

PRESIDENT-ELECT NOMINEE

**VOTE FOR ONE** 

### Ruben L. Gonzalez, Jr.

Professor Department of Chemistry Columbia University, USA

**Research Interests:** the role of structural dynamics in biological mechanisms; ribosome dynamics and the mechanisms of translation and translational control in bacteria and eukaryotes; RNA folding and dynamics and the mechanisms of RNA-mediated control of gene expression; transporter dynamics and the mechanisms of transmembrane transport; single-molecule fluorescence approaches; steady-state and time-resolved cryogenic electron microscopy approaches

**Education:** BS Chemistry, Florida International University (FIU), 1995; PhD Chemistry, University of California (UC) Berkeley, 2000.

**Summary of Professional Experience:** Postdoctoral Fellow, Structural Biology and Physics, Stanford University, 2000–2005; Professor of Chemistry, Columbia University, 2006–present; Founder and Director, Columbia University Precision Biomolecular Characterization Facility (PBCF), 2017–present; Member, Columbia University Provost's Advisory Council for the Enhancement of Faculty Diversity, 2011–present; Fellow, Columbia University Provost's Leadership Fellows, 2019–2021.

Awards, Honors, and Activities: National Institutes of Health (NIH) Minority Biomedical Research Support (MBRS) Research Initiative for Scientific Enhancement (RISE) Grant, FIU, 1994; FIU Chemistry Department Outstanding Senior Award, 1995; American Chemical Society (AĆS) FİU Chapter Outstanding Senior Award, 1995; Cum Laude, FIU, 1995; UC Berkeley Graduate Opportunity Fellowship, 1995; UC Berkeley Outstanding Graduate Student Instructor Award, 1999; ACS Postdoctoral Fellowship 2001-2005; Burroughs Wellcome Fund Career Award in the Biomedical Sciences, 2004; National Science Foundation (NSF) CAREER Award, 2007; Member, NSF Molecular and Cellular Biology Study Section, 2007-2011; ACS Research Scholar Award, 2008; Organizer and Chair, Physical Chemistry II, Mid-Atlantic Region Meeting, ACS, 2008; Distinguished Columbia Faculty Award, 2009; Organizer and Chair, Chemical Biology Discussion Group Symposium on Ribosomes and Protein Synthesis, New York Academy of Sciences, 2009; Member, Faculty of 1000, 2010-2016; Member, 2010-2013, Vice Chair, 2013-2014, and Chair, 2014-2015, ACS RNA Mechanisms in Cancer Study Section; Dreyfus Teacher-Scholar Award, 2011; Editorial Board, J Mol Biol, 2011-present; Organizer and Chair, Translation and Translational Control Session, 2011 Madison Meeting on Bacterial and Phage Molecular Genetics, 2011; Member, Organizing Committee, 2014 American Society of Biochemistry and Molecular Biology (ASBMB) Annual Meeting, 2013: Alumnus Member, Phi Beta Kappa, 2014: Finalist, Blavatnik Awards for Young Scientists, 2014; Scientist to Watch, The Scientist, 2014; Member, 2015-2017 and Chair, 2017-2019, NIH Molecular Genetics A Study Section; Reviewing Editor, eLife, 2020-present; Co-Organizer, Joachim Frank's 80+ Birthday Symposium, 2022-present; Co-Organizer, 2023 Protein Society Meeting, 2022-present.

Biophysical Society Activities: Member, Biophysical Society (BPS), 1995-present; Committee on Inclusion and Diversity (CID) Travel Award, 1995; Reviewer, Biophysical Journal, 2006-present; Member, BPS Macromolecular Machines and Assemblies Subgroup, 2003-present; Member, BPS Biological Fluorescence Subgroup, 2009-2013; Speaker, BPS Annual Meeting Platforms, 2009 and 2018; Chair and Speaker, BPS Annual Meeting Platforms, 2010 and 2016; Speaker, BPS Annual Meeting Symposia, 2013, 2017, and 2019; Speaker, BPS Travel Award Reception, 2013; Member, BPS Nanoscale Approaches to Biology (Nanoscale Biophysics) Subgroup, 2013-present; Member, BPS Committee on Inclusion and Diversity (CID), 2013-2016; Member, BPS Council, 2017-2020; Member, BPS Annual Meeting Program Committee, 2018-2021; Invited Speaker, BPS Thematic Meeting: Revisiting the Central Dogma of Molecular Biology at the Single-Molecule Level, 2019; Co-Founder, Ignacio Tinoco Award of the BPS, 2019; Presidential Panel to Advise Publications Committee on Biophysical Journal, 2020; Faculty Advisor, Columbia University BPS Chapter, 2022.

**Candidate Statement:** I attended my first Biophysical Society (BPS) meeting in 1995, in San Francisco, as an undergraduate student. Attending this meeting was career defining for me and gave me my first glimpse at the crucial and central role that BPS and its members, committees, programs, and meetings can play in shaping and enabling so many of our careers. I was able to attend, in part, because of a Travel Award that I received from what was then known as the Minority Affairs Committee (MAC). This was my first scientific meeting ever, and the first event I attended was the Travel Awards Reception, where I met other student awardees, long-standing BPS and MAC members, and BPS leadership. Over the next few days, I attended many talks and presented a poster on my studies of the structural and physical properties of the junction between B- and Z forms of DNA.

Fast forward 17 years. I have since attended, and presented posters or spoken at, 13 BPS Annual Meetings. I have served on MAC, now known as the Committee on Inclusion and Diversity (CID). I have presented CID Travel Awards to new student members myself and have even served as the speaker at the 2013 Travel Awards Reception—to this day it remains the first event I attend at every BPS Meeting. More recently, I was given the opportunity to serve on Council and work on empowering the broader activities of BPS members, committees, and programs. If elected President, I will continue to support the core aspects of BPS's mission, vision, and values that were already evident to me at that first meeting; bolster BPS's ongoing efforts to extend its reach among an ever-growing diversity of scientists across the globe; and work to help BPS address the challenges of the current time, many of which have been exacerbated by the COVID-19 pandemic and recent focus on social justice issues. Specifically, I will concentrate my efforts on three inter-related objectives: (i) promoting scientific excellence; (ii) increasing diversity, equity, and inclusion; and (iii) building community.

The COVID-19 pandemic has magnified the important contributions that biophysicists and other molecular life scientists can make to tackle global crises. Central to these efforts is the coming together of different scientific communities working on various aspects of the pandemic and closely related problems, and the rapid sharing of data and information. Due to its position at the intersection of the physical and life sciences, BPS is uniquely poised to support these efforts. As President, I would encourage and facilitate investment in those aspects of BPS meetings and programs that would enhance the Society's inherent abilities to foster interdisciplinary, collaborative, networks of biophysicists and to provide forums for the rapid and effective dissemination of methods, data, and findings. Such developments would best enable BPS members to use their collective talents and skills to tackle the increasingly global scientific challenges we face. Pre-pandemic disparities in health care, criminal justice systems, education, and professional opportunities have been intensified by the pandemic. To do its part in addressing these issues, BPS has developed a strong track record of supporting programs aimed at increasing diversity, equity, and inclusion in biophysics and in the Society. Over the decade and a half that I have been involved in BPS, I have seen these efforts grow and broaden, including an increasing focus on engaging with and including a global community of biophysicists. The current moment, in which these disparities have been exposed on a global scale, presents a unique opportunity for BPS to accelerate and intensify these activities, and I think this should be one of our top priorities.

A common theme running through the objectives described above is one of building community. I would broaden this theme to include mentorship of junior biophysicists. Here again, the worldwide attention on severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), COVID-19, and the response of the scientific and medical communities have brought renewed interest to biophysics and other molecular life sciences. Now is the time for BPS to attract, inspire, and train the next generation of biophysicists, Society members, and scientific leadership. The past two and a half years have brought, and exposed, tremendous challenges, but opportunities described above are forward-looking and built on great optimism for the future.





PRESIDENT-ELECT NOMINEE

**VOTE FOR ONE** 

### Gabriela K. Popescu

Professor
Department of Biochemistry
Jacobs School of Medicine & Biomedical Sciences
University at Buffalo, USA

**Research Interests:** neurotransmission; electrophysiology; single-molecule kinetics and thermodynamics; NMDA receptors: biophysics, pharmacology, and physiology.

**Education:** BS/MS Chemistry, University of Bucharest (1985); PhD Biochemistry, University at Buffalo (1999)

**Professional Experience:** NRSA Postdoctoral Fellow, University at Buffalo (2000-2005); Professor of Biochemistry, University at Buffalo, SUNY (2006 – Present).

Awards, Honors, and Activities: NIH NRSA F32 Fellow (2001-2004); AHA Scientist Development awardee (2010-2014); NINDS individual research grants (R01, R03) (2006–2024); Editorial Board: Biophysical Journal (2020-2024), Journal of Neuroscience (2017-2021), Journal of Neuroscience (2013-2016); AHA Study Section member (2006-2012); NIH Study Section service: F04B (chair, 2021); NTRC (2014-2020); BPNS (2012, 2013); AAMC Board of Directors (2018-2022); AAMC Council of Faculty and Academic Societies (Chair, 2017-2023); AAAS Section N (Medical Sciences) Steering Committee (2018-2024).

**Biophysical Society Activities:** Society member since 2003; Symposium speaker (2009, 2011, 2015); Committee for Professional Opportunities for Women (CPOW) member (2011–2015); Council member (2015–2018) and Strategic Planning retreat (2017); CPOW Chair (2015–2021); Awards Committee member (2020); Biophysical Journal Associate Editor (2021–2023).

Candidate Statement: The Biophysical Society is well described for me by the phrase "by the members, for the members, with the members". The Biophysical Society is a community: the public square where we sound out preliminary observations and ideas; the village we all need to thrive and evolve; and the collective voice with which we can make a difference in the discipline, in science, and in society. In asking for your vote, I am also asking for your help to continue making this community stronger: more diverse, more inclusive, and more connected. Specifically, I would be thrilled to work with you to reinforce existing interactions among members, and to develop new such connections across the career span, across the globe, and throughout the year.

Across the career landscape

In science, and specifically in quantitative fields such as biophysics, the barriers to entry remain high and uneven. Moreover, our professional trajectories are littered with inherited biases, and occasionally spiked with steep and unexpected cliffs and ravines. We would be well–served to continue mentoring and nurturing trainees, junior scientists, and members from marginalized groups; to increase the support available for career transitions for all our members; and to begin supporting each other when personal challenges threaten our professional lives.

Over the past 10 years, though my direct engagement with the Committee for Professional Opportunities for Women, I was privileged to work with many of you and to witness first-hand how even small changes "by the members, for the members, with the members" can help individual scientists and therefore science at large. As an example, collaborating more closely with other committees, specifically with the Education Committee, the Early Careers Committee, and the Committee for Inclusion and Diversity, we were able to coordinate events, share resources, and respond more nimbly to the changing needs of our members. Through these broad interactions, I heard directly about specific concerns and suggestions for improvement and was able to work with many of you to update and expand the Society's Code of Conduct, develop a symposium on combatting sexual harassment, and more recently create an Awards and Fellow Revocation Policy and develop the BPS Ethics Guidelines.

In the future, these existing committees can be even more effective by connecting and collaborating with like-minded organizations such as the Society for Latinoamerican Biophysicists, Black in Biophysics, and others, to first learn about common and specific needs and then find ways to meet them by working together.

As discoveries and technological advances continue, many more of us will change course, will reconsider the approaches we use in the lab, and even the research area in which we work. It has been a strength of the Society to facilitate our access to new methods and instrumentation. We must continue to offer hands-on training in developing technologies and approaches, as well as resources for education and for teaching these innovations in the classroom. At times, I was surprised to learn that not all our members are adequately informed about the resources that the Society already offers. It would be an easy lift to better disseminate these resources and engage more of our members in contributing to an evolving repository.

Lastly, as our working life expectancy increases, so does the probability that we will experience challenging transitions, whether exciting or depressing, in funding, rank, geography, type of employment, and many others. This diversity of our members' professional experiences is a strength of the Biophysical Society. Many of our members joined as students and continue to contribute in many ways from retirement. We must continue to honor this diversity and to ensure that we serve and engage all our members across the professional lifespan, so that we can each contribute when we can, and trust that we will be supported in times of need.

Across the globe

One of the many strengths of the Biophysical Society is its international scope. We can do more to increase the engagement and number of our non-US members, to better leverage the diversity of experiences they bring to our community, and to better serve their needs. In recent years, Thematic Meetings, Student Chapters, and the activities organized during Biophysics Week have been successful in connecting us across nations and time zones. We must continue to support these activities. I would look forward to working with the Society's leadership, its standing committees, and local biophysical societies to engage and serve a more broadly international membership.

Throughout the year

Lastly, I believe it will be important to think of new ways in which the Society can offer value to our members outside of its signature Annual Meeting. Most of us were introduced to the Society with our first participation at the Annual Meeting, and this event remains the center of gravity for many member activities and interactions. Over the past two years, we have become more accustomed to and accepting of virtual interactions, and I would like to explore how we can leverage online meetings and webinars to offer more value to our members with pre- and post-meeting events, to maintain year-round engagement and a coherent sense of community. Moreover, such events can be more targeted to specific goals or membership segments, such as engagement across generations, international collaborations, mentorship, or advocacy.

Certainly, every one of the above objectives will require your backing, additional direction and input from Council, and the tireless dedication and extensive knowledge of our experienced and devoted staff. As I write this, efforts are under way to develop a new Strategic Plan, which will guide and help prioritize our efforts for the immediate future. Yet, we should keep in mind that plans are only as good as our assumptions, and we must be prepared for unexpected challenges. I cannot think of a better preparation than a strong cohesive community that rallies to support each other. In asking for your vote, I am asking for your trust to coordinate and lead this effort.



**VOTE FOR ONE** 

SECRETARY NOMINEE



Teresa Giraldez

Department of Physiology
Universidad de La Laguna, Tenerife, Spain

**Research Interests:** ion channel biophysics and physiology; control of neuronal excitability; calcium signaling in subcellular domains.

**Education:** BS, Biochemistry, Oviedo University, Spain, 1996; PhD, Biochemistry & Biophysics, Oviedo University, 2001; Postdoctoral Fellow, Department of Cellular & Molecular Physiology, Yale University, 2002–2006.

**Summary of Professional Experience:** Research Instructor, Pharmacology, University of La Laguna (ULL), Spain, 2006–2008; Group Leader, University Hospital Candelaria/National Health Institute, 2008–2014; Ramon y Cajal Associate Professor, Department of Physiology, ULL, 2014–2019. Deputy Director of the Biomedical Technologies Research Institute ULL, 2015–2018. Tenured Professor of Physiology, 2019–present.

Awards, Honors, and Activities: Miguel Servet Research Award, 2008-2014; BPS Margaret Oakley Dayhoff Award, 2009; L'Oreal-UNESCO National Award, 2009; IZASA-Beckmann-Coulter Research Award, 2011; Ramón y Cajal Research Award, 2014-present; IUEM Research Award, 2015; ERC-Consolidator Grant Award, 2015-2020; Appointed member of the National Agency of Research (AEI, Spain) BMC study section, 2019-present. Review Editor: eLife (2020-present), The Journal of General Physiology (2017-present). Organizer of several international meetings/symposia since 2011.

Biophysical Society Activities: Society member and attended most Annual Meetings since 2002; Council member, 2017-2020; BPS Program Committee member, 2020-2022; Channels, Receptors and Transporters (Membrane Biophysics) Subgroup Executive Committee, 2015-2018; Chair, Membrane Biophysics Subgroup, 2017; member, Committee for Professional Opportunities for Women (CPOW), 2010-2016; Organizer, Career Roundtable Luncheon, 2011-2014. Scientific Mentor, Mentoring for Science Program, 2012; Moderator, Postdoc to Faculty Q&A Transitions Forum/Luncheon, 2013, 2016; Organizer, Discussion Panel CPOW, 2014; SRAA poster judge, 2016-2017. Member, Membership Committee, since 2019; member, Thematic Meetings Committee, 2020-2022.

Candidate statement: I feel privileged to serve the Biophysical Society and its exceptional scientific community. The BPS Annual Meeting constitutes an invaluable resource not only for US but also for international biophysicists to keep up-to-date with cutting-edge research and innovation thanks to an outstanding scientific program every year. The Society's extended activities allow our broad membership community to improve teaching, training, and mentorship skills; they also contribute to the promotion of biophysics in society. I have always been greatly motivated and inspired by the diverse community and integrative spirit of the Society, which I will continue supporting as Secretary among all aspects stated above.



COUNCIL NOMINEES VOTE FOR FOUR



Margaret S. Cheung
Professor
Department of Physics
University of Houston, USA



Alberto Diaspro
Professor
Department of Physics, University of Genoa, Italy
Pl and Research Director
Nanoscopy, Istituto Italiano di Tecnologia, Italy

**Research Interests:** theoretical biological physics, emergent protein behavior and assemblies in a cell, calmodulin-dependent calcium signaling, protein-mediated remodeling of actomyosin networks, and bio-inspired organic photovoltaics.

**Education:** BS, Chemistry, National Taiwan University, 1994; PhD, Physics, University of California, San Diego, 2003.

Summary of Professional Experience: Alfred P. Sloan Foundation Postdoctoral Fellow, University of Maryland, College Park, 2003–2006; Assistant Professor of Physics, University of Houston, 2006–2012; Associate Professor of Physics, University of Houston, 2012–2017; Professor of Physics (with courtesy appointments in Chemistry and Computer Science), University of Houston, 2017–2022; Moores Professor of Physics, 2018–2022; Scientist, Environmental Molecular Laboratory Sciences, Pacific Northwest National Laboratory, 2020–present; Senior Scientist, Center for Theoretical Biological Physics, Rice University, 2012–present; and Affiliate Professor of Physics, University of Washington, Seattle, 2020–present.

Awards, Honors, and Activities: Book Coupon Award, National Taiwan University, 1990, 1991; Postdoctoral Fellowship, Alfred P. Sloan Foundation, 2003-2006; Robert S. Hyer Research Award, Texas Session of the American Physical Society, 2010, 2019; Fellow of the American Physical Society (APS), 2013; New Faculty Award, University of Houston, 2006; Excellence in Research and Scholarship, University of Houston, 2012, 2016; Moores Professorship, University of Houston, 2018-2022; Chair, Protein Folding Dynamics, Gordon Research Conference, 2020; Organizer, Focus session on "Hydrophobic Interactions in Multiple Scales for Biology" at the annual March meeting of the APS, 2008, Focus session on "Simulations and Theories for Biomolecules under Cell-like Conditions" at the annual March meeting of the APS, 2009; Member-at-large, Division of Biological Physics, APS, 2010-2013; Chair-Line, Division of Biological Physics, APS, 2020-2024; Counselor of the Executive Committee, The Protein Society, 2021-2024; Associate Editor, Reviews of Modern Physics, 2014-2022; Guest Editor, Current Opinions in Structural Biology, Folding and Binding, 2021; Faculty advisor, STEM Teaching Equity Project (STEP) at the University of Houston, 2012-2017; Faculty member of the steering committee, Houston Area Molecular Biophysics Training Program, 2013-2020; Outreach Director, Center for Theoretical Biological Physics, Rice University, 2013-2021; Co-Organizer, National Science Foundation Virtual Workshop: Growing Equity, Inclusion, and Diversity for the Physics of Living Systems Student Research Network, 2020; Faculty mentor of the Physics of Living Systems Physics Teacher Network, 2020-2021; Chair, Faculty Mentoring Committee, The Louis Stokes Alliances for Minority Participation (LSAMP) Scientist Program, University of Washington, Seattle, 2021-present.

**Biophysical Society Activities:** Society Member, 2001-present; Organizer, memberorganized session on "Biopolymer Dynamics in Cell-like Environment" at the Annual Meeting of the Biophysical Society, 2010; Founding Chair, Biopolymers in vivo Subgroup, 2011-2012; Member, Education Committee, 2012-2015; Program Chair, Biopolymers in vivo Subgroup, 2016-2017; Member-at-large, Biopolymers in vivo Subgroup, 2018-2021. Editorial Board member, Biophysical Journal, 2018-present.

Candidate Statement: The Society has provided me with invaluable opportunities to explore new research directions and to serve this wonderful community, which have always been beneficial to the growth of my career. If I am fortunate enough to be elected a Council Member, I will ensure that the Biophysical Society continues to make gains in scientific excellence through this global pandemic by broadening the participation of its members at all career levels. This will be achieved through building an inclusive community equitable to biophysicists with diverse expertise and backgrounds. As a Council Member, I look forward to working with the Biophysical Society Council to help this fantastic organization continue to fulfill the professional needs of its members by partnering with institutions of higher education, industry, government laboratories, and other sectors, and to grow the ecosystem of biophysics and fixing leaky pipelines by tapping the pool of students from historically underserved or economically disadvantaged backgrounds.

**Research Interests:** Main scientific interests are related to the design, realization and utilization of fluorescence and label-free multimodal advanced optical microscopes to study chromatin organization and neuronal trafficking from the micro- to the nanoscale.

**Education:** Doctoral "Laurea" degree in Electronic Engineering, Dept. of Biophysics and Electronic Engineering, University of Genoa, Italy, 1983.

Summary of Professional Experience: (2018-present) Full Professor of Applied Physics at the Department of Physics of the University of Genova; (2018-present) Academic of the Ligurian Academy of Sciences and Humanities, Class of Sciences; (2014-present) Scientific Director Nikon Imaging Center at IIT; (2009 – present) Research Director of the Dept. of Nanophysics at the IIT, PI, Deputy Director at IIT; (2007-2012) Research Director on Microscopy and Nanoscopy of Biomolecules, IFOM-FIRC, Milan, IT; (1989-2000) Short research activities at Drexel University (Philadelphia), Universidad Autonoma de Madrid (Spain), Czech Academy of Sciences (Prague), Laboratory for Flourescence Dynamics (LFD), Dept. Physics, University of Illinois (Urbana-Champaign), (1987-1988) Scientific Consultant on 3D Microwave scattering of metallic objects, Aeritalia SaiPa, Turin, IT, (1983-1987) Automated Systems Research and Development consultant - Orsi Automazione, IT.

Awards, Honors, and Activities: (selected) (2022) Gregorio Weber Award for Excellence in Fluorescence studies; (2021-present) President of the Italian Society of Pure and Applied Biophysics, SIBPA); (2019) SIF (Italian Physical Society) Scientific Communication Award; (2016) OSA-Optica Senior Member; (2016-present) President of the Scientific Council of "Festival of Science", Italy; (2014) Biophysical Society Emily M. Gray Award in recognition of significant contribution to education in Biophysics; (2014) SPIE Fellow; (2011-2012) "Life in Science" Testimonial of Genoa Municipality; (2011) President of OWLS; (2009) President of EBSA (European Biophysical Societies' Association), (1994) IEEE Senior Member. Editor in Chief of Microscopy Research and Technique (Wiley). H=60 (Google Scholar), >250 invited talks. Dissemination activities: "Beyond Science" and "Pop Microscopy" exhibitions", and book "Expedition into the Nanoworld" (Springer 2022).

**Biophysical Society Activities:** Member since 1996. Member of the International Relations Committee (now Committee on Inclusion and Diversity). Founder (2010) and active member of the "Nanoscale Biophysics" Subgroup today "Nanoscale Approaches to Biology". Active member of the "Biological Fluorescence" Subgroup. Editorial board member of Biophysical Journal. Mentor of the Biophysics Genoa Student chapter.

Candidate Statement: I am enthusiastically honored to have the chance to serve the Society as a member of the Council. The BPS meetings have been and are a fundamental activity for the growth of my research group in terms of inspiration, interactions, and education. BPS has a crucial role in forming a new generation of scientists thanks to the experience of senior scientists within an international framework allowing them to expand their knowledge through diverse research and educational approaches. I would like to contribute to keeping the Society's role by increasing the richness given by merging different generations, cultures, and scientific practices. I will work to improve the robustness of the bridges toward international communities. Due to my specific experience, I will further promote the relationships between BPS and EBSA for a community without borders and keep diversity as a fundamental value to provide a better impact on the Society. I will work to improve connections between the research community and the Society using curiosity as a Trojan horse to attract people with particular attention to the young generation. I will put at the disposal of BPS my experience in different scientific and professional organizations considering as "my petit-prince rose" the perspective of the growth of our Society. Taking care of international research networks and early-career investigators with a concrete view of equal opportunities in terms of gender and cultural background, the relationship between pure and applied biophysics, and educational aspects are the key to a better future able to reduce inequalities among persons. This is in our DNA, and every day has to be reminded. "I paint landscapes, and I paint nudes, I contain multitudes." (Bob Dylan, I contain multitudes,



COUNCIL NOMINEES VOTE FOR FOUR



# Lukas Kapitein Professor Department Of Cell Biology, Neurobiology and Biophysics Utrecht University, Netherlands



Emmanuel Margeat
Research Director
Structural Biology Center
CNRS National Center for Scientific Research,
France

**Research Interests:** Motor proteins and the cytoskeleton, intracellular transport, self-organization, neuronal polarity, synthetic biology, super-resolution microscopy. My goal is to obtain a physical understanding of the mechanisms by which cells establish and maintain their precise shape and intracellular organization.

**Education:** Undergraduate: Physics, VU University Amsterdam. PhD, Biophysics, VU University Amsterdam.

**Summary of Professional Experience:** Postdoctoral Fellow, Erasmus Medical Center, Rotterdam, The Netherlands (2007–2011). Assistant Professor (2011–2016), Associate Professor (2016–2018), Full Professor (2018–present) in Molecular and Cellular Biophysics, Utrecht University, The Netherlands. Co-chair of Cell Biology, Neurobiology and Biophysics, Department of Biology, Utrecht University. Scientific Director, Biology Imaging Center, Utrecht University.

#### Awards, Honors, and Activities:

Awards: Biannual best PhD thesis award from the Dutch Society for Biophysics and Biomedical Technology (2007). Honors: ERC Starting Grant (2013), ERC Consolidator Grant (2018), NWO VENI fellowship (2007), NWO VIDI fellowship (2013), NWO VICI fellowship (2022). Activities: Program committee member and program committee co-chair, Dutch Biophysics (2015, 2016). Member of the Physics of Life Advisory Committee, Netherlands Organization for Scientific Research (2020-present). Program director of the MSc program Molecular and Cellular Life Sciences. Founding board member of the Eindhoven-Wageningen-Utrecht Alliance Center for Living Technologies.

**Biophysical Society Activities:** Society member and Motility Subgroup member, 2002-present; BPS Symposium Speaker 2021.

**Candidate Statement:** Using physics to understand biology is the goal of biophysics. Physical principles provide many possibilities to explore the organization and dynamics of living systems over a wide range of time and length scales, as shown by the many biophysics techniques for structural studies and microscopic analysis. Moreover, physical principles help us to conceptualize, understand and sometimes even predict the organization and dynamics of living systems. While working on a wide diversity of biological problems from the atomistic level up to entire populations, biophysicists are united in their vision that physics can provide unique tools and insights to achieve a deeper understanding. For all these biophysicists, the Biophysical Society is the leading light that helps to move the entire field forward by advocating the importance of biophysics, by publishing exciting papers, and by bringing researchers from all career stages and from all over the world together around both established and emerging topics at a large variety of meetings and events. For me, the 2003 BPS meeting in San Antonio was my first international conference and it made a long-lasting impact to see biophysics at its broadest, meet the researchers behind the papers, and to feel part of an international community. If elected as a council member, I will do my best to help ensure that both existing and emerging biophysicists will recognize, cherish, and support the Biophysical Society as their scientific home.

**Research Interests:** Single-molecule fluorescence microscopy and spectroscopy; single-molecule FRET; structure, dynamics and assembly of membrane proteins.

**Education:** Master in Physical Chemistry, University of Toulouse, France. PhD in Molecular & Structural Biology, University of Montpellier, France

**Summary of Professional Experiences:** Postdoctoral fellow, University of California at Los Angeles (2002-2003). CNRS Researcher (2004-2012) and CNRS Research Director (2013-present), Montpellier, France. Invited Professor (ESPCI Paris, 2011). Invited Researcher (Université de Montreal, Canada, 2018).

Awards, Honors, and Activities: CNRS Bronze medal (2009); Editorial Board member: Scientific Reports (2017-present). Reviewer or panel member for Agence Nationale de la Recherche (ANR) (France), European Research Council (ERC), National Science Foundation (USA). Treasurer (2017-2022) and Elected Council Member (2012-2022) of the French Biophysical Society (Société Française de Biophysique). Member of the steering committee of the National Infrastructure "FranceBiolmaging". Coordinator of the International Research Network "Physics of Living Systems" (France (CNRS) – USA (NSF) – Germany) (2014-2020). Organizer, Ecole de Physique des Houches "Fluorescent markers for advanced microscopies" (2018, 2022), French-German Biophysical Societies meeting (2019), French Biophysical Society Meetings (2014, 2018), FranceBiolmaging Advanced Training (2016), EMBO Practical Course "Superesolution" (2013), IRN "Physics of Living Systems" International Meeting (2017, 2022).

**Biophysical Society Activities:** Society member since 2000, regular attendee of the Annual Meetings. Member of the Public Affairs Committee since 2019. Chair of the session "People or Projects? Approaches to Funding Research" at the 2022 BPS meeting.

Candidate Statement: I am very honored to be nominated for this election as Biophysical Society Council member. Although I am now a CNRS research director in France, I always kept strong ties with the community of biophysicists in USA, since I first attended the Biophysical Society meeting in 2000 as a graduate student, and later by establishing collaborations with researchers at UIUC or USC, or during my postdoctoral stay at UCLA. Since 2014, I also served as coordinator for France of an International Research Network, funded by the NSF and the CNRS, on the topic of "Physics of Living Systems". International researchers represent one third of the Biophysical Society members. If elected, I will be committed to strengthening the links between the international and the American biophysicists communities. I will work to maintain and increase the representation of the members in all their diversity in the BPS meeting program, and in its governing bodies. I hope that BPS will benefit from my experience in leadership of professional organizations (such as my role as Council member and treasurer of the French Biophysical Society), and as organizer of high-profile meetings and practical courses on topics related to biophysics (Ecole de Physique des Houches, EMBO Practical Course, etc.). The Biophysical Society meeting is for me the most important scientific meeting to be in touch with the most cutting-edge research, and for stimulating interactions with my colleagues from all over the world. I have been attending this meeting regularly for 20 years. I then had the chance to serve as member of the BPS Public Affairs Committee since 2019, across the Covid-19 pandemic, at a time when it was particularly crucial to maintain strong ties and trust between the general public, politicians, funding agencies, and us as scientists. If elected as Council member, I would now be deeply honored and excited to contribute even more to the life and the influence of the Biophysical Society.



COUNCIL NOMINEES VOTE FOR FOUR



## Elizabeth Rhoades Professor Department of Chemistry, Department of Biochemistry & Biophysics

University of Pennsylvania, USA



Jerson L. Silva
Professor of Biochemistry
Institute of Medical Biochemistry Leopoldo de
Meis
Federal University of Rio de Janeiro, Brazil

**Research Interests**: intrinsically disordered proteins, single-molecule fluorescence, amyloid associated neurodegeneration

**Education:** BS, Physics, Duke University 1994; PhD, Biophysics, University of Michigan, Ann Arbor 2001

Summary of Professional Experience: Postdoctoral Fellow, Weizmann Institute of Science, Israel, 2001-2003; Postdoctoral Fellow, Cornell University, 2003-2006; Assistant Professor, 2006-2011, Associate Professor (on term), 2011-2014, Associate Professor (w/tenure), 2014-2015, Department of Molecular Biophysics & Biochemistry, Yale University; Associate Professor, 2015-2020, Professor, 2020-present, Department of Chemistry, University of Pennsylvania; Professor, 2020-present, Department of Biochemistry & Biophysics, Perelman School of Medicine, University of Pennsylvania

Awards, Honors, and Activities: Schupf Postdoctoral Fellow at the Weizmann Institute of Science, 2001-2002; National Science Foundation Postdoctoral Fellow, 2002-2003, Keck Foundation Postdoctoral Fellow, 2003-2004; Ellison Medical Foundation New Scholar Award, 2007-2011; Kavli Frontiers in Science Fellow, 2013; Michael and Kate Bárány Award from the Biophysical Society, 2019; co-organizer "Protein Nonfolding" session at the ASBMB annual meeting, 2015; Nominating Committee of the Protein Society, 2017-2020; Advisory Board of Biochemistry, 2021-present; Advisory Board of Structure, 2021-present; NIH Biophysics of Neural Systems Study Section member, 2017-2021; NIH Macromolecular Structure and Function B Study Section member, 2021-present; co-Chair Gordon Research Conference on Intrinsically Disordered Proteins, 2022; co-director Vagelos Program in Molecular Life Sciences, University of Pennsylvania, 2021-present; co-PI NIH T32 Structural Biology and Molecular Biophysics Training Grant, University of Pennsylvania, 2019-present; Chair Diversity, Equity and Inclusion Committee, Department of Chemistry, University of Pennsylvania, 2020-2021

**Biophysical Society Activities:** Society member since 1997; Biophysical Journal Editorial Board member, 2011-2017, Associate Editor of Proteins Section, 2017-present; member of Intrinsically Disordered Proteins Subgroup since 2007, Subgroup Secretary-Treasurer, 2013-2014, Subgroup Chair 2015-2016

Candidate Statement: I first attended the Biophysical Society Annual Meeting as a second year PhD student with a background in Physics who had only the vaguest idea of what 'Biophysics' was. I immediately felt that I had found my scientific home; my involvement with BPS has had a profound impact on my scientific development and career. With my term as an Associate Editor at the Biophysical Journal concluding at the end of 2022, I will be wrapping up more than 10 years of service and leadership at the journal and feel energized to take on a new leadership role by serving on Council. I think a traditional strength of BPS, exemplified in the Annual Meeting Program, is its support for cutting edge biophysics spanning from basic science to human health and engineering applications. As a member of Council, I would work to support and further these efforts, helping to keep BPS as a driver of innovation of research with important societal impact. Furthermore, I would prioritize supporting ongoing efforts and expanding the role of BPS in increasing accessibility and equity in scientific education and training. Specifically, I would work to enhance support for early career scientists and increase community for and participation by historically underrepresented groups.

**Research Interests:** Protein folding, protein misfolding, phase transitions and amyloidogenic diseases, prions, cancer, p53, neurodegenerative diseases, virus assembly, antiviral vaccines, and antiviral drugs.

**Education:** MD, School of Medicine, Federal University of Rio de Janeiro. 1985; PhD, Biophysics Institute, Federal Univ. Rio de Janeiro, 1987.

Summary of Professional Experience: Post-doctoral Fellow, University of Illinois, Urbana-Champaign, 1985–1986; Assistant, Associate, Professor of Biochemistry, Department of Biochemistry, Federal University of Rio de Janeiro (UFRJ), 1987–1996; John Simon Guggenheim Visiting Professor, Department of Biochemistry, University of Illinois, Urbana, 1991–1992; Professor of Biochemistry, Institute of Medical Biochemistry, Federal University of Rio de Janeiro, 1987–present; Chairman, Department of Biochemistry, Federal University of Rio de Janeiro, 1994–1997; Founding Director, Jiri Jonas National Center for Macromolecular Nuclear Magnetic Resonance (CNRMN-UFRJ), 1997-current; Scientific Director of Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro (FAPERJ), 2003–2018; Director of the Brazilian Academy of Sciences, 2007–2013; President of the Brazilian Biophysical Society, 2008–2012; Member and Chair of The World Academy of Sciences (TWAS) Membership Advisory Committee (MAC) in Structural, Cell & Molecular Biology, 2010–2018; President of the Brazilian Society for Biochemistry and Molecular Biology (SBBq), 2014–2016; Program Chair / President of the 23rd Congress of the International Union of Biochemistry and Molecular Biology (IUBMB) and the 44th Annual Meeting of the Brazilian Society for Biochemistry and Molecular Biology (SBBq); President of the State Funding Agency "Fundação Carlos Chagas Filho de Amparo à Pesquisa do Estado do Rio de Janeiro" (FAPERJ), 2019–current; Director of the National Institute of Science and Technology for Structural Biology and Bioirmaging (INBEB), 2008–present.

Awards, Honors, and Activities: John Simon Guggenheim Foundation Fellow, 1991; Brazilian Sendas Award for Scientific Work on Infectious Diseases of Children (shared), 1995; International Scholar, Howard Hughes Medical Institute Fellow, 1997-2002; National Unibanco Award in Medicine for Medical Research (shared), 1998; Brazilian Order of Scientific Merit, Presidency of the Republic of Brazil, Command in 2002, Great-Cross in 2009; TWAS Prize in Biology 2005, the Academy of Sciences for the Developing World (TWAS), 2005; FCW Prize in General Science from Fundação Conrado Wessel, 2010; "Faz Diferença" Prize in Science and Health(O GLOBO), 2012; Gregorio Weber Award (Biophysical Society), 2018; Vital Brazil Medal, 2021; Full Member of the Brazilian Academy of Sciences since 1998; Fellow of TWAS since 2006; Fellow of the National Academy of Medicine (Brazil), 2011; Editorial Board Member of the Journal of Biological Chemistry, 2007-2012, and 2021-present; Editorial Advisory Board of FEBS JOURNAL, 2012-present, Associate Editor of FRONTIERS IN NEUROSCIENCE, 2021-pressent; Editor of PEERJ journal, 2012-present.

**Biophysical Society Activities:** Society Member, 1989-present; Member, Biological Fluorescence Subgroup, 2008-present; Co-chair and Speaker of the Workshop "Putting the Pressure on Proteins" in the 45th Biophysical Society Annual Meeting, Boston, February, 2001; Co-Chair and Speaker of the Biophysical Society Thematic Meeting "Polymers and Self Assembly: From Biology to Nanomaterials", Rio de Janeiro, October 25–30, 2015. Recipient of the Gregorio Weber Award from the Biological Fluorescence Subgroup, Biophysical Society, 2018.

Candidate Statement: I first attended the Biophysical Society meeting in 1987 when I was a postdoctoral research associate at the University of Illinois at Urbana-Champaign. Since then, my students and I have attended the BPS Annual Meeting. I am very honored with my nomination to run for Society Council. In case I am fortunate to be elected a Council Member, I will work to strengthen the scientific multidisciplinarity that is one of the great hallmarks of the Society. The biomedical sciences, including cell biology, physiology, structural biology, and medicinal chemistry have increasingly needed a combination of biophysical tools to advance knowledge in these areas. In 2018, I was honored to be awarded the Gregorio Weber Award for Excellence in Fluorescence Theory and Application by the Biological Fluorescence Subgroup of the Biophysical Society. This award increased my responsibility to work at the edge of biophysical methods to uncover the molecular mechanisms behind prevalent diseases such as cancer and neurodegenerative diseases. I also think that it is crucial to bring younger students into the Biophysical Society, at the beginning of their graduate programs or even when they are still in undergraduate courses. Covid-19 showed the importance of studies involving multinational teams and strengthening the internationalization of the Society should be another priority. As a member of the Council, I will spare no effort to maintain and further expand our Society's international actions, as well as promote more diversity, including greater participation by women, minorities and early-career researchers.



COUNCIL NOMINEES VOTE FOR FOUR



Ildiko Szabo Professor Department of Biology University of Padova, Italy



Jing Xu Professor Department of Physics University of California, Merced, USA

**Research Interests:** molecular identification and biophysical characterization of ion channels in organelles; bioenergetics; pharmacological targeting of ion channels in cancer.

**Education:** MSc, Biology and Chemistry, Eotvos Lorand University, Budapest, Hungary 1988; PhD in Molecular and Cellular Biology and Pathology, University of Padova, Italy, 1994.

**Summary of Professional Experience:** EMBO postdoctoral fellow at Eberhard Karls University, Tuebingen, Germany, 1995-1997; Assistant Professor of Biochemistry, University of Padova, Italy 1998-2004; Associate Professor of Biochemistry, University of Padova, 2005-2016; Professor of Biochemistry, University of Padova, 2017 – present.

Awards, Honors, and Activities: Young Investigator Award of the National Research Council, 2000; Young Investigator Award of the European Molecular Biology Organization (EMBO YIP) 2002; Habilitation for Full Professorship in Biochemistry and in Plant Physiology, 2014; Vice-director of the Ph.D. School in Biosciences and Biotechnologies, University of Padova, 2009-2011; Director of the Ph.D. School in Biosciences, University of Padova, 2017present; Associate Member of the National Research Council, Institute of Neurosciences, Italy, 2014-2020; Coordinator of a Human Frontiers Science Program Grant, 2015-2019; Proponent and Vice-Chair of the 1st Gordon Research Conference (GRC) on "Organellar Channels and Transporters", Bentley, USA, 2015; Co-Chair of the International Biophysics School, Venice, Italy, 2016; Chair of GRC on "Organellar Channels and Transporters", Mount Snow, USA, 2017; Mitochondria, Apoptosis and Cancer (MAC) Conference, Scientific Committee member, Singapore (online) 2021; Evaluator of ERA-Chairs and European Research Council (ERC) Grants, 2017-present; Scientific Committee Member of the Italian Association for Cancer Research, 2017-present; Keynote lecture at FEBS Workshop on Plant organellar signalling, Primosten, Croatia, 2015; Editor: Cancers 2020-present; Frontiers in Physiology, 2017-present.

**Biophysical Society Activities:** Society Member, 1992-present; Member of Bioenergetics, Mitochondria, and Metabolism Subgroup, 1995-present; Co-Chair of Bioenergetics, Mitochondria, and Metabolism Subgroup, 2022-2024.

Candidate Statement: I am truly honoured to be nominated for the Biophysical Society Council. The Society has been very important to me personally, as it played a determining role in my professional development. The BPS Annual Meetings gave me an excellent opportunity to establish inspiring interactions with biophysicists from all over the world, to follow leading-edge research and to discuss my work with the vibrant biophysical community. The contribution of biophysicists to a quantitative understanding of the basic mechanisms driving life as well as disease progression is of the utmost importance for cross-disciplinary efforts to save our environment and promote our health. In this exciting era, the Biophysical Society gives the world's biophysicists great opportunities to communicate their discoveries to scientists working in other fields as well as to future generations and provides a continuous source of inspiration for ground-breaking research. I am deeply involved in academic research, teaching and organization of educational programs offered to early-career scientists. As a Council member, I would strive to make a contribution at the international level. I feel it is important to encourage biophysical studies and career development especially in fields currently perceived by the public and by authorities as very "hot", such as, e.g., aging, virology, bacteriology, adaptation to climate changes. Disseminating knowledge in biophysics, fostering international cooperation in research, sponsoring educational initiatives at the high-school and college levels, promoting the integration of young researchers into the biophysical community, and making the public ever more aware of the importance of quantitative approaches will continue to be top mandates for our Society.

**Research Interests:** motility and cytoskeleton, single-molecule biophysics, active matter, optical trapping

**Education:** BS with honors, Physics, California Institute of Technology, 1998; PhD, Physics, University of California, Santa Barbara, 2006

**Summary of Professional Experience:** Research Assistant with Andrew E. Lange, Physics, California Institute of Technology, 1998–2000; Research Assistant with Douglas G. Michael, Physics, California Institute of Technology, 2000–2001; Postdoctoral Fellow with Steven P. Gross, Developmental and Cell Biology, University of California, Irvine, 2006–2011; Assistant Professor of Physics, University of California, Merced, 2011–2018; Associate Professor of Physics, University of California, Merced, 2018–present

Awards, Honors, and Activities: NIH Academic Research Enhancement Award, 2016-2022; BPS Professional Opportunities for Women Travel Award, 2010, 2018; American Heart Association Postdoctoral Fellowship, 2008-2010; American Society for Cell Biology Postdoctoral Travel Award, 2010; UC Irvine Dean's Award for Postdoctoral Research Excellence, 2009; Barbara K. Burgess Memorial Postdoctoral Award, 2008; NASA Graduate Student Research Fellowship, 2005; UCSB Graduate Opportunity Fellowship, 2005; NSF Graduate Student Teaching Fellowship in K-12 Classrooms, 2004 Mitsubishi Chemical Distinguished Graduate Fellowship, 2004; Broida-Hirschfelder Graduate Fellowship, 2004; UCSB Science and Engineering Research Grant, 2004; UCSB Doctoral Student Travel Grant, 2004; Caltech Summer Undergraduate Research Fellowship, 1995; UC Berkeley Space Science Laboratory High School Student Summer Internship, 1994; Co-organizer of Focus Session, American Physical Society Annual March Meeting, 2013, 2018-2021; Co-chair of Platform Session, Biophysical Society Annual Meeting, 2016, 2018, 2020

**Biophysical Society Activities:** Society member since 2006; Motility and Cytoskeleton Subgroup member since 2014; member of the FaB (Find a Biophysicist) Network since 2019; regular attendee of the Annual Meeting

Candidate Statement: I'm honored to be nominated for the Biophysical Society Council. The Biophysical Society is a tremendous organization. The Society has been my professional home for over 16 years and has provided me with great opportunities and resources for my scientific growth and career development. I would love the opportunity to serve the Society and to ensure that the Society remains a supportive and inclusive home for biophysicists around the world. I believe that the key roles of the Society remain the same as the Society continues to grow and prosper: to promote science across broad research areas and support the professional development of researchers from diverse backgrounds and across career stages. If I am fortunate enough to be elected a Council member, I will work diligently with the members of the Biophysical Society Council to serve the Society members by continuing to promote scientific excellence, diversity, and inclusivity.