2024 Biophysical Society Elections



PRESIDENT-ELECT NOMINEE

VOTE FOR ONE

Henry M. Colecraft

John C. Dalton Professor of Physiology and Cellular Biophysics and Professor of Pharmacology Department of Physiology and Cellular Biophysics Columbia University Medical Center

Research Interests: Molecular biophysics and physiology of voltage-gated ion channels; ion channel post-translational regulation; ion channel engineering; ion channelopathies; ubiquitin control of ion channel expression

Education: BS, Physiology, King's College London (1988); MS, Pharmacology, University of Rochester (1992); PhD, Pharmacology, University of Rochester (1996)

Summary of Professional Experience: Postdoctoral, Johns Hopkins University (1997-2000); Assistant Professor, Dept. of Biomedical Engineering, Johns Hopkins University (2001-2007); Associate Professor, Dept. of Physiology & Cellular Biophysics and Dept. of Molecular Pharmacology & Therapeutics, Columbia University (2007-2019); Associate Vice Chair, Dept. of Physiology & Cellular Biophysics, Columbia University (2016-present); Professor, Dept. of Physiology & Cellular Biophysics and Dept. of Molecular Pharmacology & Therapeutics, Columbia University (2019-present); John C. Dalton Professor, Dept. of Physiology & Cellular Biophysics, Columbia University (2019-present)

Awards, Honors, and Activities: Gordon K. Moe Young Investigator, Upstate New York Cardiac Electrophysiology Society (1995); Wallace O. Fenn Award, University of Rochester (1996); Established Investigator Award, AHA (2009-2013); Councilor, SGP (2012-2017); Chair, BPS Membrane Biophysics Subgroup (2013-2014); Faculty Mentor Award, Columbia University (2014); NIH SRG Biophysics of Neural Systems (BPNS) (2013-2019); Co-organizer, SGP Symposium (2015); Co-chair, FASEB SRC on Ion Channel Regulation (2019); Co-chair, AHA-SFRN Arrhythmia & SCD Basic review group (2019); Editorial Board, *Physiology*, (2021-present); AHA Diversity and Inclusion Working Group (2020-2021); Reviewing Editor, *eLife*, (2020-present); Dean's Distinguished Lecture, Columbia University (2021); A. Ross McIntyre Award, University of Nebraska (2021); Scientific co-founder, Stablix, Inc. (2021); Kenneth S. Cole Award, BPS Channels, Receptors & Transporters Subgroup (2022); Scientific co-founder, Flux Therapeutics (2022); Co-organizer, FASEB SRC on Illuminating the Druggable Genome (2023); NIH SRG, Heart, Lung, and Blood Program Project (HLBP) (2023-present); Fellow, National Academy of Inventors (2023); A.R. Martin Lectureship, Dept. of Physiology and Biophysics, University of Colorado Medical School,

Biophysical Society Activities: Society member regular attendee of Annual Meeting since 1992; Abstract Sort Committee (2003, 2021-2023); BPS meeting platform Chair and/or speaker, (2005, 2006, 2011); SRAA poster judge (2006); BPS meeting symposium speaker (2006, 2014, 2024); Chair, Membrane Biophysics Subgroup (2013-2014); Associate Editor, Biophysical Journal, (2016-2021); BPS meeting workshop Chair (2020); Biophysical Society MOSAIC UE5 Steering Committee, 2021; Chair, BPS Nominations Committee, (2021); Kenneth S. Cole Award (2022); BPS Council (2021-2024)

Candidate's Statement: I am honored to be nominated to run for President of the Biophysical Society (BPS). Reflecting on my career to date has brought into sharp focus how important and inextricably linked BPS has been to my professional development and career path. I attended my first BPS Annual Meeting in 1992 as a second-year graduate student and was completely captivated. The energy, the scientific sessions, the fellow students I met, the first glimpse of scientists whose work I had read, and yes, the society dance. In the 32 years since, I have missed only a handful of BPS Annual Meetings. I met my soon-to-be postdoctoral advisor, the late David Yue, while presenting a poster at the 1996 meeting held in Baltimore; I gave my first platform talk as a postdoctoral fellow at the 1999 meeting held in

New Orleans; I spoke at my first symposium at the 2006 meeting (in Salt Lake City) as an Assistant Professor; I was elected Chair of the Membrane Biophysics Subgroup and organized the Subgroup symposium in 2014; four of my students have won Student Research Achievement Awards, and I have chaired or participated in several platform sessions, symposia and workshops. The Annual Meeting has been a critical forum for us to present our work, learn new things, establish collaborations, catch up with colleagues, and network. I have been fortunate to serve in various roles at BPS including as an Associate Editor of *Biophysical Journal*, as a member of BPS Council, and on several committees.

If elected as President, I will strive to advance the broad ideals of BPS as laid out in the recent BPS Strategic Plan which includes four main objectives:

- 1. Foster a Diverse and Inclusive Global Community
- 2. Enhance the Sharing of Knowledge in and about Biophysics
- 3. Invest in the Future of Biophysics
- 4. Advocate for and about the Value of Biophysics

I would be guided by these principles in fulfilling one of the main duties of BPS President - leading the direction and organization of the Annual Meeting (by appointing Program Chairs) and selection of the BPS Lecturer. We would work diligently to put together a forward looking and exciting scientific program that involves and engages the broad, multi-disciplinary BPS membership, prioritizing opportunities for trainees and junior faculty to present their work. I have previously organized two FASEB scientific research conferences and two symposia which have been very successful and incorporated these core principles. Beyond the Annual Meeting, BPS supports the organization of several smaller meetings and events including Thematic Meetings, BPS Conferences, and Networking Events that further serve and engage BPS membership. I would work to promote and support these meetings and events.

It has been gratifying to see BPS take a proactive role in promoting an inclusive environment that provides equal opportunities for everyone interested in biophysics to thrive, exemplified by the prominent display of various DEI initiatives on the BPS website. I have had keen interest in increasing representation of under-represented minorities in STEM fields and have taken several actions to this effect over my career. For example, I have been a mentor in the Summer Program for Under-Represented Students (SPURS) at Columbia University for over 16 years, and have also successfully mentored a diverse group of trainees in my lab. I would seek to apply my experience in developing young scientists to support existing and new initiatives to continually advance DEI at BPS as part of the strategic objective of investing in the future of BPS. Demonstrating the translational potential of biophysical principles is one avenue to demonstrate the value of biophysics to a broader community. In this regard, targeted protein stabilization technologies developed in my lab and rooted in core biophysics principles have led to two startup companies seeking to exploit the approach to discover new medicines; this is an experience that I could bring to promote translational biophysics at BPS.

In closing, I am grateful for the opportunity to run for President of BPS. Philosophical qualities I would bring to the president role include my interest in inter-disciplinary science, commitment to inclusiveness, dedication to mentorship, and deep appreciation of my colleagues. I would welcome the opportunity to further serve BPS in this role, and if elected I will work diligently to maintain the vitality of the Society and the Annual Meeting to the benefit of all members.



PRESIDENT-ELECT NOMINEE

VOTE FOR ONE

Karen Fleming Professor of Biophysics Thomas C. Jenkins Department of Biophysics Johns Hopkins University

Research Interests: My research program investigates forces driving membrane protein folding and how a network of chaperones ensures efficient biogenesis of outer membrane proteins in E. coli. My research uses solution biophysics to measure binding and molecular hydrodynamics, integrated structural modeling, several different kinds of computing, and single molecule methods.

Education: BA University of Notre Dame (1987); PhD Biochemistry and Molecular Biology, Georgetown University Medical Center (1993)

Professional Experience: NIH Postdoctoral Fellow and Research Scientist, Yale Molecular Biophysics and Biochemistry (1993-2000); Assistant, Associate and Full Professor (with tenure) of Biophysics, Johns Hopkins University.

Awards, Honors, and Activities: BPS Avanti Award (2023); BPS Fellow (2022); ASBMB Fellow (2021); Protein Society Carl Brändén Award (2020); Society of General Physiologists Sharona Gordon Award (2020); Phi Beta Kappa Visiting Scholar (2020-2021); JHU Provost's Prize for Faculty Excellence in Diversity (2019); JHU Diversity Leadership Council Award in recognition of the Women of Hopkins art exhibit and website (Awarded as part of a team, 2017); Thomas E. Thompson Award, BPS Membrane Structure and Assembly Subgroup (2016); JHU Diversity Leadership Council Award: a recognition of the Empowering Women in STEM workshops (individual award, 2015). Associate Editor, J. Biol. Chem. (2017 - Pres); ASBMB Elected Member of Council (2014-2017); BPS Elected Member of Council (2011-2014); Lipids Theme Co-Organizer, ASBMB National Meeting (2014); President, Gibbs Society of Biothermodynamics (2010); Founding Chair, GRC on Membrane Protein Folding (2015); Chair, GRC on Biomolecular Interactions and Methods (2011); Scientific Organizing Committee, International AUC meeting (2001 – present); NIH BBM Study Section (2013-2017); NSF Molecular Biophysics, Physics or Chemistry Study Sections (2006-2017); PI, NIH T32 Program in Molecular Biophysics (2023-present); Arne Tiselius Young Investigator award (1997); NIH NRSA F31 Pre-doctoral Fellow (1991-1993); Nina Heard Astin Scholar (1983-1987)

Biophysical Society Activities: Elected Member of BPS Council (2011- 2014); BPS Thematic meeting Co-Chair on Membrane Protein Folding (2013); 59th Annual BPS Meeting Program Co-Chair (2015); BPS Workshop on Nurturing a More Inclusive STEM Enterprise by Understanding our Biases (2019); Committee on Professional Opportunities for Women (CPOW) Member (2015-2021) and Chair (2021-present); Annual Meeting New and Notable Speaker (2011); Annual Meeting Symposium Speaker (2023)

Candidate Statement: I would be honored to serve as President of this amazing Society. The BPS has played an important role in my scientific career and has provided me with a welcoming community of scholars and friends. I will have three areas of focus as President.

The first is to sustain and tweak the society efforts concerning all the existing programs that work well. This includes the meetings, the society-sponsored journals, and the many additional activities created and sponsored by the committees. As I did when I served as

co-organizer of the 59th Annual Meeting and the 2013 Thematic Meeting on Membrane Protein Folding, I will advocate for a diverse set of organizers and speakers at future Annual Meetings, in the small Thematic Meetings, and in the Subgroup symposia. Diverse representation and inclusion at our keystone events are essential for nurturing our newest scientists in their own journeys in STEM. It is equally important for all members to see that all kinds of people from around the world do excellent science. The BPS journals are another strength of the Society, and I will work to ensure their success in this rapidly changing publishing landscape. From my experience as an Associate Editor, I am well versed with the difficulties of maintaining high quality publishing in the face of so many economic challenges and predatory journals. This is an evolving landscape that I will address in collaboration with the journal Editorial Boards and with input from membership. Finally, the committees are the backbone of the Society. As a CPOW member and Chair, I have learned that committee initiatives can significantly impact the BPS as a whole. As President, I will nurture the grass roots ideas that bubble up from committees and turn them into policy positions whenever possible. One example is the effort that CPOW makes every year to ensure that women are nominated for awards. The outcome is that women do win awards, when nominated. I will work with committees to learn what additional initiatives they are piloting that could be leveraged on a larger scale to remove barriers, to build careers, and to promote excellence in science and society.

Second, I will work to strengthen the public face of science. It is more important than ever for our representatives to make science-informed decisions. We must tirelessly raise awareness about how advances in science have a positive impact on the lives of everyday people. The rapid development of the COVID vaccine is certainly one example that made me proud to be a scientist during those difficult pandemic times. Targeted therapeutics such as antibody drugs that save lives are another. These technologies all stem from basic science discovery work involving biophysics. I will work together with each of you to get this message out. There is also a crisis concerning the economic structure of scientific funding. Flat levels of funding are unsustainable in the face of increased financial pressures from the cost of reagents, equipment, and personnel. Societies must take a greater role in raising this conversation with the funding agencies.

Third, I am excited about the possibilities presented to us by artificial intelligence and machine learning and what this will mean for the field of biophysics. As a society of quantitative scholars, we will no doubt be adopting these technologies into our research. Because only some of us are trained in computer science, the field of biophysics has the task of learning a new set of tools so we can best leverage the powers of applying AI and ML to design better experiments and to discover emergent properties that lead us to the next level of mastery in our quests to address cellular and molecular questions.

In conclusion, it is an exciting time to be not only a scientist, but especially a *biophysicist*. I would welcome the opportunity to lead the initiatives outlined above and to give back to a Society that has been so important to me by serving as your President.

2024 Biophysical Society Elections



TREASURER NOMINEE VOTE FOR ONE

Samantha Harris

Professor Department of Physiology Department of Biomedical Engineering University of Arizona

Research interests: Muscle contractile proteins, regulation of muscle contraction, hypertrophic cardiomyopathy, arrhythmogenesis, mechano-electrical signaling

Education: BS, Biology, University of Illinois (Urbana-Champaign), 1988; PhD, Physiology, University of Michigan (Ann Arbor), 1994; Postdoctoral Researcher, Physiology, University of Wisconsin (Madison), 1995–2003

Summary of Professional Experience: Research Assistant Professor, University of Washington, Department of Bioengineering 2003-2007; Assistant Professor University of California, Davis 2007-2011; Associate Professor, University of California, Davis 2011-2013; Associate Professor, University of Arizona 2013–2019; Professor, 2019–present, Departments of Physiology; Biomedical Engineering, University of Arizona, Tucson, Arizona

Awards, Honors, and Activities: American Heart Association, Western States Affiliate, Laverna Titus Young Investigator Award, 2008; NIH CCHF study section 2016-2020; American Heart Association BCVS Leadership Committee 2017-2020; Marion J. Siegman Lectureship Award, American Physiological Society, 2019

Biophysical Society Activities: Society Member since 1994; Regular attendance at annual meetings of the Biophysical Society since 1996; Committee on Professional Opportunities for Women (CPOW) 2009-2014; Program Co-chair, Motility and Cytoskeleton Subgroup, 2015; Biophysical Society Council 2012-2015; Finance Committee 2015-present; Public Affairs Committee 2015-present; Treasurer, 2020-present; *Biophysical Journal* Editorial Board 2020-present

Candidate's Statement: I am honored to be considered for a second term of service as the Biophysical Society Treasurer during this challenging time as we strive to recover from the pandemic crisis and reinvest in bringing our members together. Now, more than ever, the principles of fiscal responsibility, continually exercised by the Biophysical Society, will serve to ensure the Society's continued growth and its mission to support our diverse and international membership of scientists. As Treasurer, I will continue to work alongside Society Officers and Finance Committee members to ensure the solid financial footing of the Society with the goal of continuing proactive investments in scientific discovery, outreach, and leadership for dissemination and cross-pollination of biophysical ideas to scientists and non-scientists alike.



Silvia Cavagnero
Professor
Departments of Chemistry and Biochemistry
University of Wisconsin – Madison



Theanne Griffith
Assistant Professor
Department of Physiology and Membrane
Biology
University of California, Davis School of
Medicine

Research Interests: Co-and post-translational protein folding and dynamics in the cell, including the role of the ribosome and molecular chaperones; development and applications of new technologies to explore protein folding in physiologically relevant environments, including optically enhanced NMR, frequency-domain fluorometry and single-particle cryo-EM

Education: BS in Chemistry, University "La Sapienza", Roma, Italy (1988); MS in Chemistry, University of Arizona -Tucson (1990); Ph.D. in Chemistry, Caltech, Pasadena, California (1996)

Summary of Professional Experience: AAUW and Wills Foundation Postdoctoral Fellow in Structural and Molecular Biology, Scripps Research Institute, La Jolla, California (1996-1999); Assistant Professor (2000-2007), Associate Professor (2007-2010) and Full Professor (2010-present) of Chemistry at the University of Wisconsin-Madison (UWM); Member of NMRFAM National NMR Facility Advisory Committee (2010-2012); Chair of Climate/Diversity Committee at UWM Department of Chemistry (2010-2016); Chair of Laser-Enhanced NMR Sub-Committee (2014-present); Chair of Physical Chemistry Path at UWM Department of Chemistry (2016-2019); Member of International Spin Chemistry Committee (2020-present); Affiliate Professor of Biochemistry at UWM (2020-present); Associate Director of Biophysics Graduate Program at UWM (2020-present); Chair of Biophysics-Program Curriculum Committee at UWM (2023-present); Member of Leadership Council of the UWM Department of Chemistry (2023-present)

Awards, Honors, and Activities: Fulbright Fellow (1988-1990); American Association of University Women (AAUW) Postdoctoral Fellow (1996-1997); Wills Foundation Postdoctoral Fellow (1998-1999); Research Innovation Award of Research Corporation (2001); Shaw Scientist Award of Milwaukee Foundation (2001); ACS/PROGRESS Dreyfus Lectureship Award (2007); Vilas Associates Award (2009); Honorary Member of the Phi Kappa Phi Honor Society (2016); UWM Award for Mentoring Undergraduates in Research, Scholarly and Creative Activities (2017); Honored Instructor Award of UWM (2006, 2008, 2017); Council of Undergraduate Research (CUR, Chemistry Division) Outstanding Mentorship Award (2022); Editorial Board Member of *Journal of Magnetic Resonance* (2015-present); Lead Organizer of Yearly STEM/Diversity Research Symposia at SACNAS National Conference (USA, 2015-present); Co-Organizer of 27th Midwest Stress Response and Molecular Chaperone Meeting (2022); Co-Organizer of American Chemical Society (ACS) Symposium on the Physical Chemistry of Cotranslational Protein Folding (2023).

Biophysical Society Activities: Member since 2000. Member of BPS Minority Affairs Committee (MAC, 2010-2016); Chair-Elect/Chair/Past-Chair of Biopolymers *in Viνο* (BIV) Subgroup of BPS (2013-2015); Member of BPS Committee for Professional Opportunities for Women (CPOW, 2021-2023); Co-Chair of BIV Symposium (2021); Council Member of Intrinsically Disordered Proteins (IDP) Subgroup of BPS (2021-2023); Co-Chair of BPS Workshop on Rebuilding Research Momentum During the Pandemic (2022); Member of BPS Committee for Inclusion and Diversity (CID, 2023-present); Secretary-Treasurer of BIV Subgroup of BPS (2023-present).

Candidate Statement: I am truly passionate about fostering scientific excellence, creativity, diversity at all levels, as well as mentoring across the field of biophysics. Therefore, if granted the honor to serve on the BPS Council, I will focus on the following areas. First, I plan to advocate for preserving and enhancing the quality of the science shared among the BPS members at the Annual Symposium (including the amazing Subgroup Saturdays), Biophysics Week and the BPS Satellite Meetings. Second, I will also foster more effective dissemination of the fundamental concepts underlying biophysics among young generations worldwide. Biophysics is evolving at a fast pace, and I see the need to more effectively show how biophysics can integrate with — and truly contribute to — enhancing other biologically-related disciplines. Third, I will advocate to take further advantage of web-based tools across BPS, to more effectively disseminate biophysics knowledge worldwide, especially across scientists that cannot afford to regularly attend the Annual Meeting. In addition, I will be highly supportive of initiatives that foster and enhance inclusivity and diversity across genders and ethnicities worldwide. Finally, I will work hard to enhance networking and peer mentoring at all career levels during and beyond the Annual Meeting, so that biophysics gatherings provide an opportunity not only to gain scientific knowledge, but also to feel more included and potentiate leadership skills.

Research Interests: Ion channel function and modulation, in particular native ion channels in sensory neurons, neuronal excitability in health and disease, electrophysiology

Education: BA in Neuroscience and Spanish, Smith College, 2008; PhD in Neuroscience, Northwestern University, 2015

Summary of Professional Experience: Postdoctoral Fellow, Department of Physiology & Cellular Biophysics, Columbia University, 2015-2019; Instructor, Department of Pharmacology, Physiology, and Neuroscience, Rutgers University, 2019-2020; Assistant Professor, Department of Physiology & Membrane Biology, University of California Davis, 2020-Present

Awards, Honors, and Activities: Neuroscience Scholars Program Fellow, Society for Neuroscience, 2011-2014; American Heart Association Predoctoral Fellowship, 2013-2015; Burroughs Wellcome Fund Postdoctoral Enrichment Program Fellow, 2017-2020; Postdoctoral Councilor, Society of General Physiologists, 2018-2020; Neuroscience Scholars Program Class Advisor, 2019-2021; UC Davis Center for Advancing Multicultural Perspectives in Science (CAMPOS) Scholar, 2020; Neurobiology Course Faculty, Marine Biological Laboratory, 2021 and 2022; Neuroscience Scholars Program Fellow Selection Committee, Society for Neuroscience, 2021-Present; UC Davis Public Scholarship Faculty Fellow, 2022; Juneteenth Service Award, Vanderbilt University, 2022; Finalist, AAAS Early Career Award for Public Engagement with Science, 2023; Co-organizer, Society for General Physiologists Annual Meeting, Mapping the Pain Landscape: From Molecules to Medicine, 2023; Member, Society of General Physiologists, 2014-Present; Editorial Board Member, Neurobiology of Pain, 2022-Present; Editorial Board Member, Neurobiology of Pain, 2022-Present; Editorial Board Member, Plance of General Physiology, 2023-Present; Editorial Board Member, Plance of General Physiology, 2023-Present; Editorial Board Member, Plance of General Physiology, 2023-Present; Editorial Board Member, Plance of General Physiology, 2024-Present; Editorial Board Member, Plance of General Phys

Biophysical Society Activities: Member, Biophysical Society, 2016-Present; Founder and Organizer, Justice for Underrepresented Scholars Training in Biophysics (JUST-B) Program, 2020-Present; Committee for Inclusion and Diversity, 2021-present; Co-Chair, Inaugural Black in Biophysics Presidential Symposium, 2023

Candidate Statement: I would be honored to serve on the Council of the Biophysical Society. As I mentioned in my published remarks in the Biophysical Journal following the inaugural Black in Biophysics Presidential Symposium, I attended my first BPS meeting in 2015 and felt immediately welcomed. I have attended the Annual Meeting nearly every year since, and have made life-long friends and colleagues through my participation in the Society. The Society has fostered my professional development as a postdoctoral fellow and now as an early-stage investigator. This was a major reason I sought to create the Justice for Underrepresented Scholars Training in Biophysics (JUST-B) program, which I consider one of my most important contributions to the Biophysical Society. JUST-B celebrates the achievements of underrepresented and underserved students, postdocs, and early career researchers in the field of biophysics promoting their research at a special poster session and offering support through networking and recruitment opportunities. If elected to the BPS Council, I aim to ensure that the JUST-B poster session remains a staple at the Annual Meeting. During my tenure on Council, and beyond, I would work to transform JUST-B into a formal fellowship program, based off my experience as a Neuroscience Scholar Program fellow and class-advisor (Society for Neuroscience). I would also work closely with the Black in Biophysics leadership to promote a strong working relationship between this trainee-run affiliate organization and the Society. This is in line with my goal of ensuring the Biophysical Society remains committed to fostering an inclusive and accessible environment for all biophysicists, independent of their racial or ethnic background, gender identity or sexual orientation, country of origin or immigration status. I will bring the same dedication, rigor, and enthusiasm to Council that I do to all initiatives I care deeply about, and I will work hard to advance the Society's strategic





Ryota Iino
Professor
Institute for Molecular Science
National Institutes of Natural Sciences, Japan

Research Interests: Single-molecule biophysics, Molecular motors and machines, Optical microscopy, Protein engineering

Education: B.E., Polymer Chemistry, Kyoto University (1995); M.E., Synthetic Chemistry and Biological Chemistry, Kyoto University (1997); Ph.D., Biophysics, Nagoya University (2003)

Summary of Professional Experience: Research Fellow, Japan Science and Technology Agency (2000-2005); Specially-appointed Assistant Professor (2005-2006) and Assistant Professor (2006-2011), Osaka University; Lecturer (2011-2013) and Associate Professor (2013-2014), The University of Tokyo; Professor, Okazaki Institute for Integrative Bioscience (2014-2018) and Institute for Molecular Science (2014-present), National Institutes of Natural Sciences; Professor, SOKENDAI (The Graduate University for Advanced Studies) (2014-present)

Awards, Honors, and Activities: Emerging Investigator, Lab on a Chip, The Royal Society of Chemistry, UK (2012); Committee Member, The Biophysical Society of Japan (2019-2023); Guest Editor, *Chemical Reviews Molecular Motors* Thematic Issue, American Chemical Society (2020); Editorial Board Member of *Biophysics and Physicobiology* (2024-present).

Biophysical Society Activities: Society member since 2003; Platform Chair (2012, 2019) and symposium speaker (2020) of Annual Meetings; Speaker of Thematic Meeting (2016); Editorial Board Member of *Biophysical Journal* (2020-present); Subgroup member of Motility and Cytoskeleton (2017-present), Nanoscale Approaches (2019-present), and Single-Molecule Forces Manipulation & Visualization (2021-present)

Candidate Statement: I am truly honored to be nominated for Council member of the Biophysical Society. Biophysics has always been the most fascinating research field for me since I was struck by the first single-molecule fluorescence imaging in aqueous solution in the mid-1990s. At the time, I was enrolled in a master's program in chemistry, but soon changed my major to biophysics to pursue a Ph.D. The Society has been at the center of my scientific career since my first paper on single-molecule imaging of green fluorescent proteins in living cells was published in the *Biophysical Journal* in 2001. I am very grateful to currently serve on the Editorial Board of the *Biophysical Journal*. I also vividly remember attending my first Annual Meeting in Baltimore in 2004. It was an incredibly exciting experience for me to be involved in the forefront of scientific excellence. Since then, I have always learned a lot from each Annual Meeting I have attended. If elected as a Council member, I would like to contribute to the Society by encouraging the younger generation around the world, especially in Asia, to participate in the wonderful activities of the Society.



Felix Ritort
Professor of Physics
Small Biosystems Lab, Condensed Matter
Physics Department
University of Barcelona

Research Interests: Single-molecule biophysics; Nucleic acids thermodynamics; RNA and protein folding; Nonequilibrium physics and stochastic thermodynamics

Education: BS Physics by the University of Barcelona, Spain (1988); PhD in Physics with honors by the University of Barcelona (1991)

Summary of Professional Experience: Postdoctoral fellow at the Physics Department of University of Rome II (Tor Vergata) (1992-1994); Postdoctoral fellow at the Applied Mathematics Department at the University Carlos III de Madrid in Spain (1995); Postdoctoral fellow at the Institute of Theoretical Physics at the University of Amsterdam in the Netherlands (1996-1997); Associate Professor at the University of Barcelona (1998). Visiting scholar at University of California at Berkeley (2002-2005); Full Professor in Condensed Matter Physics at the University of Barcelona (2007-present)

Awards, Honors and Activities: Excellence PhD prize from the University of Barcelona; Qualification for full Professor at the Spanish national level (2007); Chair of the Division of Physics in Life Sciences of the European Physical Society (EPS) (2013-present); Research-Distinction award by the Catalan government to promote scientific research (2002-2006); Icrea Academia awards in 2008-2012; 2013-2017; 2018-2022; 2023-2027 in recognition to my scientific research; Bruker Excellence Award 2013 from the Spanish Biophysical Society (SBE); Van der Waals Professional Chair during the year 2017 awarded by The Amsterdam Institute of Physics and Astronomy (IPA); Invited PhD lecturing at: Leuven, Belgium (2003), Les Houches, France (2005,2006); Paris, France (2005,2006); Milano, Italy (2007); Udine, Italy (2008); University of Rome III, Italy (2010); University of Santiago de Chile (2011); Universidad Nacional de Colombia (2013); Curie Institute of Paris, France (2013); University of Padova, Italy (2018,2019); Tel Aviv University, Israel (2023); Co-editor of the Grand Challenges 2050 by the European Physical Society. Reporter for the Nobel Foundation (2007,2017). Invitation by the Nobel Foundation for the Nobel Prize ceremony in 2018. Nominator for Physics and Chemistry Prizes (2019-present). Chair of the conferences *Biology* for Physics BioforPhys17 "Is there new physics in living matter?" (Barcelona, 15-18 January 2017) and BioforPhys17 "Biological Evolution and Nonequilibrium Physics: Close Encounters" (Barcelona, 3-7 July 2022) co-organized by the Small Biosystems Lab and the European Physical Society. Chair of the workshop "New approaches for single protein sequencing" in Barcelona (February 2019). Member of evaluator panels such as the Human Frontiers Science Program (2010-2012) and the European Research Council Consolidator Grants during the term 2014-2020, among others.

Biophysical Society Activities: Society Member 2007, 2009, 2010, 2011, and 2024. Subgroup memberships: Macromolecular Machines & Assemblies; Single-Molecule Forces Manipulation & Visualization. Invited talk at the Subgroup session on "Single-Molecule Forces, Manipulation, and Visualization" at the Annual Meeting of San Diego in 2022 and served as an undergraduate poster award competition judge in that meeting.

Candidate Statement: I am honored to be nominated for the Biophysical Society Council. I have been impressed by the quality of the Biophysical Society at all levels, from the Society's capabilities in organizing events and conferences to the scientific excellence of its members. I recognize the highly multidisciplinary character of the BPS, whose members come from the most diverse disciplines within the experimental sciences, such as biology, chemistry, physics, and more. I aim to bring my perspective and knowledge of molecular thermodynamics, statistical mechanics, and the physics of nonequilibrium systems to the biophysical world by fostering new collaborations between the biological and the physics and chemistry communities. Strengthening the BPS involves supporting and promoting activities that underscore this multidisciplinary character, particularly at the educational level, to benefit young researchers embarking on their careers. Furthermore, as a non-US citizen, I am keen to bring the scope of the BPS activities to Europe and, why not, to the rest of the world too. Drawing on my current role as Chair of the Division of Physics of Life Sciences of the European Physical Society, I aim to facilitate collaborations and exchanges between the Biophysical Societies of European Union member countries and the BPS. We can all benefit from the natural communication capabilities intrinsic to science activities to create a better world. If elected, I pledge to contribute to the advancement of the BPS. I believe the BPS is currently the best biophysical society worldwide, and I would love to be on board with you all.



Renae Ryan
Professor
School of Medical Sciences
University of Sydney, Australia



George Stan
Professor of Chemistry
Department of Chemistry
University of Cincinnati

Research Interests: membrane proteins; membrane biophysics; structural biology; electrophysiology, transporters and channels

Education: Bachelor of Science (Hons I), University of Sydney (2000); PhD, University of Sydney (2004)

Summary of Professional Experience: Postdoctoral Fellow, Department of Biochemistry and Molecular Biophysics, Columbia University (2004-2005), Postdoctoral Fellow, National Institute of Neurological Disorders and Stroke (2005-2007); Postdoctoral Fellow, School of Medical Sciences, University of Sydney (2007-2009), Associate Professor, School of Medical Sciences, University of Sydney (2010-2017), Professor of Biochemical Pharmacology, (2018-present), School of Medical Sciences, University of Sydney

Awards, Honors and Activities: National Health and Medical Research Council CJ Martin Postdoctoral Fellowship (2005-2009); Young Investigator Award, Lorne Protein Conference (2008); National Health and Medical Research Council Career Development Fellowship (2009-2014); AK McIntyre Prize, Australian Physiological Society (2010); NSW Tall Poppy Award, Australian Institute of Policy and Science (2012); Editorial Board member, Pharmacology & Therapeutics (2016-2021); Editorial Board member, Journal of General Physiology (2016-2019); Academic Director, Science in Australia Gender Equity Program, University of Sydney (2017-2022); Inclusion and Diversity Officer, International Transmembrane Transporter Society (2018-present); Secretary-General of the Asian Biophysics Association (2018-2023); Co-Chair of the Asian Biophysics Association Meeting (2018); Organization for Economic Cooperation and Development (OECD) Women in STEM Engagement Group (2019-2023); Supervisor of the Year Award, Sydney University Postgraduate Representative Association (2021); Vice-President, International Transmembrane Transporter Society (2022-present); Secretary, Lorne Conference on Protein Structure and Function (2022-present); Vice Co-Chair, Membrane Transport Proteins, Gordon Research Conference (2022); Nancy Millis Medal, Australian Academy of Science (2023); Member of the Order of Australia (2023); Australian Museum Eureka Prize for Outstanding Mentor of Young Researchers (2023); Sharona Gordon Award for Transformational Leadership, Society of General Physiologists (2023); Fellow of the Royal Society of NSW (2023); Australian Research Council Future Fellowship (2023-2027); Co-Chair, Membrane Transport Proteins, Gordon Research Conference (2024); Biochemical Society International Award (2025)

Biophysical Society Activities: Member since 2006, Member of Channels, Receptors and Transporters and Membrane Transport Subgroups; Speaker, BPS Annual Meeting (2007); Australian Ambassador to the Biophysical Society (2022-2024); Chair and Speaker, "The role of funding bodies in driving institutional culture change" panel, BPS Annual Meeting (2023); Chair-Elect, Channels, Receptors & Transporters Subgroup (2024); Chair, Channels, Receptors and Transporters Subgroup (2025)

Candidate Statement: It would be an honor to serve on the Biophysical Society Council. I attended my first meeting in 2007 where I remember being blown away by the breadth of great biophysics research and the welcoming BPS community. I have seen this improve over time which is testament to the leadership of BPS. It is not easy to make a large Society feel welcoming and inclusive

BPS has provided me with wonderful opportunities to connect with fellow researchers, develop collaborations and be exposed to cutting-edge biophysics research. The BPS Subgroups are a wonderful opportunity for colleagues to connect and grow their local communities, but biophysics is a true multidisciplinary field. I am excited about promoting ways for the Subgroups to cross-pollinate and to promote biophysics to the general public, and students. I am also passionate about improving diversity and inclusion in biophysics and providing opportunities for the next generation of biophysicists to thrive. I am excited to further contribute to a Society that clearly shares these values and provides key platforms for these issues to be discussed and tangible actions to improve diversity and inclusion in our community.

To truly be an international Society, we need broad representation and to improve access to our Society for all. As the Australian Ambassador for BPS (2022-2024) and secretary of the Asian Biophysics Association (2018-2023), I am committed to growing biophysics in Australia and the Asia-Pacific region and to promoting better connections between our region and the international biophysical community. I look forward to serving the biophysics community through this role to contribute to the growth and sustainability of this welcoming and inclusive community.

Research Interests: protein quality control; protein degradation/disaggregation; AAA+ bio-molecular machines; chaperonin-assisted protein folding; allosteric communication; protein translocation; protein-protein interactions; molecular dynamics simulations; machine learning

Education: BSc, Physics, University of Bucharest, Romania, 1994; PhD, Physics, The Pennsylvania State University, 1999

Summary of Professional Experience: Postdoctoral Fellow, Chemical Physics, University of Maryland, Institute of Physical Science and Technology, 2000-2001; Research Fellow, National Institute of Health, Division of Intramural Research of the National Heart, Lung, and Blood Institute, 2002-2006; Assistant Professor, University of Cincinnati, Department of Chemistry, 2006-2012; Associate Professor, University of Cincinnati, Department of Chemistry, 2012-2023; Professor, University of Cincinnati, Department of Chemistry, 2023-present

Awards, Honors and Activities: Fellow of the Graduate College, University of Cincinnati, 2024; Lowenstein Award, University of Cincinnati, Department of Chemistry, 2016; National Science Foundation Career Award, National Science Foundation, 2010-2015; Intramural Research Training Award Fellowship, National Institutes of Health, 2002-2006; Lenfant Biomedical Fellowship Award, National Heart, Lung, and Blood Institute, 2005-2006; Graduate Program co-Director, University of Cincinnati, Department of Chemistry, 2021-2024; Member of the American Physical Society, Member of the American Chemical Society

Biophysical Society Activities: Society Member, 2003-2004, 2011-present; Subgroup member, Macromolecular Machines & Assemblies, 2018-present; participant in Annual Meetings

Candidate Statement: It is an honor to be nominated as a candidate for the Biophysical Society Council. As an academic researcher with computational focus, I recognize the important interdisciplinary aspect of biophysical research and the need for the Biophysical Society to provide a forum for scientists with diverse backgrounds and research interests from across academic departments and industry. I had the privilege of mentoring graduate students and postdoctoral fellows who subsequently pursued careers in academia, government or industry, which highlighted the need for broad training and networking opportunities for early-career researchers. In my experience, an effective training approach was to develop tutorials and courses that introduced students to the increasing application of machine learning and artificial intelligence (AI) in biophysical research.

I am particularly enthusiastic about broadening the participation of underrepresented groups through mentoring and hands-on experience. In the past 18 years, my lab has hosted many undergraduate students from Historically Black Universities and Colleges for Summer research experiences. Most of these students have pursued graduate studies and transitioned to successful professional careers. Expanding the opportunities available to these young scientists would increase their chances of success and strengthen the biophysical community over the long term. The Biophysical Society Meeting is an ideal setting for such opportunities through interaction with diverse researchers from around the world. As a Council Member, I look forward to expanding opportunities for broad groups of researchers, at both early and established career stages, to participate in the activities of the Biophysical Society. My specific focus would be on initiatives that emphasize tighter integration of computational modeling and experimental approaches, with particular attention to the use of machine learning/AI.



Eric J. Sundberg
School of Medicine Endowed Professor and
Chair
Department of Biochemistry
Emory University School of Medicine



Da-Neng Wang
Professor
Department of Cell Biology
NYU Grossman School of Medicine

Research Interests: Protein and glycoprotein biophysics and structural biology, glycobiology, enzyme and protein engineering

Education: BS in Biochemistry & BA in Economics, University of Rochester (1994); PhD in Biochemistry, Northwestern University (1999)

Summary of Professional Experience: Postdoctoral Fellow, Center for Advanced Research in Biotechnology-University of Maryland Biotechnology Institute, 1999-2002; Assistant Professor, Center for Advanced Research in Biotechnology-University of Maryland Biotechnology Institute, 2002-2004; Scientist, Boston Biomedical Research Institute, 2004-2009; Principal Scientist, Boston Biomedical Research Institute, 2009-2011; Associate Professor, University of Maryland School of Medicine, 2011-2016; Professor, University of Maryland School of Medicine, 2016-2019; Professor and Chair, Department of Biochemistry, Emory University School of Medicine, 2019-present; School of Medicine Endowed Professor, Department of Biochemistry, Emory University School of Medicine, 2022-present

Awards, Honors, and Activities: National Science Foundation International Travel Grant, 1996; North Atlantic Treaty Organization - Advanced Studies Institute Conference Grant, 1996; Gramm Travel Fellowship Award, Northwestern University, 1997; NIH-NRSA Predoctoral Training Grant in Molecular Biophysics, 1996-1998; NIH-NRSA Postdoctoral Training Fellowship (declined in favor of Arthritis Foundation), 2000; Arthritis Foundation Postdoctoral Fellowship, 2000-2003; Elsa U. Pardee Foundation Cancer Research Award, 2005-2006; Simeon J. Fortin Charitable Foundation Cancer Research Award, 2006; Alexander von Humboldt Fellowship for Experienced Researchers, 2012-2015; American Asthma Foundation Scholar Award, 2013-2016; Teaching Commendation – Host Defenses & Infectious Diseases, UMSOM, 2014; Co-Organizer, Biochemical Society Focused Meeting "Structural Aspects of Infectious Diseases," Cambridge, United Kingdom, 2016; Co-Organizer, 47th Mid-Atlantic Macromolecular Crystallography Meeting, Baltimore, MD, USA, 2017; Member, Local Organizing Committee, 2018 IHV Annual Meeting, 2018; Co-Organizer, "Biophysicists Address COVID-19 Challenges", Biophysical Society Symposium, 2020; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein-Protein Interactions," Crete, Greece, 2023; Co-Organizer, "7th Molecular Perspectives in Protein Perspectives in Protein Perspectives in Protein Perspectives in Protein Perspective FASEB Microbial Glycobiology Conference, 2024; Special Emphasis Panel ZAI1-RRS-A-J1 (HIVRAD P01) Study Section, NIH, 2012; Special Emphasis Panel ZAI1 QV-I (M2) 1 (P01) Study Section, NIH, 2015-2016; Special Emphasis Panel ZRG IMM T(90) Study Section, NIH, 2017; National Cancer Institute, NIH, Cancer Center Site Visit Team, 2018; Bacterial Pathogenesis (BACP) Study Section, NIH, 2018-2019; NIH Director's New Innovator Award (ZRG1 MOSS-R70) Study Section, NIH, 2019; Cellular and Molecular Immunology - A (CMIA) Study Section, NIH, 2019

Biophysical Society Activities: Society member since 2013; Member, Public Affairs Committee, 2014-2024; Chair, Public Affairs Committee, 2018-2024

Candidate Statement: I am honored to be nominated for the Biophysical Society Council. I consider BPS to be my scientific home and, since becoming a BPS member, I have not missed an Annual Meeting. I have had the pleasure and honor of serving BPS as a member of the Public Affairs Committee (PAC) for the last ten years, and as Chair of the PAC for the last six years. During this time, we launched the Congressional Fellows program that supports one to two BPS members per year on Capitol Hill to work in a Representative's or Senator's office or in a Senatorial Committee. Not only has this program provided BPS a tangible connection to what is happening on the Hill, but it has invariably served as a springboard for our Fellows to launch their careers in science policy - I think we can all agree that we need more scientists in policy and politics. During my time on PAC, we have organized Hill visits for our members, advocated tirelessly for sustained increases in the federal science budget, integrated our BPS Ambassadors from around the world, organized workshops and panel discussions at the Annual Meeting on science communication, grant writing, the intricacies of the federal budget, the state of postdoctoral fellows, and many other topics. It is these activities throughout the year and at the Annual Meeting that have been most rewarding to me - allowing me to help connect BPS members to one another and BPS to the world. After such a long stint on PAC and with a desire to continue to serve BPS, I embrace this potential opportunity to serve on the BPS Council in order to extend and enhance my ability to help establish and grow connections between our members and between our society and the world.

Research Interests: Molecular mechanism of membrane transporters, membrane protein structure determination by cryo-EM

Education: B. Sc., Physics (1982), Northeastern University, Shenyang, China; M.Sc. Electron Microscopy (1984), Chinese Academy of Sciences; Ph.D. Structural Chemistry (1988), University of Stockholm, Sweden

Summary of Professional Experience: Postdoctoral Fellow (1988-1990), Staff Scientist (1990-1995), European Molecular Biology Laboratory, Heidelberg, Germany; Assistant Professor (1995-2004), Associate Professor (2005-2008), Professor (2008-present), New York University School of Medicine; Program Coordinator, Structural Biology Program (2008-2013), Metabolic Signaling Program (2014-2021), Skirball Institute, New York University School of Medicine

Awards, Honors and Activities: Kazato Young Electron Microscopist Award (1986); Chinese Academy of Science Award (1987); Chinese National Science Prize (1987); Chien-Shiung Wu Prize (1987); Wallenbergs Stiftelse Fellow (1987); Whitehead Fellow (1997); K.H. Kuo Prize (2002); ad hoc Member, -24 NIH Study Sections and Special Emphasis Panels (2002-2024); Lennart Philipson Award on Collaborative Research (2007, 2009); Permanent Member, NIH Study Section on Biochemistry and Biophysics of Membranes (2008-2012); Referee, European Research Council Review Panel LS1 (2008-2013); Scientific Advisor, Mid-Atlantic Membrane Protein Structural Biology Consortium (2010-2015); Member, College of Reviewers for the Canada Research Chairs Program (2011-2016); Member, Commission on Electron Crystallography, International Union of Crystallography (2011-2017); Member, Scientific Advisory Board, TransCure, University of Bern (2011-2023); Peter C. Maloney Lecture (2014); ad hoc Member, Board of Scientific Counselors, National Institute of Neurological Disorders and Stroke (2015); Member, Faculty of 1000 (2016-present); TESS Research Award (2021); Member, Nominating Committee, The Protein Society (2022-present); Councilor, International Transmembrane Transporter Society (2022-present)

Biophysical Society Activities: Society Member since 1994; Subgroup Meeting Speaker (1994, 2012), Symposium Speaker (2004, 2014, 2022); Member, Publications Committee (2006-2018); Chair, Publications Committee (2012-2015); ex officio Member, Finance Committee (2012-2015); Member, Steering Group on the Cryo-EM Subgroup (2015-2016); Member, Advisory Board on BPS-IOP eBook Series (2017-2022); Member, Thematic Meetings Committee (2018-present)

Candidate Statement: BPS is my scientific home and I have been a member since my post-doc days in Germany, even before moving to this country. I would like to serve on the Council (1) to move biophysics forward in the ever-changing world, (2) to promote the younger generation of biophysicists and (3) to increase the diversity in BPS.

Over the years, I have served the BPS community in various roles, in which I always made great efforts toward the above goals. When I was the Chair of the Publications Committee, we initialized the BJ Paper of the Year Award for the *Biophysical Journal*, which is now given to an early-career PI each year. We also set up the Student and Postdoc Poster Awards at the BPS Thematic Meetings, which help to highlight the achievements of young scientists. In 2015, I was a member of the Steering Committee that initialized the Cryo-EM Subgroup. While serving on the BPS-IOP eBook Advisory Board, I recruited Bob Glaeser, Eva Nogales and Wah Chiu to edit the book "Single Particle Cryo-EM of Biological Macromolecules", which became a classic in the field and also the most downloaded book in the series. Finally, in the first year of the Covid-19 pandemic, David Sauer, a postdoc in the lab, and I organized the BPS online networking event "Membrane Transport Mini-Symposium for Early-Career Scientists," which attracted over 400 attendees and provided a platform for several young stars to shine during that difficult period.

Today, the field of biophysics faces a number of challenges but also offers many opportunities. I want to help biophysicists from different backgrounds and disciplines and, particularly, to promote the younger generation. By working together, the biophysics community will be stronger and BPS will continue to thrive.