President Elect Candidate
Douglas B. Gould, PhD
Professor of Ophthalmology
Professor of Anatomy
UCSF School of Medicine

My Background: I am a Professor of Ophthalmology and Professor of Anatomy at the University of California, San Francisco (UCSF). I began my scientific career in my native Alberta, Canada by earning a Bachelor of Science with specialization in Genetics and then Doctorate in Medical Genetics at the University of Alberta. I did my postdoctoral training at the Jackson Laboratory in Bar Harbor, Maine where I discovered a curiosity => interest => fascination => passion => obsession in extracellular matrix. I started my independent research career as an Assistant Professor at UCSF and am now a tenured Professor and serve as the Director of Research and Vice Chair for Research in the UCSF Department of Ophthalmology.

My Research: My early research interests were in developmental biology and ocular development/dysgenesis. I stumbled serendipitously into matrix biology research while I was a postdoctoral fellow and undertook a side project to identify the gene responsible for ocular dysgenesis observed in a murine forward genetic screen. The gene was collagen IV alpha 1 (*Col4a1*). At the time, very little was known about the biological functions of the collagen a1a1a2 (IV) network and human disease-causing *Col4a1* and *Col4a2* mutations had not been identified. The next year, I developed my independent research program to ask: 1) what are the biological functions of type IV collagens and 2) how can we best develop therapeutic interventions to help individuals with pathogenic *COL4A1* and *COL4A2* variants? My team remains steadfastly committed both to fundamental tissue biology and to harnessing evolving translational approaches with patient-focused goals.

My Service: At home, I am the Director of Research and Vice Chair for Research in the UCSF Department of Ophthalmology and a member of the executive committee for the Biomedical Sciences Graduate program. As Director and Vice Chair for Research I developed and implemented a mentorship and compensation program that recognizes postdoctoral fellows as the engines that drive research yet are often overlooked in academic settings. I believe that fostering young researchers is the way to build sustainable long-term success and I make it a priority to continue advocating for their advancement. Beyond these roles, I was elected to a three-year term on the programming committee for the Association for Research in Vision and Ophthalmology (ARVO) and contributed to organizing committees for other national organizations (eg. North American Vascular Biology Organization – NAVBO). I was elected in 2019 as Vice Chair for the 2021 (COVID) and 2023 *Collagen* Gordon Research Conference and Chair of the 2025 *Collagen* GRC. The success of this meeting (with major shout outs to the '*collagen dream team*' of Rachel Lennon, Alex Nyström, Megan Martin and George Pantelopulos!) was a significant point of pride and contributed to my desire to continue serving the matrix community as president elect of ASMB.

I have been an ASMB member since 2006, was elected to the ASMB council from 2020-2023 and I have contributed to the organizing committees of ASMB annual meetings and ASMB-sponsored workshops. I consider this society my scientific home and treasure this community for personal and professional reasons. I hope to leverage my experience and exposure to executive and administrative roles in service of advancing the missions of ASMB.

President Elect Candidate
David Sherwood

Jerry G. and Patricia Crawford Hubbard Professor and Associate Chair of Biology, Duke University.

Over the past 20 years at Duke University and 23 summers at the MBL in Woods Hole, MA, I have built a research program examining fundamental principles of basement membrane biology—how basement membranes are built, grow, connect tissues, stretch, age, and regulate stem cell niches. Through creative live imaging approaches, my lab has discovered dynamic aspects of basement membranes, such as fast movement of matrix molecules along "basement membrane highways", sliding of whole basement membrane sheets during morphogenesis, and rapid delivery of matrix components to facilitate basement membrane stretching and recoil. Our studies have also led to the formation of a company developing gene therapy approaches for matrix diseases. I have held many leadership and service positions, including serving on the ICI NIH study section and the Damon Runyon Fellowship Award committee, directing the Duke Development and Cell Biology Program, directing the Duke Ethics Retreat, co-directing the Regeneration Program at Duke, directing the Embryology Course at the Marine Biological Laboratory in Woods Hole, and being the associate chair of the Biology Department. I have helped organize numerous national and international meetings on basement membranes, cell invasion, development and regeneration. I have also taught in over different 10 courses at Duke spanning cell biology, matrix biology, regeneration, and development and in courses in Paris, Shanghai and Manchester, England.

I have a strong track record of connecting broad fields of study, mentoring students, postdocs and faculty, public outreach, and overseeing diverse and successful research and teaching programs. Despite today's challenging funding landscape, as ASMB president I would work to support a vibrant future for extracellular matrix (ECM) research. To meet this moment, I would expand ASMB's connections with industry, biotechnology, disease foundations, and other emerging funding partners that can help sustain and advance our field. I will also continue to broaden our interdisciplinary reach, ensuring that ASMB meetings feature strong engagement with the human disease communities, and the fields of development and regenerative biology, mechanobiology, physiology, and cell biology.

I will prioritize education and outreach with dedicated ASMB meeting sessions and workshops focused on teaching ECM biology, sharing teaching resources, recruitment of teaching focused faculty and undergraduate students to ASMB, and improving the communication of our science to the public and those with lived experiences of ECM disorders. This will be crucial in increasing the impact of our field and enlisting the best young scientists to study ECM. Supporting graduate students, postdocs, and junior investigators will also be strengthened through expanding career development resources and strengthening the mentoring program linking trainees with established researchers with the goal of cultivating a sense of belonging, curiosity, and boldness in science and teaching. Recognizing the invaluable wisdom and leadership of our senior members, I also envision the formation of a Senior Advisory Board of established and retired scientists to strengthen fundraising, industry partnerships, and mentoring efforts.

Together, I expect these ASMB initiatives will advance matrix biology, build a stronger and more connected community, and ensure that the next generation of ECM researchers can thrive.

Secretary Treasurer Candidate

Karen La"Shea" Posey is an Associate Professor at the McGovern Medical School at UTHealth in the Department of Pediatrics. She is a member of the Texas Bone Disease Program, a multi-institution consortium which support extracellular matrix research through academic engagement and shared resources.

She earned a PhD in Biochemistry from the University of Houston. During her post-doctoral work at Texas A&M Institute of Biotechnology, she employed an engineered molecular switch in addition to mutational analysis to understand the function of homing endonucleases.

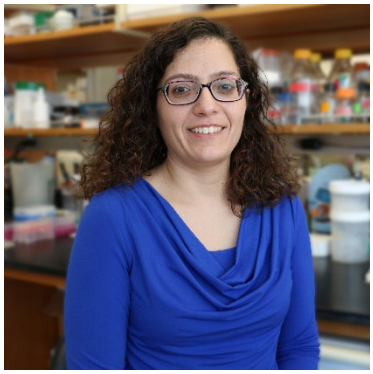
Since her faculty appointment, her research interests have focuses on cartilage pathologies and the function of extracellular matrix proteins. She characterized the collective action of thrombospondin (TSP)-1, TSP-3, cartilage oligomeric matrix protein (COMP/TSP-5), and type IX collagen (Col9) in the growth plate using a quad-knock-out. Her team developed an inducible mouse model that recapitulates human pseudoachondroplasia (PSACH) phenotype. This model was used to understand a complex molecular mechanism in chondrocytes which leads to short stature and joint degeneration. The results of her investigations described a mechanism by which unrelenting ER stress from mutant-COMP accumulation drives inflammation and oxidative stress resulting in a self-perpetuating pathological stress loop. Mutant-COMP accumulation is not cleared as it is resistant to proteasomal clearance and autophagy is blocked through a TNFα/TRAIL driven mechanism. This stress triggers premature death of growth plate chondrocytes limiting long-bone growth and generates a pro-degradative environment leading to premature joint degeneration. To identify potential PSACH therapeutics, she took a mechanism driven approach targeting COMP mRNA, ER stress, inflammation, oxidative stress and autophagy. Resveratrol, the best preforming therapeutic, was shown to promote autophagy clearance of mutant-COMP thereby increasing limb length and preventing mutant-COMP joint degeneration.

Shea has served as ASMB Treasurer since January 2022 and is standing for re-election.

Brian Aguado, PhD

Dr. Brian Aguado is currently an Assistant Professor of Bioengineering at UC San Diego, where his laboratory research is focused on studying sex differences in cardiovascular disease using biomaterial technologies. Dr. Aguado is also the Co-Director for the Women's Health Innovations through Scientific Discoveries, Engineering, and Medicine (WHISDEM) Center at UC San Diego. Dr. Aguado completed his BS degree in Biomechanical Engineering from Stanford University and his MS and PhD in Biomedical Engineering from Northwestern University. He also obtained his certificate in Management for Scientists and Engineers from the Kellogg School of Management at Northwestern. He completed his postdoctoral fellowship in Chemical and Biological Engineering at the University of Colorado Boulder. Dr. Aguado has received numerous grants to support his research, including the NIH K99/R00 Pathway to Independence Award, the American Heart Association Career Development Award, the Chan Zuckerberg Initiative Science Diversity Leadership Award, the NIH DP2 New Innovator Award, the NSF CAREER Award, and the Women's Health Access Matters (WHAM) Edge Award. Dr. Aguado is also the recipient of the American Society of Matrix Biology Young Investigator Award, the Society for Biomaterials Young Investigator Award, the Tissue Engineering and Regenerative Medicine International Society (TERMIS) Young Investigator Award, the Cellular and Molecular Bioengineering (CMBE) Rising Star Award, the Biomaterials Journal Young Investigator Award, the Great Minds in STEM HENAAC Award for Most Promising Scientist and Engineer, and was elected as an AIMBE Emerging Leader for his efforts as an ISSCR Goldstein Science Policy Fellow. Dr. Aguado also co-founded the non-profit organization LatinXinBME, a grassroots virtual mentoring group of over 600 Latinx biomedical engineers dedicated to building a community that supports each other personally and professionally through their careers. For his mentoring and teaching efforts, he was named one of the 100 Most Inspiring Latinx Scientists in America by Cell Press and received the Society for Biomaterials Diversity, Equity, and Inclusion Award, the BMES Diversity Award, the ASEE Constituent DEI Award, the Teacher of the Year Award from the Jacobs School of Engineering, the ISSCR Public Service Award, and the GEMINI Faculty Mentor Award from the UCSD Institute for Engineering in Medicine.

Dr. Aguado is running to be elected as a Council Member for the American Society for Matrix Biology to build upon the fantastic foundation of exemplary matrix biology research and inclusivity among members. First, Dr. Aguado seeks to strengthen ASMB's commitment to broadening participation of underserved communities by creating the ASMB Social Impact Award, which will be awarded to an ASMB member with outstanding commitment to expanding access of matrix biology research to various communities. Second, Dr. Aguado will work with the *Matrix Biology* journal editors to create a special issue for Outstanding Young and/or Mid-career Investigators in the matrix biology community and create an opportunity for investigators to present their research at the Biennial Meeting. Third, Dr. Aguado will work with the Council to establish a ASMB Grade of Fellow program (analogous to Fellow programs in other scientific societies) to encourage long-term commitment and leadership in research, education, and social impact from our members.



Carmen Halabi, MD, PhD

Carmen Halabi is an Associate Professor of Pediatrics, Chief of the Division of Pediatric Nephrology, at Washington University School of Medicine (WashU) in St. Louis. She holds a secondary appointment in the Department of Cell Biology and Physiology at WashU.

After completing her MD/PhD training at the University of Iowa, Carmen moved to St. Louis for her Pediatric residency and Nephrology fellowship training. Her first introduction to matrix biology research began in 2012 when she joined Dr. Bob Mecham's lab for her postdoctoral training. In Dr. Mecham's lab, she studied the role of vascular elastic fiber perturbations in cardiovascular development and disease, focusing specifically on hypertension and aneurysms. An exciting observation she made during her postdoctoral work was that mutations in extracellular matrix (ECM) genes affect large elastic arteries differently than resistance arterioles. Based on this observation, the current focus of her lab is to understand differences between large and small arteries, both structurally and functionally, from a matrix perspective. She is NIH-funded and has published over 40 manuscripts. In addition to serving as an *ad hoc* reviewer for many journals including *Matrix Biology*, she has served as an *ad hoc* reviewer on NIH study sections as well as for the American Heart Association and Department of Defense. She was a member of North American Vascular Biology Organization (NAVBO)'s education committee (2019-2022) where she created a lecture on "Blood Vessels in Disease" for high school students and organized lists of current cardiovascular training grants across the country as a resource available for trainees on NAVBO's website. She now serves as editor for NAVBO's *Vascular Biology Publications Alert*, a monthly publication that provides relevant vascular biology publications to the community. In addition to running her research program, Carmen helps lead the summer research program and pilot and feasibility awards program for WashU's NIH-funded Pediatric Center of Excellence in Nephrology. She also spends part of her time practicing general Pediatric Nephrology.

Carmen has been a member of the American Society for Matrix Biology (ASMB) since 2014 and has benefited immensely from the supportive community. Even as a trainee, she felt welcome and was encouraged to network with investigators at the biennial meeting and has developed long-lasting relationships with several members of the community. When she thinks about how she got to where she is today, she knows that it's mainly because of all the opportunities that have been provided to her by her mentors and colleagues. Therefore, in addition to adding the perspective of a physician-scientist to the Council, if elected, her goal will be to support activities that help recruit/promote young scientists not only to pay it forward, but also to secure the future of the matrix biology field.

Renato Iozzo

Renato V. Iozzo, MD PhD (*Honoris causa*) is currently the Gonzalo Aponte Endowed Chair Professor of Pathology and Genomic Medicine, and Professor of Biochemistry and Molecular Biology at the Sidney Kimmel Medical College of Thomas Jefferson University in Philadelphia. After completing his medical degree *summa cum laude* at the University of Florence, Italy, Dr. Iozzo moved to University of Washington in Seattle completing his residency in Pathology and a postdoctoral training with Dr. Tom Wight. He was then recruited by the University of Pennsylvania in Philadelphia where he had a rapid career being promoted to Associate Professor within 6 years and becoming Tenured Professor at Thomas Jefferson University two months later. Based on his research achievements and continuous contribution to science, Dr. Iozzo was awarded two Doctoral Degrees *Honoris causa*, one from Semmelweis University, Hungary, in 2011, and one from the University of Patras, Greece, in 2016. Dr. Iozzo has contributed to the ASMB since its inception. He was one of the founders of the ASMB and was member of the First Council, and President in 2010. He was also President of the ISMB and Chair of the Gordon Research Conference on Proteoglycans. Dr. Iozzo was the Editor-In-Chief of *Matrix Biology* and *Matrix Biology Plus* until 2021 (9 years). Under his leadership, *Matrix Biology* reached an impact factor of 11.57. In 2022 Dr. Iozzo launched a new open access journal, *Proteoglycan Research,* published by Wiley, the first journal devoted to research on proteoglycans and glycosaminoglycans. Dr. Iozzo is a leading researcher on the biology of proteoglycans and their role in cancer, tumor angiogenesis and autophagy. Dr. Iozzo has published >450 papers and is a top cited author in the field with >71,000 citations and an *h*-index of 137.

Vision Statement: Given his extensive participation in the society activities since its inception and given the large amount of experience in inorganizing meeting, fund raising, editorial and scientific activities, Dr. Iozzo would be a great asset to the ASMB council and for the progression of the Society toward reaching higher goals. He will bring what AI cannot offer: a great deal of human wisdom.

Timothy Mead, Ph.D.

I am an Assistant Professor in the Department of Pediatrics at Case Western Reserve University School of Medicine and a Staff Scientist in the Division of Pediatric Cardiology at University Hospitals Rainbow Babies and Children's Hospital in Cleveland, Ohio. After earning his bachelor's degree at the University of Dayton, I worked in the Department of Pulmonary Biology at Cincinnati Children's Hospital Medical Center where I studied the role of VEGF signaling in the lung. I then joined the Molecular and Developmental Biology graduate program at Cincinnati Children's Hospital where I was an American Heart Association Pre-Doctoral fellow studying the role of Notch signaling in cardiac and musculoskeletal development and disease. I earned my Ph.D. in 2011 and then joined the Cleveland Clinic as a postdoctoral fellow where I was awarded the David and Lindsay Morgenthaler and Arthritis Foundation Postdoctoral fellowships studying the transcriptional regulation of Sox9. I then joined Suneel Apte's laboratory at the Cleveland Clinic where I was awarded an NIH F32 Postdoctoral Fellow and R01 grant studying the role of ADAMTS proteases in development and disease. My laboratory investigates the role of extracellular matrix in connective tissue disorders as well as ADAMTS proteases in congenital heart defects and musculoskeletal development and disease.

I have been a member of ASMB since 2014 and have participated in many ASMB leadership roles including the planning committee and session co-chair at various ASMB conferences. I now bring laboratory members to the ASMB conference, which is a rewarding experience. I am also a member of several societies including the North American Representative for the International Society for Matrix Biology, Society for Developmental Biology, and the American Heart Association.

Vision for the society: A keen focus on trainee engagement will not only increase membership but will expand the nurturing environment of ASMB leading to greater crosstalk and collaborations between extracellular matrix-related biological systems and disease mechanisms. This can be achieved by keeping the great programs already in place ongoing and adding additional opportunities for engagement such as trainee planning and co-chairing future sessions at meetings. These measures will additionally increase the opportunities for senior mentors to continue their engagement in ASMB in an advisory role, which is the main reason why the society thrives.

Justin Parreno, Ph.D.

Dr. Justin Parreno is an Assistant Professor in the Departments of Biological Sciences and Biomedical Engineering at the University of Delaware. Before joining UD, he conducted post-doctoral research at The Scripps Research Institute with Dr. Velia Fowler, earned his Ph.D. at the University of Toronto under Dr. Rita Kandel, and completed his M.Sc. at the University of Calgary with Dr. David A. Hart.

Dr. Parreno's research focuses on understanding how matrix physical and biochemical cues regulate gene expression through the actin cytoskeleton. His lab aims to apply this knowledge to develop innovative therapeutic approaches for treating conditions such as osteoarthritis, tendinosis, and cataracts.

Dr. Parreno has been involved with the American Society for Matrix Biology (ASMB) since presenting at the 2006 ASMB meeting in Nashville as an M.Sc. student. He attended ASMB conferences in 2010, 2012, and 2014 as a Ph.D. student and postdoctoral researcher, and in 2021 and 2025 as a new PI. Most recently he brought six students (four Ph.D. students and two undergraduates) to the 2025 meeting. He encourages his students to attend ASMB events to gain exposure to the exceptional science and collaborative spirit of the matrix biology community. He is committed to making ASMB a central venue for disseminating his lab's latest research and engaging with leading scientists in the field.

As a council member of ASMB, Dr. Parreno aims to expand the society's visibility and outreach, especially within the musculoskeletal biology field with initiatives such as a musculoskeletal-focused special issue of Matrix Biology. This initiative would not only help expand the profile of both the society and the journal but also create an additional revenue stream for ASMB.

Dr. Parreno is also dedicated to expanding mentorship opportunities for early-career researchers. He founded the Cytoskeleton Scholars program, which pairs trainees with faculty mentors for scientific and career guidance. Scholars are also tasked with conducting interviews with established leaders in the field, exploring key scientific discoveries that are later published in Cytoskeleton. This program not only fosters valuable connections within the scientific community but also helps preserve critical insights and milestones from the field's history. Dr. Parreno believes that developing a similar mentorship initiative within the matrix biology field is essential for fostering connections between emerging and established researchers. By creating a network that bridges generations of scientists, this initiative would help document and preserve the historical and scientific contributions of matrix biology. In turn, these efforts would enrich the field, enhance the professional development of early-career scientists, and ensure that the society's legacy continues to thrive.

His vision is to strengthen mentorship pipelines, expand professional networks, and preserve the rich history of matrix biology, all while advancing ASMB's core mission of improving human health through the promotion of matrix biology.

Roy Zent, MD/PhD Vanderbilt University Medical Center.

It is an honor for me to be considered as a council member for the ASMB. I have been working in the field of extracellular matrix and its receptors for over 30 years, and I can be considered an expert in the field. I have organized several Basement Membrane workshops through the ASMB and I have been the Chair of the Fibronectin and related molecules GRC. I have been the chair of the organizing committee for the American Society of Nephrology, and I have been successful in securing extramural fundings for all these events I am currently a Professor of Medicine in the Division of Nephrology and the Vice Chair for Research in the Department of Medicine at Vanderbilt University Medical Center. In this position I manage the large research portfolio of the best funded department of medicine in the USA. Finally, I have been an editor for the journal *Matrix Biology* and I continue to serve in this role. Being an editor for a matrix focused journal puts me in an excellent position to follow not only the scientific growth of our society but also to identify novel niche of ECM-focused research.

Scientific societies are at a critical stage of their existence due to the mounting pressures that we are currently living in . These constraints include financial pressures and the decreased number of young investigators choosing basic and translational science as a profession. The ECM field is particularly vulnerable as the understanding of the ECM in health and disease requires specialized tools and scientific knowledge. As a council member I will bring my scientific and business experience to the society. I will bring innovative ideas on how to remain financially solvent so that we can perform the tasks expected from the society. I will help to bring our community together and organize meetings and activities so that we remain a relevant society that promotes the needs of our community. Importantly I will be an advocate for ECM focused research and help in promoting a fruitful network of collaborations among members of the society. Finally, I will make sure young investigators and newcomers in the ECM field are welcome and appreciated by our Society.