the last two years, including the development of ASB Student Chapters, increasing professional development opportunities, and streamlining meeting event planning. I could not have accomplished any of this without the excellent student committee framework that Katie Knaus, the past-Student Representative, constructed. To this end, I am especially grateful to those who have served on the student committee, including: Anthony Anderson, Melissa Boswell (ISB), Erica Casto, Teresa Chen, Billy Clark, Emily Dooley, Patrick Fischer, Rebekah Koehn, Daniel Kuhman, Jenny Leestma, Todd Leutzinger, Gregory McClanahan, Jonaz Moreno, Ken Okoye, Ricky Pimentel, Nataliya Rokhmanova, Megan Smidebush, Kate Spitzley, Kyle Wasserberger, Lara Weed, and Jess Zendler. Starting in August, Emily Dooley, who has been an invaluable Student Committee member, will begin her tenure; I am very much looking forward to seeing what she accomplishes over the next couple of years!



ASB Involvement

If you are interested in VOLUNTEERING with ASB, contact the Communications Committee Chair ([Tarang Jain](#)) with the following information (1) NAME, (2) CONTACT INFORMATION, (3) ASB discipline, (4) research area and (5) how you would like to get involved (e.g., conference abstract review, awards committee, grant application review, student committee, another executive board committee, etc...).



Back Copies of the Newsletter

All previous ASB newsletters have been converted into pdf documents and are archived on the [ASB website](#).

President Michelle Sabick

While I am sure many of you were looking forward to seeing friends and colleagues in person, I strongly encourage you to attend the meeting in its new format. I think you will find the same great science, the same excellent keynotes, the same compelling dialogue, and the same comradery that we have always had—and you can do it from the comfort of your own home (even in your pajamas, if you so desire). I am also hopeful that the very competitive registration fee and the flexible format will allow many more people to participate in vASB 2020 than would have been able to join us in person in Atlanta next month. In a time where very little is certain, I look forward to attending my favorite conference of the year in this new way.

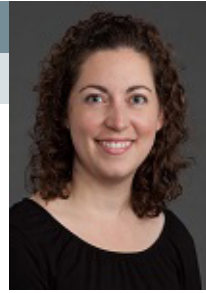
While I am greatly looking forward to our meeting this year, in my column last December I promised to update you in this newsletter on a number of initiatives that the Executive Board has been working on to enhance the robustness and stability of the society. Many of these will be discussed at length in other parts of the Newsletter, but I will mention some of them here to make it clear just how hard your all-volunteer Executive Board and ASB committees have been working for you, even in this time of disruption and uncertainty. Below is a partial list, along with the names of the people who deserve to be thanked for leading these initiatives:

- The new ASB Strategic Plan was approved by the membership, and provides a new roadmap for the Society moving forward—Brian Umberger, Wendy Murray
- Student chapters of ASB are being piloted on a limited number of campuses this year—Andrew Visotsky
- The ASB Code of Conduct has been created and approved and will be implemented for vASB 2020—Robin Queen, Ajit Chaudhari
- The ASB Fellows approved a set of Bylaws and elected a great slate of officers to guide their activities—Bob Gregor
- The Executive Board position of Awards Chair was successfully piloted and will lead to a proposed change to the ASB Bylaws—Brian Umberger, Missy Morrow
- Corporate conference and society management options have been investigated and negotiations are underway to contract services—Nick Stergiou

Please join me in thanking all these leaders, as well as all the other members of the Executive Board and the very active committees who have done such great work. While recent events have challenged us in many ways, I am proud to report that the American Society of Biomechanics keeps moving forward to enhance our services and support our members. Please keep safe and healthy, and I look forward to seeing you all virtually next month.

Secretary/Membership

Katherine Saul



Thank you to the society membership for another great year. The [membership portal](#) is working well, and we continue to add features to make the member experience better and provide more accurate and detailed records for the society. As a reminder, in the portal, you can pay dues, buy journal subscriptions, donate to the award funds, and search the membership directory. We have added features to view your current **member status** (student or regular; expiration) under **My Member Status**. You will generally need to provide a screen shot of this page along with your member number (in **Member Details**) when sponsoring new members or applying for awards. If you are not sure if you paid your dues, check your **Past Orders** or **Member Status** to see if you are up to date. If you are changing from student level to regular level, do not reapply. Simply change your status when you pay your dues. Please sign up to **volunteer** if you'd like to be more involved. You will find the volunteer form on the portal, and we use these lists to identify potential new committee members or executive board candidates.

In an effort to improve our record keeping, we have added new flags in the database to identify fellows, and past and current executive board members. We are also using the volunteer records to keep track of all the service provided by the membership. These are now updated as a part of a year-end database closeout to ensure more accurate records going forward to understand society membership. As a part of this effort, we are more rigorously recording and reporting membership numbers and demographics, including setting an annual census date, recording annual membership breakdown, and publishing demographic information on the society webpage. In the past, data regarding membership type and discipline have been reported in the annual newsletter, and more recently demographic information has been reported. However, going forward we would like these data to be more accessible to the membership. The latest 2020 data are included below. As noted in our recent statement regarding systemic racism, our membership does not represent the demographics of the US. In the coming year, I look forward to working with the Diversity Committee to create links with other science organizations that support individuals from under-represented backgrounds such as the National Society of Black Engineers and the Society of Hispanic Professional Engineers to learn from their groups and engage more scientists from under-represented backgrounds. I will also provide support to the other members of the executive board as we work to enact the goals of the strategic plan and specifically those activities designed to engage our members from under-represented groups.

Membership category: Regular - 61.8%; Student - 36.5%; Emeritus - 1.6% | **Discipline:** Biological sciences - 5.5%; Engineering and Applied Physics - 44.4%; Ergonomics and Human Factors - 4.5%; Exercise and Sports Science - 25.5%; Health Sciences - 20.1% | **Demographics - Sex:** Men - 57.9%; Women - 40.2%; Don't wish to answer - 1.8% | **Ethnicity:** Hispanic - 5.5%; Not Hispanic - 89.5%; Don't wish to answer - 4.8% | **Race:** Am Indian/Alaska Native - 0.4%; Asian - 13.7%; Black - 3.6%; Native Hawaiian/Other Pac Islander - 0.4%; White - 78.0%; Other - 1.6%; Don't wish to answer - 4.1% | **Disability:** Yes - 1.2%; No - 94.8%; Don't wish to answer - 2.9%

Please feel free to reach out if you have any feedback on the membership portal.



Editorial Board

Editor & Layout

William Ledoux

wrlledoux@uw.edu

Calendar & Advertising

Dan Gales

DGales@lockhaven.edu

Editorial Assistant

Cara Lewis

lewisc@bu.edu

Advertising in the Newsletter

The Editorial Board invites businesses that have products or services of interest to members of the Society to advertise in the ASB Newsletter. Advertising space may also be purchased for job postings or other special announcements.

The current advertising rates are as follows:

1/4 page – \$100

1/2 page – \$200

full page – \$400

If you are interested in learning more about advertising in the ASB newsletter, please email Dan Gales:

DGales@lockhaven.edu



ASB Executive Board 2019-20

President

Michelle Sabick, PhD
Saint Louis University,
St. Louis, MO 63103
(314) 977-8282
michelle.sabick@slu.edu

Past-President

Brian Umberger, PhD
University of Michigan,
Ann Arbor, MI 48105
(734) 763-8296
umberger@umich.edu

President-Elect

Nicholas Stergiou, PhD
University of Nebraska
Omaha, NE 68182
(402) 554-3247
nstergiou@unomaha.edu

Treasurer

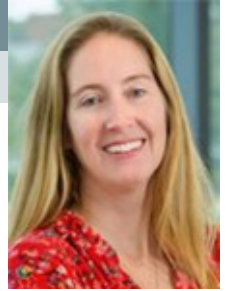
Jill Higginson, PhD
University of Delaware
Newark, DE 19716
(302) 831-6622
higginso@udel.edu

Secretary/ Membership Chair

Katherine Saul, PhD
North Carolina State
University, NC 27695
(919) 515-1273
ksaul@ncsu.edu

Treasurer

Jill Higginson



It has been almost one year since I assumed the role of Treasurer for the American Society of Biomechanics. As with any new project, there was a steep learning curve where I conducted background research (i.e., asked Tammy a bunch of questions), developed my methods, and completed troubleshooting—data analysis and communication of results are ongoing. The first few months were consumed with learning the ropes, transitioning bank accounts, and double checking figures. There is so much I did not know; for example, I did not realize:

- Each Treasurer opens a new bank account and funds are transferred from one Treasurer to the next.
- We pay a variety of monthly and annual service fees to keep the society operational. Thank goodness for the support of PowWeb (web domain: \$14.99/yr), Sitelock (web security: \$70/month), Paypal (storefront for membership and orders: \$30/month), Peace of Mind (accounting services: \$250/month), Security Metrics (PCI compliance for credit cards: \$1249/yr), ISSUU (newsletter host: \$312/yr), CSC (ASB incorporation: \$235/yr), and so on.
- As a non-profit organization, ASB is tax exempt and incorporated in Delaware.
- If awards are greater than \$600, then the recipient is asked to fill out a W-9 form, even if they are not a citizen or located in the United States!
- The Treasurer books accommodations for the mid-year meeting of the Executive Board typically at the host site of the upcoming summer conference.
- We loan each conference host approximately \$20k to make meeting plans. This is used to secure deposits on venues, pay local personnel, acquire miscellaneous items like poster boards, and so on.
- ASB maintains long term investments to protect the society in the event of emergency (such as forfeited venue contract due to conference cancellation).
- The society offers prestigious awards with honoraria but in general, we do not receive enough donations in a year to completely support an award. Your donations are appreciated!

I have enjoyed the collaborative spirit of the executive board and will keep our finances running smoothly!

"You cannot teach a man anything; you can only help him discover it in himself."

- Galileo Galilei

Education Committee

Louis DiBerardino



ASB Executive Board 2019-20

Education Committee Chair

Louis DiBerardino, PhD
Ohio Northern University
Ada, OH 45810
(419) 772-4206
l-diberardino@onu.edu

Communication Committee Chair

Tarang Jain, PhD
Northern Arizona University
Flagstaff, AZ 86001
(928) 523-7305
Tarang.Jain@nau.edu

Newsletter Editor

William Ledoux, PhD
VA Puget Sound
Seattle, WA 98108
(206) 768-5347
wrlledoux@uw.edu

Program Chair

Karen Troy, PhD
Worcester Polytechnic Institute
Worcester, MA
(508) 831-6093
ktroy@wpi.edu

It has been an interesting six months for the Education Committee, which I'm sure you all can relate to. In light of changed plans, stay-at-home orders, etc., this column/newsletter is missing some of the usual suspects, including 2019 Grant-in-Aid (GIA) features and 2020 Regional Meeting summaries. Many 2019 GIA awardees were given an additional year to complete their funded work due to experimentation limitations, so look for them (and some of this year's awardees) at the 2021 annual meeting! Also, as I'm sure you've noticed in this spring's email blasts, only one of our regional meetings was able to happen this Spring, the Mid-South Biomechanics Conference, in Memphis. Some of the meetings were cancelled, and some were postponed until the fall. Check the ASB [website](#) for more information and future updates.

Speaking of regional meetings, the Education Committee oversees the review of regional meeting proposals and supports up to \$2,000 to assist with meeting costs. Proposals to host a meeting are due by September 30th. Please consider hosting a regional meeting this year, or in the future! The executive committee has placed a lot of priority on regional meetings due to their focus on students. Further information for regional meeting support can be found on the ASB [website](#).

The Education Committee stays busy year-round, and most recently we have completed the review of proposals submitted to the 2020 American Society of Biomechanics Grant-in-Aid (GIA) program. The GIA program is a mechanism for our society to provide support to graduate students needing up to \$2,000 in funds to support research needs. Grant applications are due on January 15th of each year and application instructions are available on the ASB [website](#). This year we received 25 applications and were able to award five \$2,000 awards. Congratulations to our winners:

- Sidney Baudendistel, University of Florida, Advisor: Chris Hass. Real-time visual kinetic biofeedback to improve gait in Parkinson's disease.
- Hillary Holmes, Auburn University, Advisor: Jamie Roper. Relationships among cognition and lower extremity neuromuscular control and prospective injury in young adults: implications for non-contact musculoskeletal injury mechanisms.
- Kristen Jakubowski, Northwestern University, Advisor: Sabrina Lee. Quantifying the contribution of age-dependent musculotendon changes to ankle impedance in older adults.
- Constantine Nicolozakes, Northwestern University, Advisor: Eric Perreault. Determining whether altered muscle activation influences shoulder stability in multidirectional instability.
- Sumire Sato, University of Massachusetts Amherst, Advisor: Julia Choi. Age-related changes to corticospinal contributions during locomotor adaptation.



ASB Executive Board 2019-20

Program Chair-Elect

Alena Grabowski, PhD
University of Colorado
Boulder, CO 80309
(303) 492-4009

Alena.Grabowski@colorado.edu

Meeting Chair

Young-Hui Chang, PhD
Georgia Tech
Atlanta, GA 30332
(404) 894-9993

yh.chang@ap.gatech.edu

Diversity Chair

Robin Queen, PhD
Virginia Tech
Blacksburg, VA 24061
(540) 231-3134

rmqueen@vt.edu

Awards Chair

Melissa Morrow, PhD
Mayo Clinic
Rochester, MN 55905
(507) 266-3400

morrow.melissa@mayo.edu

Student Representative

Andrew Vigotsky
Northwestern University
Chicago, IL 60611
(914) 584-9750

vigotsky@u.northwestern.edu

Education Committee, cont.

Louis DiBerardino

Special thanks to the GIA review team for the extra work I gave them as they were trying to move classes online! In preparation for being ready to submit applications for 2021, be sure that all student applicants—and their advisors—apply for, or renew their ASB memberships well before the January 15th grant deadline. To be considered eligible, both the student and advisor must be a current member with 2021 dues paid upon the submission deadline or the application will not be considered. Graduate students wishing to become new ASB members should do so during the fall to allow plenty of time. Again, more information on GIA applications can be found on the [website](#).

As the 2020 Annual Meeting moved to a virtual format, I made the tough decision to cancel this year's Teaching Symposium. As with most years, symposia proposals were competitively selected EXCEPT for the teaching symposium, which runs every year. For this reason, I felt it would be ideal to give the other symposia the best chance for virtual attendance this year, as they may not have another opportunity. We had a really great set of talks in development to show some of the "how's" of teaching, rather than just the results of different strategies (which is also important!), so look for something similar in 2021. If you were hoping to learn new tricks this summer, or just want to run an idea by us, feel free to reach out to me and I'm sure we can find several education committee members to help! The [Teaching Repository](#) is available for ideas, or to share what you've done, as well. Finally, as you are preparing for teaching in the fall, I would urge you to think about how you might turn your classroom activities into research. I'd love to see a very large contingent of teaching-related abstracts at next year's meeting!

****LATE BREAKING NEWS**** The Education Committee is happy to announce a third tutorial to ASB 2020, Teaching during COVID-19: Tips for translating your course to hybrid online learning. Attendees will be able to add this tutorial to their schedules from the CrowdCompass app/OEG (On-line Event Guide), which will be available July 24.



Awards Chair

Melissa (Missy) Morrow

In my first year as Awards Chairperson, it was an honor to oversee the management and selection of the 2020 ASB award winners. The applicants were exceptional, and I congratulate all of the winners on their accomplishments. I sincerely thank all of the award committee members who contributed to the review of applicants during this very difficult year.



Our 2020 Award Recipients are presented below:

Awards that honor an individual for their contributions to the field of biomechanics:

Borelli Award: Steve Messier, PhD, Wake Forest University Presentation is deferred to ASB 2021

This is the most prestigious honor given by the ASB. The award recognizes outstanding career accomplishment and is awarded annually to an investigator who has conducted exemplary research in any area of biomechanics.

This year's Borelli award winner, Dr. Messier is Professor and Director of the J.B Snow Biomechanics Laboratory at Wake Forest University. He has been at Wake Forest for 39 years and has 29 years of experience in clinical trials research specifically related to knee osteoarthritis (OA). His OA research team is well-known for its work on the effects of exercise and weight loss on gait, strength, function, and pain in knee OA. He was the co-principal investigator of the Fitness Arthritis in Seniors Trial (FAST), the principal investigator of the Arthritis Diet and Activity Promotion Trial (ADAPT), the Intensive Diet and Exercise for Arthritis (IDEA) study, and the just completed Strength Training for Arthritis Trial (START). Funding for each of these studies was with grants from the National Institutes of Health (NIH). His work on the ADAPT trial was voted one of the top ten advances in arthritis research for the year 2004 by the Arthritis Foundation.



Currently, Dr. Messier is the principal investigator of two NIH funded studies, the multi-center Weight loss and Exercise for Communities with Arthritis in North Carolina (WE-CAN) trial, and The Osteoarthritis Prevention Study (TOPS). WE-CAN recruited 823 overweight and obese older adults with knee OA in three North Carolina communities to determine if the groundbreaking results achieved in the IDEA trial can be translated to real-world community settings. This phase 3 pragmatic trial is a collaboration with investigators from the University of North Carolina, Brigham and Women's Hospital- Harvard Medical School, East Carolina University, and the University of Sydney. TOPS is a plan-



2020 Award Summary

Borelli Award

Steve Messier,
Wake Forest University



2020 Award Summary

Jim Hay Memorial Award

Antonie (Ton) van den Bogert,
Cleveland State University

Awards Chair, cont.

Melissa (Missy) Morrow

ning grant to prepare for an international, multi-center trial to prevent the onset of knee OA with diet and exercise in people at risk for the disease.

Dr. Messier is also the director of the Wake Forest Runners' Clinic that uses the skills of physical therapists, orthopaedic surgeons, health psychologists, biostatisticians, and biomechanists to determine the causes of overuse injuries in runners. Currently, he is the principal investigator of The Runners And Injury Longitudinal Study (TRAILS): Injury Recovery, and the Strength Training And Runners' Study (STARS), both which are funded by the United States Army.

Jim Hay Memorial Award: Antonie (Ton) van den Bogert, PhD, Cleveland State University,

Hay Award Symposium: Wednesday, August 5th, 11-12:30 EDT

The Jim Hay Memorial Award recognizes originality, quality, and depth of biomechanics research that address fundamental research questions relevant to extraordinary demands imposed in sport and exercise. In 2020, the Hay Committee has elected to award The Jim Hay Memorial Award for Research in Sports and Exercise to Antonie J. (Ton) van den Bogert, PhD. Dr. van den Bogert currently holds the Parker-Hannifin Endowed Chair in Human Motion and Control in the Department of Mechanical Engineering at Cleveland State University. He has previously been on the faculty at the University of Calgary (1993-1998) and the Cleveland Clinic (1998-2010).



His academic degrees are from the University of Utrecht (Netherlands), including a BS/MS degree in Physics and Applied Mathematics, and a PhD degree in Veterinary Science for work on locomotion in horses.

For most of his career, Ton has worked on computational modeling of human movement and computer-aided movement analysis, with applications in rehabilitation, sports, and animation. His work has been supported by numerous federal grants and contracts with industry. Ton 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. He has published over 150 journal articles and book chapters and holds four patents in the area of rehabilitation technology. Notable awards are the Sports Injury Research Award of the American Orthopaedic Society for Sports Medicine (2004) and a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences (2005). He is a Fellow of the International Society of Biomechanics and a Fellow of the American Institute for Medical and Biological Engineering.

Current research interests are: control of powered prosthetic and orthotic devices, predictive simulation for design of sports equipment and assistive devices, and novel methods for analysis of human movement.

Awards Chair, cont.

Melissa (Missy) Morrow

Founders' Award: Tamara Reid Bush, PhD, Michigan State University
Award Session Presentation: Wednesday, August 5 from 4:30-6 PM EDT

The Founders' Award was established in 2017 to recognize scientific accomplishment in biomechanics and excellence in mentoring and is open to investigators of all disciplines within ASB. The 2020 Founders' Award winner is Dr. Tamara Reid Bush who is an Associate Professor in the Department of Mechanical Engineering at Michigan State University with an adjunct appointment in the Department of Bioengineering. She also holds the position of Faculty Excellence Advocate in the College. Broadly, Dr. Bush's area of research is whole-body biomechanics. She conducts in-vivo experimentation, methods development, and modeling to better understand clinically motivated questions. More specifically, her research includes soft tissue mechanics, hand function,



prosthetics and design for persons with disabilities. Her work has been funded by NIH, NSF, Blue Cross Blue Shield of Michigan and several companies from multiple industries. She has 39 journal publications, 91 conference papers/abstracts and 28 invited research talks. Dr. Bush is a Fellow in the American Society of Mechanical Engineers, two-time recipient of the Withrow Teaching Award and most recently received MSU's Inspirational Woman Award for Professional Achievement. She has performed a significant amount of service in her discipline including Associate Editor for the Journal of Biomechanical Engineering, Track Chair for the World Congress on Biomechanics and served as ASB Treasurer.

Dr. Bush has a passion for mentoring students. Since mechanical engineering has one of the lowest percentages of women (13%), an area of focus for her has been mentoring undergraduate women. Annually, Dr. Bush hosts an event called "Shoppin' with the Ladies" which is a night in the machine shop. She works with MSU's Society of Women Engineers to assemble a team of senior level female students, along with herself, and teaches students how to use the lathe, mill, band saw, and drill press. Additionally, she has mentored over 58 undergraduates and over 41 graduate students (primary advisor for 18 of them). Dr. Bush has established a program within her lab where she helps her graduate students learn how to mentor—each graduate student is assigned at least one undergraduate and works with them on research, presentations, and lab reports.

Dr. Bush is committed to mentoring a diverse research group. Diversity in her research group helps creativity and enriches her lab environment. Even though Dr. Bush is in Mechanical Engineering, her students come from many disciplines including: material science, bioengineering, biosystems, kinesiology, orthotic/prosthetics and medicine. Dr. Bush's research group includes domestic and international students, men and women, and underrepresented students. By having a diverse group, the perspectives and knowledge of those in her group are expanded leading to unique solutions and research ideas.



2020 Award Summary

Founders' Award

Tamara Reid Bush,
Michigan State University



2020 Award Summary

Goel Award For Translational Research in Biomechanics

Shorya Awtar,
University of Michigan

Awards Chair, cont.

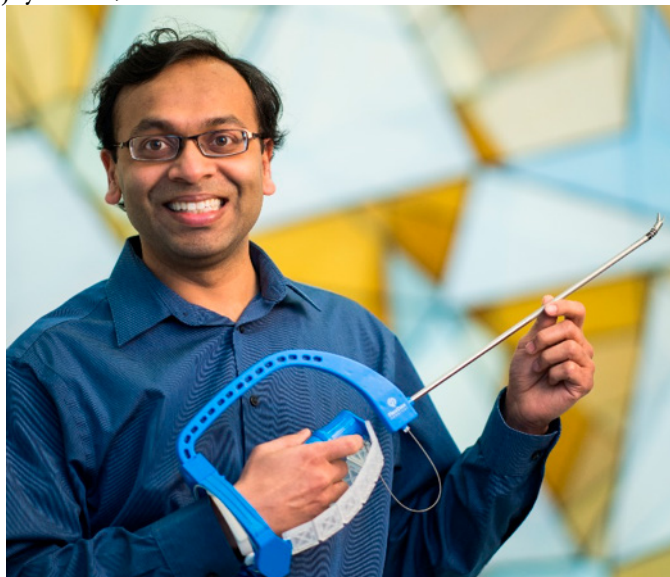
Melissa (Missy) Morrow

Goel Award for Translational Research in Biomechanics: Shorya Awtar, ScD, University of Michigan

Award Session Presentation: Wednesday, August 5 from 4:30-6 PM EDT

The Goel Award, created in 2016, recognizes outstanding accomplishments in translational biomechanics research, entrepreneurship, and societal benefit. The award is named after Dr. Vijay Goel, the Borelli Award winner in 2014 and is given annually to an ASB member. The Award was initiated by Dr. Goel's loving and devoted family. The Goel Award selection is based on originality, quality, and depth of the candidate's research, and the commercial and societal benefits emanating from this research. The 2020 Goel Award Recipient, Shorya Awtar, ScD, is an Associate Professor of Mechanical Engineering at the University of Michigan, and the inventor, founder and Chief

Scientific Officer of FlexDex Surgical. His research interests include machine design, compliant mechanisms, parallel kinematics, human-machine biomechanical interfaces, mechatronics, actuators, flexible system dynamics and controls, and precision engineering. Application areas include affordable medical devices for minimally invasive surgery, precision motion stages for semiconductor metrology, motion sickness mitigation in autonomous vehicles, rehab robotics, modular prostheses, and micro-electromechanical systems. Prior to joining the University of Michigan, Prof. Awtar worked at National Institute of Standards and Technology and the General Electric Global Research Center. He earned his engineering degrees from the Indian Institute of Technology Kanpur (B.Tech. 1998), Rensselaer Polytechnic Institute (M.S. 2000), and the Massachusetts Institute of Technology (Sc.D. 2004). Prof. Awtar has started two companies, FlexDex Surgical and HIPERNAP, to commercialize the technologies developed in his research lab. He has published more than 70 peer-reviewed conferences and journal articles and has three-dozen inventions that are either patented or patent-pending. He has received the National Science Foundation's CAREER Award, the Society of Manufacturing Engineers' Outstanding Young Manufacturing Engineer Award, the American Society of Mechanical Engineers (ASME) Leonardo daVinci Award and Thomas A. Edison Patent Award, the General Motors Young Investigator Award, multiple best paper awards, and multiple R&D100 Awards for his research, innovations, technology transfer, and societal impact. Prof. Awtar is a Fellow of the ASME. He teaches graduate and undergraduate courses as well as professional tutorials in machine design, mechanism design, and mechatronic systems. He actively works with the Ann Arbor Hands-on Museum to create educational exhibits for K-12 children.



Awards Chair, cont.

Melissa (Missy) Morrow

Jean Landa Pytel Award for Diversity Mentorship in Biomechanics: Jill McNitt-Gray, PhD, University of Southern California

Award Session Presentation: Wednesday, August 5 from 4:30-6 PM EDT

The Jean Landa Pytel Diversity Mentoring Award, started 2019, recognizes the long-term impact of mentoring on both the careers of individual scientists, including women and individuals from other traditionally under-represented backgrounds in ASB, and the ultimate betterment of our society as a whole. The 2020 Pytel award winner is Jill L. McNitt-Gray, PhD who is a Gabilan Distinguished Professor in Science and Engineering. Dr. McNitt-Gray mentors students in the Departments of Biological Sciences and Biomedical Engineering at the University of Southern California. She is also the Director of the USC Biomechanics Research Laboratory and was the founding director of a cross-cutting interdisciplinary graduate program in biological sciences at USC. In 2016, she received the Jim Hay Memorial Award from ASB, recognizing the originality, quality, and depth of her biomechanics research that addresses fundamental research questions in sport and exercise. Dr. McNitt-Gray's interdisciplinary research focuses on the neuromuscular control and dynamics of human movements and aims to identify risk factors and develop effective methods in rehabilitation engineering and performance enhancement for individuals with various ability levels (clinical populations as well as elite athletes). She uses both experimental and dynamic modeling approaches to test research hypotheses specific to control priorities during physically demanding, well-practiced tasks. Her research has been funded by Department of Defense, National Science Foundation, National Institutes of Health, Veterans Administration, and national governing bodies of sport including the Medical Commission of the International Olympic Committee and the United States Olympic Committee. Dr. McNitt-Gray earned her undergraduate degree in mathematics and statistics with a certification in coaching from Miami University in Oxford, Ohio in 1980. After working in load research and load management for the American Electric Power Service Corporation, she returned to graduate school at the University of North Carolina, Chapel Hill. In 1985, she earned her master's degree in biomechanics at the University of North Carolina at Chapel Hill under the mentorship of Barney LeVeau PT PhD and was graduate assistant coach of the Carolina Women's Gymnastics team. Dr. McNitt-Gray received her doctoral degree in biomechanics from Penn State in 1989, under the mentorship of Jean Landa Pytel, Richard Nelson, and Peter Cavanagh. Dr. McNitt-Gray has served on the ASB membership committee from 1989-92, on the ASB Executive Board as Education Chair (1993-95), Program Chair (2002), and as President (2009-2012). Dr. McNitt-Gray also served as a member of the Executive Council of the ISB from 2001 to 2007 and served as the ISB Liaison to Affiliated and Economically Developing Societies. Dr. McNitt-Gray has received the USC Mellon Culture of Mentoring Award for her work with the Women in Science and Engineering program (WiSE) and a USC Mel-



2020 Award Summary

Jean Landa Pytel Award

Jill McNitt-Gray ,
University of Southern
California



2020 Award Summary

Young Scientist Pre- Doctoral Award

Joshua Leonardis,
University of Michigan

Young Scientist Post-Doctoral Award

Eni Halilaj,
Carnegie Mellon Univer-
sity

Awards Chair, cont.

Melissa (Missy) Morrow

lon Mentoring award for her mentoring of undergraduate students. The Medical Commission of the International Olympic Committee recognized her research team's work in the physical sciences with the Prince Alexandre de Merode Award. She has served as a biomechanist for the International Olympic Committee, the US Olympic Committee, multiple National Governing Bodies of Sport, and the National Collegiate Athletic Association and in 2016 received the Dr. C. Harmon Brown Award from USA Track and Field for translating science into practice. Dr. McNitt-Gray is also actively involved in translation of science into the practice and outreach programs that provide informal educational experiences in STEM fields and a founding member of the National Biomechanics Day Organizing Committee. Her innovative approaches to research and education have been recognized by the USC Center for Excellence in Teaching and funded by NSF.

Young Scientist Pre-Doctoral Award: Joshua Leonardis, PhD, University of Michigan

Awards Session Presentation: Thursday August 6, 11-12:30 EDT

Josh Leonardis recently graduated with his Ph.D. in Kinesiology from the University of Michigan, where he conducted research in the Musculoskeletal Biomechanics and Imaging Laboratory. His research is focused on identifying the pathophysiological mechanisms underlying the shoulder morbidity commonly experienced by breast cancer patients after post-mastectomy breast reconstruction. He utilizes a holistic approach to identify these mechanisms, including global measures of shoulder joint integrity, local measures of upper extremity muscle quality and function, and patient-reported measures of physical and psychosocial well-being. His research has broad clinical implications that will help ensure breast cancer patients live fulfilling lives post-cancer. He earned his M.S. from East Carolina University where he performed research in The Biomechanics Lab, and a B.S. from Salisbury University.



Young Scientist Post-Doctoral Award: Eni Halilaj, PhD, Carnegie Mellon Uni- versity

Awards Session Presentation: Thursday August 6, 11-12:30 EDT

Eni Halilaj, PhD is an assistant professor in Mechanical Engineering, with joint appointments in Biomedical Engineering and the Robotics Institute, at Carnegie Mellon University in Pittsburgh, PA. She also holds an appointment in Orthopaedic Surgery at the University of Pittsburgh School of Medicine. Eni earned her undergraduate and graduate degrees at Brown



Awards Chair, cont.

Melissa (Missy) Morrow

University. Before joining Carnegie Mellon in 2018, she was a distinguished postdoctoral fellow at Stanford University's Mobilize Center—an NIH Big Data to Knowledge (BD2K) Center. She currently directs the CMU Musculoskeletal Biomechanics Lab, an interdisciplinary group of mechanical engineers, bioengineers, and computer scientists seeking to advance precision rehabilitation in orthopaedics. Their experimental, computational, and clinical research, primarily on osteoarthritis, integrates wearable technologies, medical imaging, and machine learning.

ASB Fellows:

We are happy to announce that three of our esteemed members have been elected as Fellows of the American Society of Biomechanics in recognition of their contributions to the ASB and to the broader field of biomechanics. The ASB created the status of Fellow to recognize professional achievement and service of the top members of the Society and to encourage continued service to the Society in a leadership role. The members of our 2020 class of Fellows are:

Wendy Murray, PhD
Stacie Ringleb, PhD
Kristin Zhao, PhD

Competitive Grant Programs:

Opportunities for Faculty Members

The **Junior Faculty Research Award** is a \$5,000 grant that can be used to generate pilot data and support early-career investigators. The 2020 JFRA recipient is Michael Harris, PhD, Washington University School of Medicine. Dr. Harris will be investigating, "*The Biomechanical Consequences of Femoral Version Deformity and Surgical Correction in Patients with Hip Dysplasia.*"

A **Research Travel Grant** is offered to foster collaborative research and interaction among scientists by helping to offset the cost of travel to a host institution. The 2020 recipient, Jessica Allen, PhD, from West Virginia University, will use these funds to support collaboration with Dr. Jason Franz at UNC-Chapel Hill and NC State University to investigate neuromuscular control of older adults with a history of falls.

Opportunities for Student Members (note GIA were reported by the Education Committee chair and the Diversity Travel Awards remain anonymous)

Student Travel Awards are offered to help students attend the ASB annual meeting. Without an in-person meeting this year, winners are receiving free ASB membership for 2021. To be eligible, one must be an ASB student member and must have authored an abstract for presentation at the annual meeting. When first introduced, ASB funded only 8 Student Travel Awards annually. In recent years, the number of awards made by the society has increased each year, and 18 students were selected to receive awards in 2020.



2020 Award Summary

ASB Fellows

Wendy Murray,
Northwestern University
Stacie Ringleb,
Old Dominion University
Kristin Zhao,
Mayo Clinic

Junior Faculty Research Award

Michael Harris,
Washington University

Research Travel Grant

Jessica Allen,
West Virginia University

Student Travel Awards

- Nicole Arnold
Michigan State University
- Sarah Brinkerhoff
Auburn University
- Michael Christensen
University of Delaware
- Tanetta L. Curenton
Cleveland State University
- Brian Diefenbach
East Carolina University
- Myrriah Laine Dyreson
Concordia University St. Paul
- Farahnaz Fallahtafti
University of Nebraska Omaha
- Malaka (Graci) Finco
U of N Texas Health Science Cen
- Reed Gurchiek
University of Vermont
- Erica Hedrick
University of Nebraska at Omaha
- Allison Hoffee
Montana State University



2020 Award Summary

Student Travel Awards

- Kristen Jakubowski
Northwestern University
- Jonaz Moreno Jaramillo
University of Massachusetts
- Sujata Khandare
Pennsylvania State University
- Archana Lamsal
Michigan State University
- Sarah Catherine Moudy
U of N Texas Health Science Cen
- Kenechukwu Okoye
The Ohio State University
- Joshua Pataky
Penn State University
- Alexander Peebles
Virginia Tech
- Richard Pimentel
University of North Carolina
- Anahita Qashqai
U of Wisconsin-Milwaukee
- Zachary Ripic
University of Miami
- Kazandra Rodriguez
University of Michigan
- Sumire Sato
University of Massachusetts
- Alyssa Schnorenberg
U of Wisconsin-Milwaukee
- Whitney Wolff
University of Michigan

Clinical Biomechanics Award

TBD

Journal of Biomechanics Award

TBD

President's Award

TBD

Volume 31, Number 2

Awards Chair, cont.

Melissa (Missy) Morrow

Awards that are judged based on abstract submissions for the annual meeting::

Journal of Biomechanics and Clinical Biomechanics Awards:
Awards Session Presentations: Thursday August 6, 11-12:30 EDT

The **Journal of Biomechanics Award** recognizes substantive and conceptually novel mechanics approaches explaining how biological systems function. The **Clinical Biomechanics Award** recognizes outstanding new biomechanics research targeting a contemporary clinical problem. Both awards are sponsored by Elsevier Science, Ltd., publishers of the Journal of Biomechanics and Clinical Biomechanics. Top scoring abstracts from the initial program review were first compiled into a list for further review. A review committee was formed and asked to identify 2 finalists based on the significance and potential impact of the work, the potential for the work presented in abstract form to be expanded into a full-length journal article, and the innovation/creativity of the work. The winner of the award will be decided at the meeting.

The finalists for the Journal of Biomechanics award are:

"Stress Provides a Lower-Bound Estimate of Shear Wave Velocity in Skeletal Muscle,"
Tom Sandercock, Michel Bernabei, Sabrina Lee, and Eric Perreault.

"3D Model of the Soleus Reveals Complex Muscle Fascicle and Aponeuroses Deformations during Passive Stretch," **Katherine Knaus** and Silvia Blemker.

The finalists for the Clinical Biomechanics award are:

"Are Gait Kinematics Different in Young Children Who Receive Working Prosthetic Knees?," **Mark Geil**, Colleen Coulter, Brian Giavedoni, and Zahra Safaeepour.

"Preparations for Expected Underfoot Perturbations in Healthy and Concussed Individuals," **Nicholas Kreter**, Bre Dumke, Claire Rogers, Keith Lohse, Lee Dibble, and Peter Fino.

President's Award

This award recognizes outstanding research presented as a poster at the annual meeting. The award is judged solely by the President. All posters are eligible.



Meeting Chair

Young-Hui Chang



As I am writing this article, I am taking a look back at the one I wrote in December 2019. Wow, has a lot changed since then. Soon after resolving to lose those extra pounds I had gained over the holidays, 2020 was only beginning to rear its ugly head. In the following 6 months, the normalcy I had taken for granted had been turned on its head. Planning for the ASB2020 meeting was also turned on its head in March as we saw COVID-19 cases rise and scientific conferences fall one after the other. For a number of reasons, we waited until the last possible minute to announce the switch to a virtual format, but it was at the top of our minds for many weeks in the spring as we had to continue planning for the in-person conference while simultaneously making contingency plans. The only thing we knew for certain was that uncertainty surrounded everything from trying to forecast the pandemic to what the government guidelines would be in August. We will surely look back on 2020 as an unprecedented year for ASB and its members. Although hard to believe, the faltering economy and massive global pandemic only served as the backdrop to the human tragedies and social upheaval we witnessed in May. As ASB rightly stood in support of Black Lives Matter, the routine of 2019 seemed so very distant and trivial. And here we are now, less than four weeks from ASB's first ever virtual annual meeting. So much has happened this year, and it is only July.

In the midst of all that has been happening, ASB conference planners have continued working to put on our annual event in its new virtual format. I am extremely proud of the work everyone has put in under extraordinary circumstances. We will almost certainly have hiccups along the way. But, I believe this experiment will be immensely beneficial for the ASB. However the 2021 meeting ends up looking, I'm sure there will be lessons learned that will improve next year's conference. I believe our annual meetings will be forever changed by 2020, and hopefully for the better. I envision online digital content could become a mainstay of future ASB meetings allowing greater access to many around the world and wider research exposure for many of our members presenting their hard work.

None of us signed up for this when we originally agreed to plan the 2020 meeting. Once we decided to go virtual, it was an 'all hands on deck' mentality and the lines between committees were quickly blurred. The program committee has really stepped up to take on more than they were expecting to do in terms of making the virtual sessions operational. The local Georgia Tech host committee started working on this meeting back in 2018 believe it or not. I want to give huge props to everyone that has played a critical role in this year's planning and re-planning: my co-organizers in Atlanta (Greg Sawicki, Lena Ting, Owen Beck, Aaron Young, Boris Prilutsky); my counterpart and program chair, Karen Troy; the program committee; a couple of really special graduate students that have stepped up big-time in this moment (Jenny Leestma continues to be our web guru and Chase Rock has designed all of our cool conference logos); and, the ASB leadership who have been extremely supportive throughout this process (too many to list!).

So, what will this year's vASB2020 look like for you? Well, you will need to first make sure you [register](#) so you can gain access to the conference content. Once



**2020 Annual
meeting [website](#)**



**2020 Annual
meeting website**

**Twitter: @
ASB2020_ATL**

Meeting Chair, cont.

Young-Hui Chang

registered, you should think of the meeting location as no longer being in Atlanta, but in the clouds at the CrowdCompass (or 'COMPASS') [website](#). Here, you can access the Online Event Guide via your web browser. You can also access it by downloading the CrowdCompass meeting app for your iOS or Android device. COMPASS will be your conference platform where you can create a custom schedule, interact with sponsors and attendees, see live tweets from attendees (use #vASB2020), play the photo challenge game, and, of course, access all of the great scientific sessions, tutorials, and social events.

Think of COMPASS as your conference home. In COMPASS you will find your session/presentation/social event of interest and the hyperlink to get you where you need to be. Just remember to come back to COMPASS afterward to get more great meeting experiences.

Finally, I would like to thank everyone that has shown support for ASB during this very difficult time. I had individual ASB members offer to personally donate their regular registration fees to help offset potential losses we might face due to cancellation. A special thanks to the many corporate sponsors who signed on to support the virtual conference before even knowing what it might look like. These are the usual players we have become familiar with over the years. Please show your gratitude back to them during the meeting. Personally, this swell of support has really energized me and provided some sanity to continue on when things were looking so uncertain. I hope to see everyone online during the conference on August 4th. Although there are larger, more important things going on in the world, I like to think that perhaps a little bit of biomechanics is what many of us need right now to make ourselves feel a little bit normal again... so that we can go back to fighting the good fight. Don't forget to wear your mask, wash your hands, and stay safe!

ASB2020 organizing committee





Biomechanics: The Breakthrough Science of the 21st Century

Dear Friends and Colleagues,

[National Biomechanics Day](#) has had great success the past four years with few adverse outcomes. We have all worked together to introduce [#Biomechanics](#) to over 29,000 high school students around the world. We have brought together biomechanists, teachers, young people and their parents into a unified celebration of all things Biomechanics. It has been a fabulous ride since 2016! You can view many of our NBD highlights in our [Archives](#).

We also thank our many, generous [Sponsors](#) who continue to support not only NBD but all our efforts in Biomechanics. We have said it before and we say it now, if you view the sponsors of various Biomechanics events you will see the same companies supporting all these events. Of course, there is some variation among the events but there is much more overlap with each company sponsoring multiple events.

Today however, we face as all others do, the pandemic of the Coronavirus and COVID-19 illness. We cancelled the physical meetings of the past Spring and we even suggested holding virtual NBDs only if everyone's safe participation could be insured. There were few, if any NBDs this year. Actually, to my knowledge there were two events prior to our shutdown. Dr. Orlando Mendes of the University of Evora in Portugal and Drs. Chang Hung and Hsiang Ho of Taipei Medical University held NBD events and we thank them for advancing Biomechanics in their countries.

We also proposed in March that we will postpone NBD 2020 to October. At this time however, and with great sadness, we are not promoting physical NBD events at any time this year. We cannot in our hearts promote physical gatherings as safe for any participants as long as the Coronavirus pandemic continues to threaten our health and very lives. Further, we are aware that many NBD faculty hosts will be greatly challenged in directing their labs and programs and teaching their courses this Autumn due to university modifications to all activities in response to the continuing pandemic. Finally, our society is now fully and rightfully engaged in the presence of and battle against racism in the United States and around the world. National Biomechanics Day fully supports the elimination of racism in all aspects of our lives and we will not hold events this year so that people can direct more energy to healing society. We are saddened by the absolutely undeserved deaths of George Floyd, Rayshard Brooks, and all others killed through racist actions and we call for an end to racial injustice in police actions.

Looking forward, [The Biomechanics Initiative](#), the new parent organization of NBD is formulating new responses to these issues and will develop funding opportunities for the Biomechanics community to not only increase the impact of Biomechanics on society but to do so in an inclusive, diverse, and fair manner. Please watch for future announcements as we work together to help people through NBD 2021 and with the official date of April 7, 2021.

We thank everyone for your great support and enthusiasm and we remain confident that through all our efforts we will increase the impact of Biomechanics on people's lives and so bring greater health and happiness to everyone.

National Biomechanics Day: Where Science Meets Fun

Click: [NBD Website](#) [NBD on Twitter](#) [NBD on Facebook](#) [NBD on Instagram](#)



Biomechanics: The Breakthrough Science of the 21st Century

Please stay safe and healthy. With great regard, your friend and colleague,

Paul DeVita

Paul DeVita, Ph.D.

Founder and Director, National Biomechanics Day



NBD 2020 events in Portugal and Taiwan

Celebrating the 21st Century's Breakthrough Science...
National Biomechanics Day 2021

295 : 10 : 50 : 48
DAYS HOURS MINUTES SECONDS
(approximately)

National Biomechanics Day April 7, 2021

Celebrating the 21st century's breakthrough science
Biomechanics is...

...for everyone

National Biomechanics Day April 7, 2021

National Biomechanics Day April 8, 2020

The Internationalization of National Biomechanics Day

NBD Nations
Armenia
Australia
Belgium
Brazil
Canada
Chile
Colombia
Czech Republic
Egypt
France
Germany
Hong Kong
Iran
Iraq
Ireland
Malaysia
Mexico
New Zealand
The Netherlands
Pakistan
Portugal
Saudi Arabia
Singapore
South Africa
Spain
United Kingdom
United States

NBD celebrates Biomechanics with 27 Nations
29,274 High school students
944 High school teachers
And a BIG IMPACT

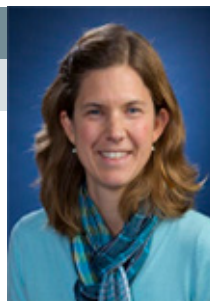
JOIN NBD 2021 – April 7!!!

National Biomechanics Day: Where Science Meets Fun

Click: [NBD Website](#) [NBD on Twitter](#) [NBD on Facebook](#) [NBD on Instagram](#)

Program Chair

Karen Troy



I am looking forward to seeing you all at the 2020 Virtual ASB meeting! Although it will not be the same as an in-person meeting, I am happy to report that the Program Committee has been working very hard to preserve most of the content and interactions that we think are an important part of our annual meeting. Here are some details:

- 12 live/synchronous podium sessions with 144 oral abstract presentations
- Award and keynote talks
- A “Three Minute Thesis” competition for Master’s and PhD students
- 3 tutorials
- 3 symposia
- 4 professional development/networking sessions
- Virtual Student Night Out and Diversity Events
- Over 600 searchable poster presentations, with discussion boards organized by topic

All of the live/synchronous content will take place on our originally scheduled conference dates (August 4-7). And, all of these sessions will be recorded and available for viewing for an extended period of time after the fact.

Logistics:

The entire program will be accessed through CrowdCompass. In past years we have used the mobile app version of this platform. This year, we recommend using the web-based version, which we are working on building out. The program will go “live” on July 24. Our biggest challenge is in making sure we can all find what we’re looking for. This has required an extensive effort to ensure that posters and presentations are indexed and searchable, since we cannot simply browse through the poster hall.

Here’s some more information about what the online program will contain:

- Links so that you can access all live/synchronous sessions
- After sessions are complete, we will update links so that you may view the recorded sessions
- Links to the program book with all abstracts (PDF format)
- A schedule of poster discussion topics and links to discussion forums for each topic, along with a listing of all posters that are included in that topic
- Abstracts and presentations (posters, podiums) will be searchable using keywords, filters, and tags

Basic program details are available at the conference [website](#). An announcement will be made once the CrowdCompass Online Event Guide “live”.

Lastly, I would like to thank my entire Programing Committee for all their hard work: Lise Worthen-Chaudhari, Fran Gavelli, Alena Grabowski, Jeremy Crenshaw, Craig McGowan, and Rumit Singh. We can’t wait to see you all in August!



**2020 Annual
meeting [website](#)**



Find us on Facebook or Follow us on Twitter

Facebook: [American_Society_of_Biomechanics](#)

Twitter: [@AmSocBiomech](#)

Communications Committee

Tarang Jain



During these unprecedented times, I wanted to share that you, your family, your friends, and your colleagues are in my thoughts. We're all anxious and things are changing quickly, but ASB's first priority is the health and safety of its members and to be together and practice physical distancing. While we had to cancel/postpone many of our [regional conferences](#) this year, many members have expressed their deep appreciation for the difficult decisions that regional organizers had to take in short time.

The [2020 Annual meeting](#) is on for August as planned and we are excited to hold the meeting in a virtual format! Similar to previous years, we will be trying our best to record/archive all of the content. We will be LIVE-STREAMING the keynotes, symposia, podium/3-minute thesis presentations, and more so that the conference attendees can access the latest biomechanics-related research in the safety and convenience of their home. I need to thank the program committee members for their hard work and diligence in making the vASB 2020 possible. For updated information, visit the conference site and follow the ASB2020 [twitter feed](#) to get updates about the ASB Annual Conference.

We continue to maintain a strong online presence with more than 4,000 hits per month and nearly 5,400 followers on [twitter](#). We are in the process of updating the [grad programs](#) website and soon you will also find many improvements on the [ASB website](#). We're always finding new ways of serving our members, based on what they tell us they need. We will be happy to promote our members and biomechanics-related research/news.

We're all facing a long and challenging list of unknowns. We're both gaining and losing visibility on what our new reality is each day, but I am confident that things will be better soon. Please don't hesitate to reach out with any questions or if we can be helpful or supportive of you in any way. If you know of creative communication changes that other organizations are making during this period—or if you have suggestions, let me know. If you have any feedback, comments, suggestions or questions please feel free to [email](#) me.

I am looking forward to the exciting program at vASB2020 and virtually meeting many of you. Let's get ready to replace the hand-shakes with hand waves and smiles at vASB2020!

vASB2020

Virtual 44th Meeting of the American Society of Biomechanics

August 4-7, 2020



President-elect

Nicholas Stergiou

Every year I look forward to our ASB Meeting where I can see again my scientific family, my colleagues, and friends, but also to relax and enjoy the fellowship of every and each one of you. Unfortunately, this year the virus will not allow us to do so. Instead, we will gather virtually to share in our discipline. It is not the same but is the best we can do. I am certain that we will still excel and have a great virtual meeting because we are an absolutely wonderful scientific family. I want to applaud the efforts of the Program Chair, Meeting Chair, and their teams, in terms of navigating truly uncharted waters.

During my first year on the Executive Board, I have been tasked with finding a company to run our meetings and society. This is the case with many other societies similar in size with ours (e.g., CSB or ISPGR). I have made many inquiries and contacts. We do have some potential avenues that we will discuss and vote on in our upcoming future. In addition, being back on the Executive Board after several years allowed me to realize the significant progress we have made in a variety of different areas. Hopefully, as I become your President I will also be able to start with my own initiatives in terms of (a) Biomechanics diversity and outreach efforts, (b) Biomechanics as a context for increasing awareness and capability to participate in STEM education, and (c) Biomechanics education.





2020 Annual meeting [website](#)

Diversity Committee

Robin Queen



It has been a busy year for the Diversity Committee since the combined ASB/ISB meeting in Calgary. We would like to thank everyone for your feedback on the ASB code of conduct which we will continue to refine as we approach the 2020 annual meeting. If you have additional comments related to the code of conduct or other concerns or questions, please reach out to any member of the ASB Diversity Committee.

We have been working hard to plan the diversity and inclusion events for the 2020 meeting in Atlanta. With the transition to a virtual format, the diversity committee is committed to providing spaces where we can come together as a community and grow in our understanding of the challenges faced by members given the current COVID-19 crisis and the many instances of unrest in the US, and to be a source of support throughout each member's career. The diversity committee is committed to hosting events as part of ASB 2020. We will be hosting a conversation using a large and small group discussion format through Zoom (details will be provided during meeting registration) on the topic of systemic barriers to success. We will be hosting this event on Thursday, August 6, from 6:00pm-8:00pm Eastern Time. Please visit the ASB 2020 [website](#) for updates as they become available.

The Diversity Committee is thrilled to report that we were able to award 8 Diversity Travel awards for those from underrepresented groups to present their work during the 2020 annual meeting. Given the shift to a virtual meeting the scope of these travel awards has changed and will not be funding travel to the annual meeting. All other aspects of the award will remain unchanged and we would like to congratulate the awardees for their exemplary work that was accepted for presentation at the ASB 2020 meeting. We look forward to continuing to offer these awards for future virtual and in person ASB meetings to recognize the exceptional accomplishments of our members and to improve diversity and inclusion through the society.

Given the transition to a virtual format we will not be hosting a diversity outreach event as we have in the past. However, for those of you who are interested in diversity and outreach work please plan to join us the first day of the 2021 meeting for this amazing event that allows us to engage with the local community.

Through the hard work of this committee, which includes [Matt McCullough](#), NC A&T University; [Joan Bechtold](#), University of Minnesota; [Susan Diekrager](#), Novel Electronics; [Becky Zifchock](#), United States Military Academy (West Point); [Ajit Chaudhari](#), The Ohio State University, and our two outstanding student members: [Alyssa Olivas](#), The University of Texas at El Paso; and [Jordyn Schroeder](#), Georgia Tech, we have been able to plan for an exciting 2020 annual meeting. We hope that everyone will consider joining us for this event as well as other events that are being planned throughout the 2020-2021 academic year to keep us connected as a community between annual meetings.

I would like to take this opportunity to recognize Ajit Chaudhari from The Ohio State University who will become the ASB Diversity Chair following the 2020 meeting. It has been my honor and pleasure to serve the ASB in the role of Diver-

Umbrellas are for Tourists

William Ledoux



What a crazy 4 months this has been! After weeks on end of working from home, I have finally settled on the away-from-the-office setup that works for me—mac laptop with the giant monitor on the wisteria covered back porch to enjoy the breeze—in fact I am typing from there right now. I am still struggling with zoom (why do I have to “claim host” to allow screen sharing when was the one who set up the meeting??), but have been using it regularly both for lab/work meetings and successful job interviews, as well as for weekly family chats that were all too infrequent before. Compared to some relatively isolated colleagues, our family really can not complain with a backyard and a neighborhood to walk and bike in. Despite exercising nearly everyday, I have managed to gain weight due to the easy access to food all day. The Mandalorin and the Marvel movies were great, but I have spent way too much time watching cable news. We are all disappointed that we will not be seeing the grandparents on the East Coast anytime soon, but have managed some socially distant camping. All of which is to say, I am looking forward to normalcy returning, whenever that may be.

In this issue, you will read about all the hardwork and exciting plans of the ASB meeting and programing teams led by Young-Hui Chang and Karen Troy, respectively. This will probably be the first virtual conference for many of us, and I for one am interested in the experience. As previewed by ASB President Michelle Sabick, you will also hear about many of the forward thinking ideas of the ASB, including the newly approved ASB Strategic Plan, the move to found the first Student chapters of ASB, the adoption of the ASB code of conduct, the organization of the officers of the ASB fellows, the initiation of a new Executive Board position (Awards Chair) that should free up future Past-Presidents to concentrate on finishing their initiatives, and the investigation of much needed corporate conference and society management options. It is an exciting, vibrant time for our society and I am confident that we will emerge for the better.

Diversity Committee, cont.

Robin Queen

sity Chair since 2018. Ajit has served as a member of this committee for a number of years and has been instrumental in the plan and implementation of the annual meeting events as well as helping to draft and modify the ASB code of conduct. I would not have enjoyed my time of the committee nearly as much without Ajit and the rest of the members of the committee. I learned from them in each interaction and I am excited to continue to work with Ajit and the committee on his initiatives whenever I am called upon. Ajit's primary goal as Diversity Chair is to get more people involved on the Diversity Committee so we can do more during the annual meeting and throughout the year. If you have ideas about how we can best support diverse perspectives and the people who have them in their careers, please reach out and get involved.

Please feel free to reach out to me (via [email](#)) or any member of the committee at any time with suggestions or concerns during the year as well as throughout the 2020 Annual Meeting.





Back Copies of the Newsletter

All previous ASB newsletters have been converted into pdf documents and are archived on the [ASB website](#).

Past-President

Brian Umberger



This is my eighth, and presumably last, article for the ASB newsletter, written as I approach the end of my second term on the executive board. Normally, as Past-President, this article would primarily be about awards. With that task now in the able hands of our new Awards Chair, Dr. Missy Morrow, that provides the opportunity for some reflection.

The ASB 2020-2025 strategic plan was recently adopted by a nearly unanimous vote of the membership. As the person who was ultimately responsible for seeing this initiative through to completion, I am so grateful for the tremendous engagement by the membership in this process. Hundreds of members contributed by completing surveys and providing feedback, and over 50 members made substantial contributions to the development of the plan. I especially want to thank Dr. Wendy Murray for the critical role she played early in the process. No matter how well crafted a plan is, it is only as good as its implementation. We are already making progress on several goals and have a plan in place to monitor and report on progress. While it may seem obvious now in hindsight, this experience reinforced for me that the reason the ASB is such a special organization for so many people is because the members are so heavily invested in its success.

While there is much to celebrate about the present and future of ASB, as I write this, we are in the midst of both a global pandemic, and a period of social awakening and upheaval not seen since the late 1960s. While there are elements of the strategic plan that relate to both domains, these and other future events may require actions by the Society we could never have foreseen, or in the latter case, really should have addressed. It is important to remember that the strategic plan is not a rigid set of rules meant to constrain us, but rather a guide to help ensure we continue making progress on commonly held goals. I trust that the lack of an item in the strategic plan focused specifically on systemic racism will not prevent us from taking concrete steps to identify and remove barriers that disproportionately impact our members from underrepresented backgrounds, as well as those who we have missed out on joining our ranks because of those barriers. Likewise, the pandemic has major implications for our scientific meetings in the next year or two. Yet, even after we have a vaccine for the COVID-19 virus, I suspect the nature of scientific conferences will be changed permanently and the ASB will need to adapt to that new reality. I know we are up to the challenge.

In closing, the highlight of being president of ASB was getting to know and interact with such a wide swath of our membership, as well as international members of the broader biomechanics community. I especially want to acknowledge the fellow scientists I had the pleasure of serving with on the executive board. You will not find a more dedicated group of people. I sincerely appreciate the opportunity to have played a small role in the life history of the ASB.

"There's never enough time to do all the nothing you want."

- Bill Waterson

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Virtual 44th Meeting of the
American Society of Biomechanics

