BPS Bulletin

THE NEWSLETTER OF THE BIOPHYSICAL SOCIETY

Biophysical Society

Total Biophysics Week Reach 67,549

Affiliate Events 42

5 Continents
18 Countries

Celebrating 10 Years of Biophysics Week!

Since its launch in 2016, Biophysics Week has grown into a truly global initiative, bringing together researchers, students, and organizations to celebrate and raise awareness of biophysics. Now in its 10th year, Biophysics Week 2025 (March 24–28) marked a decade of fostering connections, promoting interdisciplinary collaboration, and highlighting the vital role of biophysics in advancing scientific discovery.

This milestone event was made possible through the dedication of BPS members, Subgroups, Student Chapters, and Affiliate Event Organizers, who hosted 42 events and activities in 18 countries across 5 continents. From interactive lab tours and scientific seminars to creative art-science projects, hands-on experiments, and casual networking events, Biophysics Week 2025 offered opportunities for communities worldwide to engage with biophysics in new and meaningful ways.

We are grateful to everyone who participated, organized events, and contributed to making this week a success. Your enthusiasm and commitment continue to strengthen the global biophysics community. While the week may be over, many of the resources, including webinars, career insights, lay summaries, lesson plans, and more, will still be available at www.biophysics.org/biophysics-week.

Thank you for celebrating 10 years of Biophysics Week with us. We look forward to another exciting year of discovery and collaboration in 2026!

Thank You Biophysics Week Partners!

We would like to acknowledge our partners for their support in promoting Biophysics Week outreach. We are grateful for their contributions in ensuring the success of this event by spreading awareness and participation globally. By working together, we strengthen the significance of biophysics in scientific research.

Inside

Stay Connected with BPS


Lynmarie K. Thompson

Speaking Up for Science

What role can BPS members play in addressing the current crisis in US support for science? Although this is only one of many current challenges, it is one that we are especially positioned to address. I suggest that we use this moment to embrace the idea that all scientists should be communicating the value and importance of science at every opportunity. Advocating for science to our elected representatives is one important part of this. However, it is likely even more important to inject the value of science into our everyday conversations with our families, neighbors, friends, communities, and chance acquaintances, in an effort to move ourselves into (or back to) an era in which the public is less intimidated by science and more excited about science as a source of advances that can improve the human condition.

Results from a recent international study give some insight into current attitudes (Cologna, V., et al. 2025. Trust in scientists and their role in society across 68 countries. *Nat. Hum. Behav.* https://doi.org/10.1038/s41562-024-02090-5). Although the study reports a relatively positive view of science ("75% agree that scientific research methods are the best way to find out whether something is true or false"), they also report only a marginally positive view of scientists: only 57% think that most scientists are honest, only 56% think that most scientists are concerned about the well-being of others, and only 43% think that scientists listen to other viewpoints. Since 83% of respondents would like scientists to communicate more about science with the public, such communication presents a clear opportunity to improve public perception of scientists.

It is especially critical to inject the voices of scientists, and to have those voices be trusted, in a world in which the public is barraged with misinformation and disinformation that often come with life-threatening consequences. An important way to improve public perception of science and scientists is to intentionally seek more opportunities in our daily lives to talk with family, friends, and our communities about what we do. The stories we tell in these conversations can humanize scientists, illustrate how we conduct research, and convey the many ways in which basic science has and will continue to benefit humanity.

A key step in having positive conversations about science is to think about how we tell our stories. One challenge is that scientists are trained to avoid anecdotes and to instead talk about evidence, data, and statistics. As a scientist, I find it difficult to accept that facts and evidence are actually a poor means of persuasion when talking to a nonscientist. Instead, stories can be more engaging, memorable, and easier to comprehend. According to a review that advocates for using storytelling for communicating science to nonscientists, narratives may be "the default mode of human thought" (Dahlstrom, M. F. 2014. Using narratives and storytelling to communicate science with nonexpert audiences. *Proc. Natl. Acad. Sci. USA* 111:13614–13620). To be clear, we do tell stories, in every one of our scientific papers and talks. But we have much less practice at sharing stories with a nonscientific audience.

A second challenge is engaging with individuals who are firmly convinced of false information they have heard or read. Proceeding with empathy and curiosity are two approaches to help us keep our frustration at bay. We can engage with people to learn how they came to their conclusions, and we can consider the high emotional impact of the anecdotes they have heard or experienced. For instance, I can imagine that some parents of an autistic child might find it very difficult to proceed with recommended vaccinations of their second child, in spite of their doctor assuring them that there is no evidence of any link between vaccines and autism. To counterbalance the profound effects of such experiences and anecdotes, we can work on collecting powerful anecdotes that help to make the points that are supported by scientific evidence. Finally, since these conversations are likely to have mixed results, I wanted to share the perspective of a participant in the Biophysics Week storytelling workshop. She suggested that we think of each conversation as an experiment, an opportunity to learn what does and doesn't work, and then use those insights to make the next conversation more effective.

Overall, it would be great if we turned the pain of this political moment into the energy to push for a cultural change within science. Let's teach ourselves and our students the skills for good communication with nonscientists. We must prioritize these communications to be a a part of our job. Since taxpayers invest heavily in scientific research, let's make the time to clearly articulate to the public the return on their investment. There are many recent positive moves in this direction. I have enjoyed attending sessions of a "Science Café"—short evening talks about science held at a local brewery, attracting a broad audience. It also has been wonderful to see our graduate students participating in (and winning!) three-minute thesis competitions. We should incorporate such opportunities into our curricula and reward such efforts in our evaluation processes. Changes in our individual attitudes and our

requirement/reward structures will ultimately change the culture.

What is the role of BPS in speaking up for science? Our Public Affairs Committee (PAC) works to advocate for science funding and sound science policy. In addition, PAC disseminates information on its website and through emails to empower BPS members to reach out to elected officials individually when we are inspired to do so. In contrast, engaging with the general public is best done by individual members, through both formal efforts like talks for nonscientists, and through informal everyday conversations with our families and in our communities. Thank you to all of our members for the outreach that you already do. For support and inspiration of outreach, 1)BPS will continue to update this listing of resources for communication with nonscientists, and 2) BPS is planning to highlight outreach efforts of our members. Please send a link to your outreach work to advocacy@biophysics.org so we can post some examples.

My hope is that we will all be inspired by the current moment to each do a bit more. I welcome your suggestions in this important endeavor at thompson@chem.umass.edu.

—*Lynmarie K. Thompson*, President

Call for BPS Ambassador Applications

Are you an advocate for biophysics education and knowledge sharing? Have you considered applying for the BPS Ambassador Program to put those skills into action? The BPS Ambassador Program was developed to help make biophysics a more dynamic, inclusive, and interdisciplinary community to better serve the needs of our international membership. Currently, BPS works with 12 Ambassadors—4-member cohorts serving 3-year terms.

For the next class of Ambassadors (2026–2028), we are accepting applications from all international members residing in countries outside of Australia, Cameroon, Japan, Lithuania, Mexico, Spain, United Arab Emirates, and Uruguay, where we already have Ambassadors. An ideal country Ambassador is actively engaged in biophysics research, is committed to remaining in the field for the duration of the Ambassadorship, is an active paid member of the Society in good standing, is able to attend the Annual Meeting at the start of their term, has working proficiency in English, and has a demonstrated ability to contribute to organizations or scientific societies outside of their normal job duties.

To learn more about the program, Ambassador eligibility, and benefits, please visit www.biophysics.org/outreach/ambassador-program.

By the Numbers

The Primarily Undergraduate Institution (PUI) Network currently has 780 members.

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Nelli Mnatsakanyan

Nelli Mnatsakanyan

Areas of Research
Structural and functional studies of the ATP synthase leak channel, and the role of ATP synthase in disease

Institution
Pennsylvania State University College of Medicine

At-a-Glance

Nelli Mnatsakanyan is a biophysicist focused on understanding the role of ATP synthase in diseases like Alzheimer's and diabetes. Her journey from Armenia to leading research at Penn State College of Medicine reflects her dedication to scientific discovery and mentoring the next generation of scientists

Nelli Mnatsakanyan was born and raised in Yerevan, Armenia, a small country in Eastern Europe. Raised by her father, a chemical engineer, and her mother, a high school teacher, Mnatsakanyan developed an early interest in science, particularly physics. Her fascination grew through conversations with her astrophysicist uncle, who held a doctorate in cosmic rays and often took her to his lab at the Astrophysical Observatory. "I recall him giving me an annual subscription to *Science and Life*, a science magazine that was the main source of scientific information in that internet-free era," she shares, emphasizing how these early experiences sparked her curiosity in the field.

Her interest in the biomedical sciences was further piqued after she faced a life-threatening condition as a child and spent months in the hospital. During that time, Mnatsakanyan began dreaming of becoming a doctor and saving lives. In Armenia, the educational system allows students to apply simultaneously to various schools, including medical school, immediately after graduating from high school. Although her medical school application was unsuccessful, Mnatsakanyan was admitted to the biophysics program at Yerevan State University. She initially attended with the hope of reapplying to medical school the following year. However, after just one month of studying biophysics and conducting experiments in the lab, she realized that she wanted to pursue a career as a research scientist in biophysics.

During her undergraduate years, Mnatsakanyan's research focused on bacterial ATP synthase studies in *Armen Trchounian*'s laboratory. "It was a very exciting time in ATP synthase research. *Hiroyuki Noji* and colleagues from the Tokyo Institute of Technology directly observed in 1997, for the first time, the rotation of ATP synthase at the single-molecule level, followed by the Nobel Prize being awarded to *John Walker* and *Paul Boyer* for their work on ATP synthase," she recalls. The significance of these advancements in the field was exciting, and her ATP synthase studies deeply fascinated her. She decided to pursue her PhD research on ATP synthase.

Following her PhD, she completed postdoctoral training at Texas Tech University. Feeling apprehensive about starting work, especially since she had never spoken English before, Mnatsakanyan arrived in the United States in 2005 with her husband and their two-year-old daughter. "I was a bit frightened to go to work the next day," she admits. Fortunately, *Joachim Weber*, her postdoctoral mentor, provided crucial support, helping her navigate both cultural and academic challenges. Under Weber's mentorship, Mnatsakanyan studied the structure-function relationship and the coupling and rotation mechanism of ATP synthase by using the bacterial enzyme.

Mnatsakanyan's journey continued with her attendance at the 2014 Biophysical Society Annual Meeting, where she learned about the role of mitochondrial ATP synthase in mitochondrial permeability transition and cell death, as presented by *Paolo Bernardi* and *Elizabeth Jonas*. Inspired by the new insights, she joined Jonas's laboratory at Yale School of Medicine to investigate the leak channel formed by ATP synthase under pathological conditions. "I had numerous questions, suggestions, and ideas to test in mitochondrial ATP synthase, and I was truly excited to join Dr. Jonas's laboratory," she says.

In her research, Mnatsakanyan sought to understand how ATP synthase, the primary ATP-producing enzyme in cells, could form a leak channel in certain pathological conditions, ultimately leading to cell death. To investigate this, she purified mitochondrial ATP synthase and conducted single-particle cryo-EM studies to identify the conformational changes that led to leak channel activation. Cryo-EM was an emerging field at the time, and Mnatsakanyan was fortunate to receive significant support from *Fred Sigworth* in these studies. "The field of mitochondrial permeability transition (mPT) was one of the most contentious areas of biophysics research at that time, and remains so today," she explains. "Different mitochondrial proteins have been suggested as pore-forming candidates since the first discovery of the mPT in the 1970s.

Lately, the ATP synthase has been debated as a component of the mPT pore. I recall that a well-esteemed colleague even advised me to leave the field back in 2017, because it could have harmed my career. My research was one of the main meanings of my life, and I had fallen in love with this field. Because I believed so strongly in my project, I worked even harder."

Currently, in her independent laboratory at the Penn State College of Medicine in Hershey, Pennsylvania, Mnatsakanyan and her team focus on structural and functional studies of the ATP synthase leak channel. Their research explores the role of ATP synthase in various diseases, including Alzheimer's disease, ischemia-reperfusion injury, and diabetes. For Mnatsakanyan, one of the most rewarding aspects of her work is mentoring her trainees and watching them grow into independent scientists.

In addition to her research, Mnatsakanyan is heavily involved in the Biophysical Society, particularly the Bioenergetics, Mitochondria, and Metabolism Subgroup, through which she has connected with many collaborators. She also serves on BPS's Committee for Professional Opportunities for Women (CPOW), where she has found valuable career development opportunities and made lifelong friendships.

When offering advice to young biophysicists, Mnatsakanyan says, "Believe in yourself, be persistent, and focus solely on science. Everything else, including a better position, recognition, and success, will follow. It is your next breakthrough discovery that will determine your future as a scientist."

International Researchers Considering Risks of Traveling to US Conferences

The ongoing executive and policy actions of the Trump Administration have created a scenario set to wreak havoc on US scientific conferences. Each year, thousands of researchers travel to attend scientific conferences to present work, network, and build collaborations. However, recent headlines regarding border crossings, interrogations, detentions, and deportations by customs officials have the international community concerned. Spurred by the detention and deportation of a space researcher from CNRS, France's national research agency, while en route to attend a conference in Texas, scientific organizations are working to provide some degree of assurance to researchers regarding travel to the United States. The accounts of the US and French governments on the reason for detaining and denying entry to the CNRS researcher vary, but the incident has been felt throughout the global scientific community.

French researchers at multiple institutions have since received emails from their employers advising them to consider traveling with a laptop empty of emails and sensitive documents, while others have decided to withdraw participation in upcoming events. Scientists who have ongoing collaborations with US-based researchers are considering scientific conference travel to be a necessary sacrifice in order to protect their ability to travel to the United States in the future for research collaborations. International students and scholars based in the United States face a different risk: if they travel to attend meetings in other countries, they could have problems returning. The full extent of the impact on international researchers, foreign students studying in the United States, and scientific conferences remains to be seen.

Senate Confirms Kratsios as Head of OSTP

On March 27, the US Senate confirmed *Michael Kratsios* to lead the White House Office of Science and Technology Policy (OSTP), with 21 Democrats joining 53 Republicans to affirm the nomination. The Democratic votes in favor of confirmation demonstrate a significant increase in bipartisan confidence when compared with other federal health agency nominees. The support is seen as hopeful to the US research community that he will make the case for the importance of academic research in fostering innovation. Kratsios is the first OSTP director without a science PhD or extensive research experience. He will also serve as the president's science adviser and as co-chair of the President's Council of Advisors on Science and Technology, along with *David Sacks*, special adviser for AI and crypto.

NSF Grants Lag by Nearly 50% Compared with 2024

The number of new grants handed out by the National Science Foundation (NSF) since President *Donald Trump* took office has fallen by nearly 50% compared with the same two-month period one year ago. The drop-off—which has reduced the funds awarded to researchers by more than $400 million—is even steeper for engineering, education, and computing sciences, as well as for NSF's new technology directorate. The finding conflicts with public statements by NSF Director *Sethuraman Panchanathan* stating that the agency has issued 95% of its funding compared with the same time last year. That figure, however, refers to the money handed out since the start of this fiscal year on October 1, 2024. Additionally, it has been suggested that grant award distribution at the beginning of a new administration typically carries a lag period as staff changeovers and new leadership are put in place.

At the close of February, Democrats on the House Committee on Science, Space, and Technology wrote to NSF's oversight body, the National Science Board (NSB), asking it to investigate rumors that NSF's grantmaking process had been disrupted under the new administration. The NSB responded that it had reviewed the capacity of the NSF and that the agency will do everything it can to advance its mission.

Health and Human Services to Make Additional Reductions in Force

The Trump Administration ended the first quarter of 2025 with the announcement by Department of Health and Human Services (HHS) Secretary *Robert F. Kennedy, Jr.* of a plan to downsize by 10,000 employees across HHS agencies, in addition to the 10,000 who already left since President *Donald Trump* took office—a total loss of about one-quarter of the HHS workforce. It will also consolidate many administrative offices and break off some functions, which will be merged into a new HHS agency.

The National Institutes of Health (NIH), which must lose 1,200 positions, took a lighter hit than some expected. The cuts, which amount to 6% of the 20,000 employees NIH had at the start of the year, come on top of an unknown number of departures by people who took the "Fork in the Road" offer, early retirement, or other incentives. In February, NIH laid off nearly 1,200 staffers as part of government-wide firings of "probationary" employees; subsequently, 250 of those employees were rehired in response to a court order after legal action by NIH and many others. It is anticipated that these staff will be included in the reduction in force. HHS says NIH will achieve the cuts by centralizing functions such as human resources, acquisitions, and communications that NIH's 27 institutes and centers now run independently.

Spatial Organization of Biological Functions

Bangalore, India | October 20–25, 2025

Biophysical Society

ICTS International Centre for Theoretical Sciences
TATA INSTITUTE OF FUNDAMENTAL RESEARCH

A living organism relies on the interactions of molecular constituents within itself and with its surroundings to function properly. However, it is clear that the full functionality of a living organism cannot be determined solely by its molecular makeup and interactions. Recent studies have shown that the dynamic spatial organization of different molecular components within a cell, different cells within a tissue, and different organisms within a community, play critical roles in enabling the full functionality of the organism. Furthermore, differential spatial organizations may imply a new level of functional regulation that complements the classic mechanism by molecular interactions.

Understanding why and how biological functions are spatially organized requires a concerted effort from scientists of diverse backgrounds, as the spatial organization operates from the nanometer-scale of small liquid droplets condensates inside cells to centimeter-scale skin color pattern formation in animals. As the significance of this field has been increasingly appreciated, it is now time to bring together leading scientists at the meeting to discuss current advances, share expertise, and, most importantly, define the underlying biophysical principles.

This Thematic Meeting seeks to bring scientist from multiple disciplines, including biology, chemistry, physics, and engineering, to discuss current advances in the studies of the spatial organization of biological functions at different length and time scales, including chromosome folding, transcription, membrane transport, intracellular and intercellular communications, tissue patterning, and more.

ORGANIZING COMMITTEE

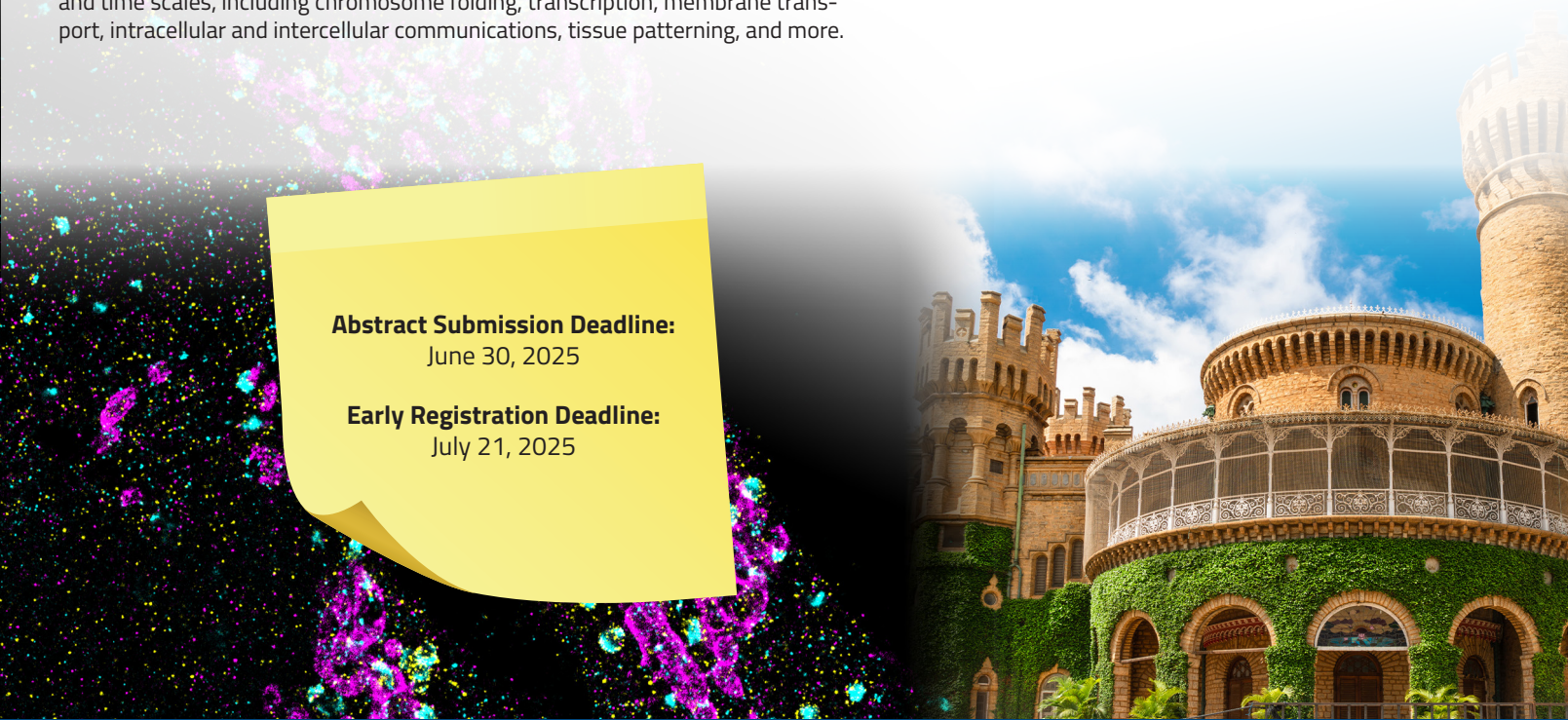
Sankar Adhya, National Cancer Institute, USA
Anjana Badrinarayanan, National Centre for Biological Sciences, India
Vijay Kumar Krishnamurthy, International Centre for Theoretical Sciences, India
Melike Lakadamyali, University of Pennsylvania, USA
Satyajit Mayor, National Centre for Biological Sciences, India
Jie Xiao, Johns Hopkins School of Medicine, USA

SPEAKERS

Vaishnavi Ananthanarayanan, UNSW Sydney, Australia
Aseem Ansari, St. Jude Children's Research Hospital, USA
Danfeng (Dani) Cai, Johns Hopkins Bloomberg School of Public Health, USA
Apratim Chatterji, IISER Pune, India
Peter Fraser, Florida State University, USA
María García-Parajo, ICFO, Spain
Zemer Gitai, Princeton University, USA
Amy Gladfelter, Duke University School of Medicine, USA
Monica Guo, University of Washington, USA
Michal Hammel, Lawrence Berkeley National Lab, USA
Linda Kenney, University of Texas Medical Branch at Galveston, USA
Kinneret Keren, Technion International, Israel
Rong Li, National University of Singapore, Singapore
Vicky Lioy, Institute for Integrative Biology of the Cell, France
Tam Mignot, CNRS-Aix Marseille University, France
Mustafa Mir, University of Pennsylvania, USA
Nitin Mohan, Indian Institute of Technology Kanpur, India
Maithreyi Narasimha, Tata Institute of Fundamental Research, India
Masatoshi Nishikawa, Hosei University, Japan
Dimple Notani, National Centre for Biological Sciences, India
Ranjith Padinhateeri, Indian Institute of Technology Bombay, India
Marko Popovic, Max Planck Institute for the Physics of Complex Systems, Germany
Pramod Pullarkat, Raman Research Institute, India
Madan Rao, National Centre for Biological Sciences, India
Timothy Saunders, University of Warwick, United Kingdom
Jin Zhang, University of California, San Diego, USA

Abstract Submission Deadline:
June 30, 2025

Early Registration Deadline:
July 21, 2025



For more information, visit www.biophysics.org

Know the Editor

Christoph Schmidt

Christoph Schmidt
Duke University

Editor, Cell Biophysics
Biophysical Journal

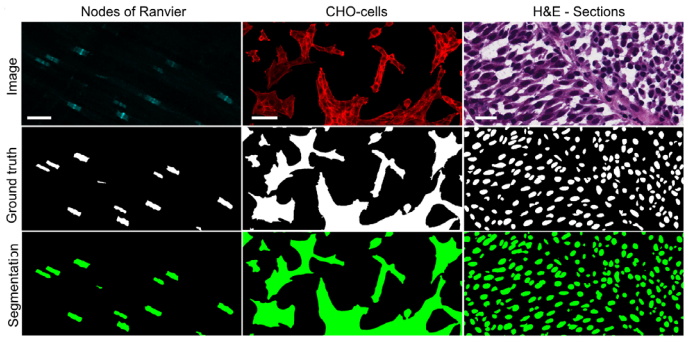
What are you currently working on that excites you?

We are currently trying to understand how mechanosensitive channels in bacteria work. These channels are the emergency pressure-release valves that bacteria need to survive sudden shocks in their environmental conditions, for example, when they transit from the guts of an animal into the water of a lake. These channels are far less well understood than I first thought. They are believed to be opened when the mechanical tension in the inner cell membrane reaches a certain threshold. But how is this tension divided between the lipid cell membrane and the tough protective polymer network surrounding the lipid membrane? Why do bacteria need thousands of copies of channels while two or three would be enough to release pressure? We use atomic force microscopy to mechanically manipulate bacteria and can observe how the channels open and release a little bit of the cell's contents every time they open. This research also has implications for the development of new antibiotics, because many antibiotics attack the bacterial cell wall, and we need to know how defects in the wall develop and what the bacteria are doing to fix them.

What has been your most exciting discovery as a biophysicist?

Back when I was a postdoc, working with *Steve Block* at the Rowland Institute in Cambridge, Massachusetts, we set out to observe single motor protein molecules at work by using a laser beam forming so-called "optical tweezers." We worked hard on both the protein preparation and the custom-built instrument. After many months of labor, solving a million problems, we finally had little glass beads with just one or two kinesin motor proteins attached to them in such a way that they could actually do their job and move along microtubules, protein polymers that are part of the cell cytoskeleton. We recorded the trajectories of the beads with nanometer resolution. Nobody could talk in the room during the experiment because it would spoil the signal. Then we saw, for the first time, how a single motor moved its bead in tiny little steps of 8-nm size, creating a staircase trajectory. Seeing this appearing on the computer screen was incredibly exciting.

Editor's Pick



Biophysical Reports
Deep learning-driven automated high-content dSTORM imaging with a scalable open-source toolkit
Janis T. Linke, Luise Appeltshauser, Kathrin Doppler, and Katrin G. Heinze

"Super-resolution microscopy is a powerful technology that allows scientists to see the tiny structures within biological samples in incredible detail. Despite its potential, acquiring state-of-the-art super-resolved images remains challenging due to the technical expertise, time-intensive procedures, and complex analysis required. In this study, the authors present a scalable, open-source software toolkit that automates image acquisition by dSTORM. Leveraging deep learning for segmentation, the toolkit can accurately identify and target objects within diverse biomedical samples, even those exhibiting only low contrast. This automation significantly accelerates high-content super-resolution imaging workflows. By providing an accessible, user-friendly solution, researchers from various disciplines can harness the power of super-resolution microscopy without extensive specialized training."

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Upcoming BPS Webinar

Grant Writing Webinar - A Novel Approach to Writing NIH-Style Research and Training Applications: Rhetorical Patterns, Storytelling, Verbal Feedback

Friday, May 16, 12:00 PM–1:30 PM USA Eastern

To register, visit www.biophysics.org/webinars.

How to Effectively Communicate Your Research to the World

For Biophysics Week, the Publications Committee organized an interactive webinar entitled "How to Effectively Communicate Your Research to the World." In the spirit of the Biophysical Society, the webinar attracted researchers from around the world. Moderator *Bill Wimley* (Tulane University, USA) and panelists *Kalina Hristova* (Johns Hopkins University, USA), BPS Ambassador *Ana-Nicoleta Bondar* (University of Bucharest, Romania), and BPS Ambassador *Eduardo Jardón-Valadez* (Metropolitan Autonomous University, Mexico) emphasized the importance of optimizing research communication for different scenarios. Panelists led interactive discussions, answering four key questions that shape effective communication.

For "What are the purposes of communication?" answers included advancement of scientific knowledge, of course, but also public appreciation of science, increase of funding opportunities, and even self-promotion. One participant answered, "To impress my girlfriend's parents!"

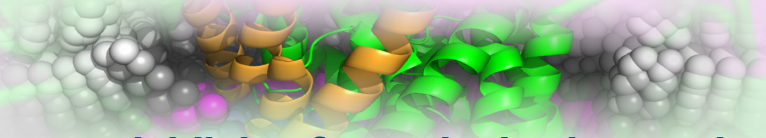
In answer to "Who are the potential audiences?" participants thought beyond scientific peers, also considering journalists, policy makers, funders, and the general public. The panel emphasized optimization of communication for each audience and discussed the challenge of recognizing and avoiding technical jargon when speaking to non-specialists.

For "What questions must be answered when communicating?" participants moved beyond the usual focus on experiments and results to consider more fundamental inquiries such as "What are the big questions that my research addresses?" and "To whom does my research matter?" as well as "How will my research benefit humanity?" and "Why is my research worth funding?" The panelists highlighted that many audiences will expect to hear the bottom line first, contrasting with how researchers typically communicate with each other.

For "What are the types of research communications?" participants discussed formats beyond papers and posters, including a brief "elevator talk" to a non-expert, a poster summary, an interview with the press, a pitch to a funder or investor, and a podcast. Panelists emphasized that students should practice discussing their own research in each of these scenarios, addressing the specific questions that are important to each audience.

Finally, participants were asked to put the interactive discussion into practice by writing a one- or two-sentence description of their own research, targeted to a hypothetical politician who makes decisions about funding. Several participants skillfully described their own exciting research projects. This webinar provided valuable insights and practical techniques to effectively communicate research and maximize its impact across different audiences.

BiophysicsWeek
March 24–28, 2025



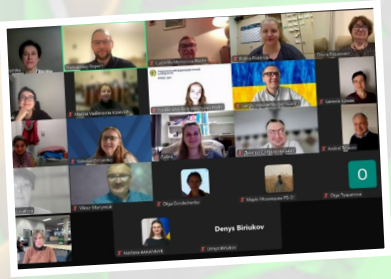
Highlights from Biophysics Week Events around the World

Workshop in the MIDST: Evaluating Drug Binding in Protein Variants using Free Energy Perturbation
Sabancı University, Istanbul, Türkiye

Since 2018, as part of Biophysics Week, the MIDST group at Sabancı University in Türkiye has hosted the "Dialogues in the MIDST" workshop in Istanbul. Over the course of a single day, theoretical concepts and practical applications on a selected topic in computational materials science or biology are explored. With 30 postgraduate attendees, the most recent workshop covered antibiotic resistance, focusing on dihydrofolate reductase and employing free energy perturbation to assess drug binding from a purely structural perspective. Attendees learned the underlying theory and applied it extensively by connecting Türkiye's high-performance computing platform (TRUBA) to run simulations. The goal of the workshop was to equip participants with practical research skills, with the provided simulation and analysis schemes, along with accompanying code, paving the way for the effective use of these resources in their work. The workshop was led by *Tandac Furkan Guclu* and moderated by *Canan Atilgan*. The event was supported by the EuroCC4SEE project, a European initiative aimed at disseminating the use of high-performance computing.

Biophysics in Ukraine: A Karazin University Initiative
V. N. Karazin Kharkiv National University, Kharkiv, Ukraine

As part of Biophysics Week 2025 and in celebration of 60 years of biophysicists' first graduation, V. N. Karazin Kharkiv National University hosted "Biophysics in Ukraine: Experience Across Borders," bringing together researchers, students, and professionals to explore the latest advancements in biophysics. The event facilitated knowledge exchange between Ukrainian biophysicists working at home and abroad, fostering collaborations and discussing biophysics' role in addressing global scientific and educational challenges. The program featured presentations from multiple generations of graduates from Karazin University's Department of Biophysics, covering diverse topics such as protein (mis)folding, nanostructured drug delivery systems, membrane biophysics, and neuroscience. An interactive online session allowed graduates to share professional journeys, research insights, and challenges in the field. Additionally, the Head of the Ukrainian Biophysical Society introduced strategies to revitalize the organization, aiming to enhance visibility and international connections. A panel discussion on the future of biophysics in Ukraine highlighted the importance of interdisciplinary education, global networking, and mobility, particularly for young scientists. The event strengthened the biophysics community and inspired students to engage in this dynamic field. We brought together 65 biophysicists from across Europe and the United States.



Biophyzza Connection at the Faculty of Sciences
University of Granada, Granada, Spain

The University of Granada participated in the Biophysics Week 2025 celebrations, joining the "Biophyzza Connection" initiative organized by the Spanish Biophysical Society (https://sbe.es/biophyzza/), with sponsorship from Domino's Pizza and the Dean of the Faculty of Sciences. On March 25, *Raúl Pérez-Jiménez* (CIC bioGUNE), former undergraduate and doctoral alumnus of our university, delivered a talk entitled "Designing New Biocatalysts for New Applications: Biotechnology and Society." The goal was to provide students from the bachelor's programs in biology, biochemistry, biotechnology, and chemistry with examples of cutting-edge biomedical and biotechnological applications of this field of knowledge. A very lively discussion took place between the audience and Pérez-Jiménez, which was moved to the cafeteria

where students had the opportunity to interact informally with the speaker and the professors from the Department of Physical Chemistry involved in the organization of the event, while enjoying refreshments and pizza. Approximately 80 participants took part in the event.

UCF Biophysics Day
University of Central Florida, Orlando, USA

The 2025 University of Central Florida (UCF) Biophysics Day poster session, hosted by the UCF Biophysics Group, was held at the university's Physical Sciences Building atrium on March 25. There were poster presentations by faculty, graduate students, and undergraduate students showcasing biophysics-related research across the campus. Presentation topics included single-molecule imaging, nanoscale spectroscopy, actin cytoskeleton biomechanics, and amyloid beta structure and dynamics. The Biophysics Day event provided a great networking opportunity that sparked engaging discussions among students and faculty. The organizers are excited to continue working together to promote biophysics research on campus and beyond.

History of the Action Potential and Bioelectricity Starting in 1600
Idaho State University, Pocatello, USA

Idaho State University's Department of Biological Sciences hosted *Bertil Hille* for a seminar titled "History of the Action Potential and Bioelectricity Starting in 1600." Hille, Professor Emeritus and the Wayne E. Crill Endowed Professor in the Department of Physiology and Biophysics at the University of Washington, walked students through the past experiments that helped to build the foundation for our understanding of action potential and bioelectricity, as well as the minds behind those discoveries. After the seminar, Hille answered questions from students about the challenges of introducing new concepts in science, the importance of confidence in the scientific journey, and more.

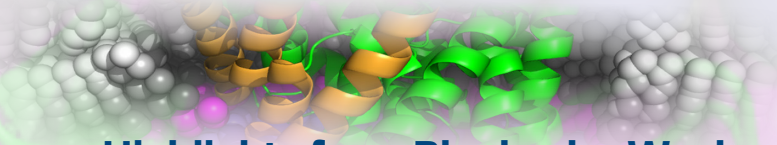
Biophysical Gastronomy: Understanding the Role of Gluten in Baking and Disease
Biophysical Society of Canada

On March 29, biophysicists from across North America and Europe took to their kitchens to bake bread while learning about the structure and function of gluten. The event was organized by the Biophysical Society of Canada Trainee Executive (https://biophysicalsociety.ca/trainee-hub/, @bsctrainees1) and led by *Sara Evans*, a PhD candidate in the Department of Chemistry at Dalhousie University. Gluten is a term for the insoluble proteins in wheat and other grains. Kneading the bread, or "building up the gluten," is a process in which applying shear forces to the bread causes the gluten protein network to form. This gluten network contributes to the bread's shape and texture. Throughout the bread-baking process, Evans talked about how different additives, such as eggs, fats, milk, or seeds, affect the gluten network and the resultant bread structure. She also showed various techniques for kneading and testing the dough to obtain the perfect loaf. At the end of the workshop, the bakers had the knowledge to tackle bread baking on their own.

Seeing Proteins in Action, Activity, Allostery, and Assembly
University of Leeds, Leeds, United Kingdom

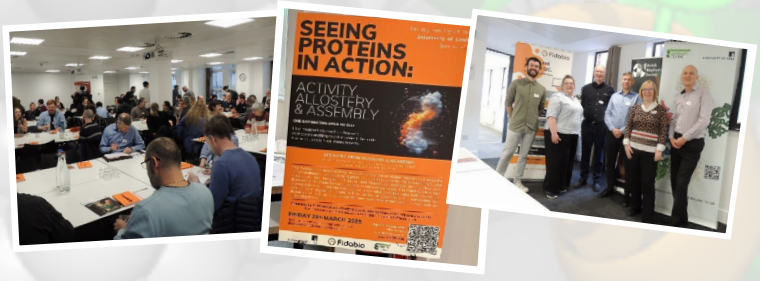
Many of us are studying complex molecular systems, so this one-day workshop was a super day, held during "Biophysics Week," and covered as much of the "Activity, Allostery, and Assembly" themes as we could squeeze in. Keynote talks covered cryo-EM analysis of complexes involved in DNA repair (*Amanda Chaplin*, University of Leicester) and pipelines for making better preps of membrane proteins (*Paul White*, GlaxoSmithKline). Short and flash talks highlighted other recent exciting discoveries, including those of early career researchers. New technologies empower research. Support for the meeting from Fidabio was a great fit, with their flow-induced dispersion analysis (FIDA) technology providing measurements of size, shape, and aggregation that helped many to understand protein behavior. The sell-out crowd of more than 100 people packed the Cloth Hall Court Conference venue at the University of Leeds with delegates from universities and industry spanning the United Kingdom. There was plenty of time to talk with old friends and new, and roundta-

BiophysicsWeek
March 24–28, 2025



Highlights from Biophysics Week Events around the World

ble sessions with Fidabio experts who advised new and experienced users how FIDA can help their research. With a great venue, just a few minutes from the train station, there was no need to rush those discussions! The organizers are grateful to the Biotechnology and Biological Sciences Research Council for funding the Fidabio instrument in the Astbury Centre at Leeds. If you are interested in trying it out, please contact us (*Iain Manfield*, I.manfield@leeds.ac.uk; *Sheena Radford*, S.E.Radford@leeds.ac.uk). We are also grateful to Fidabio and the British Biophysical Society for supporting the meeting. We plan to run further events, so watch for updates.



Groningen Biophysics Day
University of Groningen, Groningen, Netherlands

Groningen Biophysics Day brought together more than 70 participants from the Northern Netherlands Biophysics community, kicking off with a networking event over lunch with pizza, followed by seven short talks highlighting the breadth of the biophysics research that is ongoing in the region. We heard about glassy dynamics of motor proteins, using vibrational spectroscopy to study photosynthetic complexes, electrochemical characterization of synthetic cells, high-speed atomic force microscopy used to characterize antimicrobial molecules, and both experimental and theoretical approaches to studying the nuclear pore complex. Participants were encouraged to make new connections and to think about potential collaborative projects, but most of all it was a real celebration of the great biophysics research centered in Groningen!

The Biophyzza Connection - Biophysics Week in Madrid
Spanish Astrobiology Center, Madrid, Spain

More than 60 students joined in Madrid to celebrate biophysics in the "Biophyzza Party" as part of Biophysics Week. As you might have heard, in Spain we know how to party! Since 2017, this event has been organized in Madrid, with other Spanish cities being added as participants in the "Biophyzza Connection." Each event combines a talk or a roundtable on a topic related to biophysics followed by a party with drinks and pizza to facilitate interactions between guest speakers and attendees. The organizers are grateful to Domino's Pizza as a sustained supporter, providing free pizza. The Spanish Biophysical Society also provides financial support. In the Biophyzza Party celebrated on March 28, the main speaker was *Carlos Briones*, researcher at the Spanish Astrobiology Center (part of the NASA network of astrobiology centers), giving a lecture on "AstroBiophysics." Briones is a remarkable communicator, very active in social networks (@brionesci), and an outstanding scientist investigating prebiotic evolution and exobiology. In our Biophyzza Party, Carlos outlined the importance of biophysics in ongoing approaches to develop life biosensors, investigate the potential chemical components and processes defining the origin of life on Earth, and explore the possibility of the existence of other life in the universe. Are we alone? Is life as we know it a consequence of randomness or of necessity? Will we ever be able to detect extraterrestrial life? These were some of the stimulating questions discussed with the aid of drinks and pizza.

Life Beyond Earth
CNR - Nanoscience Institute, Pisa, Italy

Astrobiology and space agriculture represent two scientific frontiers of extraordinary relevance for the future of humanity. In this event, experts in the field discussed the latest discoveries and challenges related to the persistence and evolution of life in space. They explored the scientific, technological, and ethical implications of this research, offering a glimpse into the potential and prospects they offer for our future as a species.

Strengthening Global Connections in Iberoamerica
Virtual Event

Building Bridges in Computational Biophysics (BBCB) is an annual event co-sponsored with the Sociedad de Biofisicos Latinamericanos (SOBLA) that has aimed to bridge the gap between wet lab and computational researchers since 2022. They hold an annual symposium the second week of October that highlights the power of shared language, culture, and scientific goals across Spain, Portugal, and Latin America. Their recent virtual networking event on March 28 brought together 10 biophysicists from more than 5 countries to celebrate the 10th anniversary of Biophysics Week. BBCB v3.5 created a dynamic space to cultivate meaningful connections and advance science collaboratively. The format of the networking session sparked insightful exchanges among peers, reinforcing the value of cross-disciplinary collaboration and the strength of our global community. The session was structured in breakout rooms to foster informal discussion around three key questions. The discussions encouraged attendees to reflect on the broader impact of their research, the skills gained from recent challenges, and the shared resources to advance their projects. Participants had the opportunity to reconnect with previous attendees and make new connections. This event reflects the group's commitment to building an inclusive, supportive network where biophysicists can grow together and strengthen professional ties.

Biophysics Week in Lithuania
Vilnius University, Vilnius, Lithuania

Throughout the week, the Lithuanian Biophysical Society hosted more than 30 activities across 5 universities and research institutions in Vilnius and Kaunas, Lithuania's largest cities. Surpassing expectations, more than 270 participants enjoyed invited lectures, lab tours, and hands-on activities covering biomolecular spectroscopy, electrophysiology, cancer research, plant biophysics, electroporation, molecular biophysics of drug design, and more. By representing a wide range of biophysical research topics in Lithuania and demonstrating unique experimental techniques, the organizers aimed to reach a diverse audience ranging from high school students to established researchers. In collaboration with 10 STEAM centers (facilities for boosting science, technology, engineering, arts, and mathematics education) nationwide, a novel spectroscopy-based lab activity was created focused on determining chlorophyll content in leaves. By the end of April, at least 200 high school students will have participated in this formal-education-supplementing activity, further expanding our reach to the scientists-to-be across Lithuania.

IDPSeminars & IDP BPS Subgroup Trainee Symposia
Virtual Event

The Biophysical Society's Intrinsically Disordered Proteins (IDP) Subgroup and IDPSeminars are pleased to announce the successful conclusion of their Trainee Symposium, held during Biophysics Week. The virtual event attracted an impressive 144 attendees, underscoring the vibrant interest in IDP research. The symposium showcased cutting-edge research from emerging junior scientists studying IDPs. The distinguished panel of six judges selected four graduate students and two postdoctoral fellows from an international pool of more than 30 submitted abstracts. The speakers represented institutions from the United States and Europe, highlighting the global reach and collaborative spirit within the IDP research community. The topics presented were diverse yet centrally focused on IDPs, covering a wide range of techniques and approaches, including single-molecule FRET, nuclear magnetic resonance, microscopy, simulations, machine learning, and various biophysical assays. Each presentation was followed by insightful discussions prompted by audience questions. The organizers thank all attendees for their active

BiophysicsWeek
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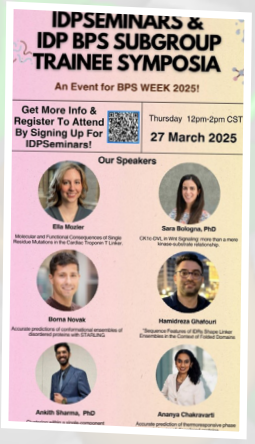
participation, thoughtful questions, and contributions to a dynamic exchange of ideas. Special appreciation goes to the talented trainee speakers, whose presentations exemplified the innovation and creativity driving the field forward and who represent the future of biophysics research focused on IDPs. A special shoutout goes to IDPSeminars for collaborating and helping make this event possible. Given the tremendous success and enthusiasm from the community, the potential to make this an annual or semi-annual symposium is strong and will enable continued building of the community globally and fostering dialogue, particularly with the next generation of scientists, within the field of IDP research. The group looks forward to future events that further strengthen collaboration and excellence within the intrinsically disordered proteins research community. Stay tuned for more exciting opportunities and updates from the IDP Subgroup and IDPSeminars.



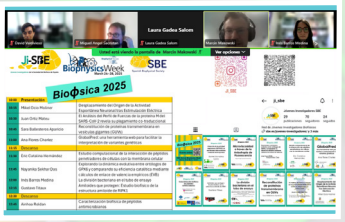
Biophysics Week Seminar at the University of Milano
University of Milano-Bicocca, Bicocca, Italy

As part of Biophysics Week 2025, the Department of Biotechnology and Biosciences at the University of Milano-Bicocca hosted a seminar by *William E. Louch* (University of Oslo). In his talk, "Nanoscale Control of the Heartbeat," Louch presented pioneering research on how nanoscale remodeling of dyadic structures, key sites of Ca^{2+} release in cardiomyocytes, regulates cardiac function. His findings reveal structural features optimizing Ca^{2+} signaling in the healthy heart and how their stress-induced disruption contributes to heart failure, thus highlighting novel therapeutic targets for restoring cardiac function. The event was organized by *Francesco Lodola* and *Antonio Zaza*, with the valuable support of *Antonella Ronchi* and *Reinaldo Alvarez*. Attendees, including students and researchers, gained insights into how advanced imaging and biophysical techniques are transforming our understanding of cardiac physiology. The seminar fostered engaging discussions on therapeutic implications and emerging technologies, reinforcing the importance of interdisciplinary approaches in biophysics.

Highlights from Biophysics Week Events around the World

Spanish Biophysics Week – Bioφsica 2025
Virtual Event

The inaugural edition of Spanish Biophysics Week – Bioφsica 2025 was a resounding success! This online event was designed for early-career researchers working in Spanish institutions. Throughout the week, we shared graphical abstracts as a preview of Friday's main event, where 11 speakers presented their research. The talks were of exceptional quality, sparking engaging discussions in every session. The enthusiasm of the participants and the high standard of the symposia highlight the promising future of biophysics in Spain. The organizers are excited to bring this experience back next year!

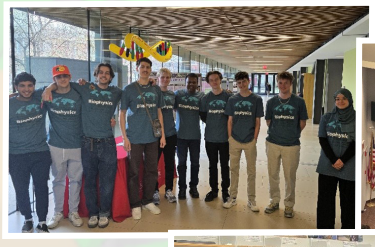


Descubriendo la biofisica – Discovering Biophysics
Universidad de Sonora, Sonora, México

This year, the 10th Biophysics Week was celebrated with great enthusiasm in the Department of Physics at the University of Sonora (UNISON), Sonora, México. A series of talks were presented: "Discovering Biophysics" by *Ana Gloria Villalba*, "Hummingbird Biophysics" by *Amir Maldonado*, "Small Organs: Great Discoveries" by student *Sarah Samaniego*, "The Language of Cells" by student *Alejandro Valdez*, and "Lectins: Molecules for the Detection of Tumor Cells" by *Edgar Acedo*. Special guests included 20 students from CONALEP High School and approximately 15 students from physics and other programs at UNISON. In addition, a visit was made to the biophysics research laboratories of the UNISON Physics Department, where students learned about current research projects. It was a very productive and fun day!

2025 Biophysics Week Celebrations at BSU
Bridgewater State University, Bridgewater, USA

Bridgewater State University (BSU), a public higher education institution serving Southeast Massachusetts, celebrated the 10th Annual Biophysics Week with poster sessions, daily open lab hours, and a public lecture. The poster session, themed "Biophysics Techniques," aimed to educate the general audience about various physics methods used to study biological systems. These self-explanatory posters were crafted by research students from the BSU Single Molecule Biophysics (SMB) Lab. Throughout the week, the BSU SMB lab also hosted daily open lab hours inviting the public to experience "The Magic of Trapping DNA with Light." The highlight of the celebrations was the inspiring "Biophysics Week Lecture" delivered by BPS Past President and Harvard professor *Taekjip (T.J.) Ha*. Delivered in a packed auditorium, Ha's lecture, titled "Single Molecule Views of Nature's Nanomachines," captivated the audience. The Biophysics Week festivities at BSU have sparked newfound interest in the field among many students, fostering curiosity and promising to draw more talent to this exciting and dynamic area of study.

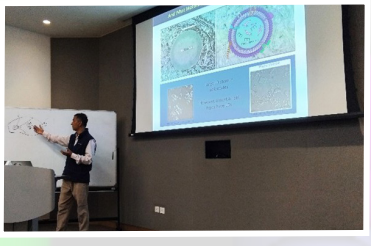


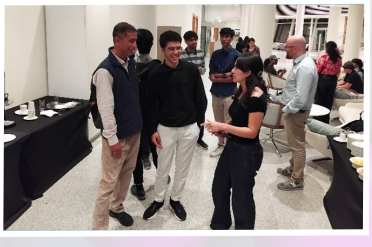
BPS Cameroon Chapter Biophysics Week Celebration
Cameroon

The BPS Cameroon Student Chapter, led by BPS Ambassador *Takembo Clovis*, proudly celebrated the 10th Annual Biophysics Week at HISMIL University Institute on March 24. The event served as both a celebration and a membership drive, drawing more than 80 student participants. During the program, chapter leaders gave a series of informative presentations to introduce students to the field of biophysics and the global biophysics community. Topics included: what is biophysics and the interdisciplinary nature of the field, what do biophysicists do, where do biophysicists work, the Biophysical Society and member benefits, and how to join BPS and upcoming networking opportunities. The event generated strong interest in biophysics, with many students expressing enthusiasm and signing up to become active BPS members.

Inaugural Biophysics Week in the United Arab Emirates
New York University Abu Dhabi, Abu Dubai, United Arab Emirates

The inaugural Biophysics Week in the United Arab Emirates took place at New York University Abu Dhabi on March 27, marking a vibrant celebration of biophysics beyond disciplinary boundaries. The event featured invited talks by *Alessandro Ianiro* (KU Leuven) and *Roop Mallik* (IIT Bombay) and culminated in an evening iftar/dinner mixer and a lecture for a broad audience by Mallik titled "From Physics to Physiology: Manipulating Nanoscale Machines to Control Fat." The gathering drew faculty, researchers, and a notably large group of undergraduate students, who had the unique opportunity to learn about the career path of a biophysicist firsthand. The event fostered engaging conversations and lively exchanges during the mixer and after the lectures.





Cheers! for Volunteers

Jie Xiao

Jie Xiao

Committee for Professional Opportunities for Women (CPOW)

Is this your first volunteer position for BPS? If not, what other positions have you held?

This position is my first time volunteering on a committee. I previously served as the inaugural Chair of the Physical Cell Biology Subgroup, leading efforts to establish and grow this new community within BPS. Additionally, I worked with my colleagues and organized two BPS Thematic Meetings, one in Taiwan and one in India. These experiences allowed me to contribute to the Society's mission to convene and connect a global community of biophysicists.

Why do you volunteer?

Volunteering gives me a meaningful way to engage more deeply with the Biophysical Society and connect with my fellow biophysicists. It's an opportunity to contribute to the community that has supported my professional growth while fostering collaborations and advancing shared goals.

What has been a highlight from your volunteer experience?

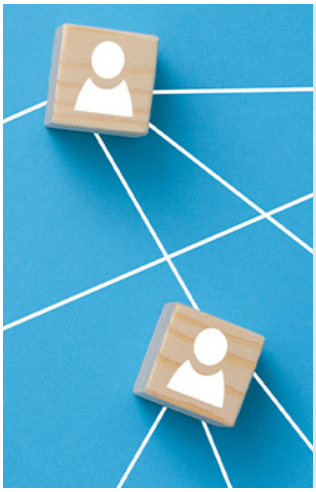
Getting to know people and being inspired, regardless of their career stages. For example, I recently co-organized a Biophysics Week event titled "Women in Biophysics: Journeys and Challenges." This event was a collaborative effort with two exceptionally talented young biophysics trainees: *Divya Yadav*, a graduate student at Johns Hopkins University, and *Lauren Conger*, an undergraduate student at Texas Tech University. It was truly impressive to witness their dedication, creativity, and professionalism throughout the process—from conceptualizing the event to executing the plan and moderating the live interview session. Their contributions exemplify the incredible talent within our community and underscore why I enjoy working alongside such individuals.

Do you have advice for others who might be thinking about volunteering?

Simply put—just do it! Volunteering is an incredibly fulfilling experience that allows you to give back to the community while developing new skills, expanding your network, and gaining fresh perspectives. The connections you make and the impact you can have are well worth the effort.

When not volunteering for BPS, what do you work on?

As an academic, much of my time is dedicated to research and mentoring students, both of which are central to my professional life. Outside of work, I enjoy a variety of hobbies that keep me grounded and energized—coding, reading, gardening, running, cooking, and more. I always wish I would have more time or be more efficient in getting things done, but I also realize that I should take some things slowly to enjoy them fully.



Join the BPS PUI Network

Are you looking to connect with other PUI faculties or interested in obtaining academic positions at Primarily Undergraduate Institution (PUIs)? Join the BPS PUI Network. The network creates opportunities for current PUI faculty to network and share experiences with one another. Members of the Network exchange tips and ideas such as teaching strategies, latest trends in education technology, online teaching, and more. Graduate students and postdocs interested in obtaining academic positions at PUIs are encouraged to join.

Questions can be directed to *Ethan Rogers-Yosebashvili* at eyosebashvili@biophysics.org.

www.biophysics.org/PUI-Network

Cole Award winners (from left to right), Dan Minor, Baron Chanda, and Crina Nimigean

Channels, Receptors and Transporters Subgroup: Kenneth S. Cole Award Winners

The Biophysical Society is pleased to announce the 2025 recipients of the Kenneth S. Cole Award in recognition of their groundbreaking contributions to the field of ion channel biophysics. For an extended version of this article, go to www.biophysics.org/blog/announcement-of-the-kenneth-s-cole-award-recipients.

Baron Chanda
Washington University in St. Louis, USA
Baron Chanda is widely recognized for his pioneering research on ion channel gating and conformational dynamics. He has developed both theoretical frameworks and experimental approaches—most notably, single-molecule fluorescence techniques—to quantitatively assess the energetics of gating transitions. These unbiased methodologies have allowed his group to map the allosteric networks that govern ion channel responses to diverse stimuli. His studies on pacemaker channels have provided critical insights into the molecular and structural basis of hyperpolarization-dependent gating. By integrating single-molecule biophysics, structural biology, and electrophysiology, Dr. Chanda has made major contributions to our fundamental understanding of ion channel function.

Crina Nimigean
Weill Cornell Medical College, USA
Crina Nimigean is a leading biophysicist known for pioneering work on ion channel selectivity, gating, and regulation. Her research has reshaped understanding of potassium and cyclic nucleotide-gated channels, revealing novel lipids and enzyme modulation mechanisms, as well as significant breakthroughs in ion permeation and selectivity that challenged conventional models. She uncovered key insights into ligand gating and voltage sensor dynamics and revealed how small molecules repair channels with epilepsy-linked mutations. Her groundbreaking cryo-EM studies provided the first structural evidence of ball-and-chain inactivation in potassium channels, setting new standards in the field.

Dan Minor
University of California, San Francisco, USA
Dan Minor has made groundbreaking contributions to ion channel structural biology, integrating protein folding principles, physical chemistry, and structural analysis to uncover fundamental ion channel mechanisms. His pioneering studies on transmembrane domain packing using random mutagenesis provided a conceptual breakthrough, and his early work on calcium channel β-subunit structure has been highly influential. Minor transformed understanding of K2P channel regulation identifying novel small molecule modulatory mechanisms. His work on bacterial voltage-gated sodium channels (BacNaV) provided critical insights into temperature sensing. His recent cryo-EM structure of human $Ca_V1.2$ bound to the endoplasmic reticulum chaperone EMC has provided fundamental insights into ion channel biogenesis.

Biophysical Society Conferences

Membrane Fusion and Budding

Estes Park, Colorado | October 5-10, 2025

This meeting will bring together trainees, emerging scientists, and leaders in the fields of membrane fusion and budding over the course of four days. The topics will cover many subfields of the fusion and budding disciplines, including, but not limited to, fusion and budding at synapses and neuroendocrine cells (exo- and endocytosis), in relation to the function of membrane-bound organelles like mitochondria and extracellular vesicles, and in the context of host/virus interactions, cell-cell fusion, and autophagy. Approaches to study these processes range from organisms and cellular systems to reconstituted systems and computational modeling of membrane fusion and budding.

The expectation is that interactions between investigators working in such diverse fields, occurring within a positive and supportive environment at this BPS Conference, will encourage new and productive collaborations, and ultimately spur further advances within these fields.

Abstract Submission Deadline:
June 16, 2025

Early Registration Deadline:
July 11, 2025

ORGANIZING COMMITTEE

Arun Anantharam, The University of Toledo, USA
Michelle Knowles, University of Denver, USA
Ling-Gang Wu, NIH, USA

SPEAKERS

Prabhodh Abbineni, Loyola University of Chicago, USA
Nihal Altan-Bonnet, NIH, USA
Halil Aydin, University of Colorado – Boulder, USA
Tamas Balla, NICHD-NIH, USA
Patricia Bassereau, Institut Curie, France
Juan S. Bonifacino, NICHD-NIH, USA
Julie Brill, Hospital for Sick Children, Canada
Nils Brose, Max Planck Institute for Multidisciplinary Sciences, Germany
Axel Brunger, Stanford University, USA
Itay Budin, University of California, San Diego, USA
Jaqueline Burre, Cornell Medical College, USA
Debasis Das, Tata Institute of Fundamental Research, India
Jiajie Diao, University of Cincinnati, USA
Andrew Ewing, University of Gothenburg, Sweden
Heidi Hamm, Vanderbilt University, USA
Hanaa Hariri, Wayne State University, USA
Michael Hoppa, Dartmouth College, USA
Tijana Ivanovic, NIH, USA
Reinhard Jahn, University of Göttingen, Germany
John Jimah, Princeton University, USA
Erik Jorgensen, University of Utah, USA
Volker Kiessling, University of Virginia, USA
Jeff Knight, University of Colorado, Denver, USA
Shyam Krishnakumar, Yale University, USA
Ya-Wen Liu, National Taiwan University College of Medicine, Taiwan
Fred Meunier, University of Queensland, Australia
Mary Munson, UMass Chan Medical School, USA
Noreen Reist, Colorado State University, USA
Avital Rodal, Brandeis University, USA
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Jason Vevea, St. Jude Children's Research Hospital, USA
Julia von Blume, Yale University, USA
Henrique von Gersdorff, Vollum Institute, USA
Lois Weisman, University of Michigan, USA
Bettina Winckler, University of Virginia, USA
Yongli Zhang, Yale University, USA
Qiangjun Zhou, Vanderbilt University, USA

For more information, visit www.biophysics.org

Members in the News


Steven Block

Steven Block, Stanford University and Society member since 1988, was awarded the 2025 Benjamin Franklin Medal in Life Science.


Paulo Almeida

Paulo Almeida, University of North Carolina, Wilmington and Society member since 1989, received a 2024 Cottrell SEED Award for Exceptional Opportunities.

Grants & Opportunities

Sony Women in Technology Award with *Nature*

This award recognizes and celebrates the remarkable women spearheading advancements in technology, driving positive change for society and the planet. This includes women creating physical or digital tools and solutions, and/or using mathematical and physical science to achieve practical goals. Three women will receive awards of $250,000 each.

Who can apply: To apply, one must self-identify as a woman, work in technology/science, and be in the early to mid-career phase (received their undergraduate degree within the last 25 years).

Deadline: May 30, 2025

Website: https://womenintechnology.sony.com/application-guide

2025 Cottrell Scholar Award

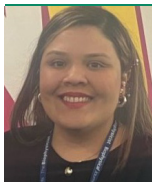
This award honors and helps to develop outstanding teacher-scholars who are recognized by their scientific communities for the quality and innovation of their research programs and their academic leadership skills.

Who can apply: Applicants must be early career faculty at a US or Canadian research university or primarily undergraduate institution. Eligible applicants are tenure-track faculty who hold a primary or courtesy appointment in a chemistry, physics, or astronomy department that offers bachelor's and/or graduate degrees in the applicant's discipline.

Deadline: July 1, 2025

Website: https://rescorp.org/cottrell-scholars/guidelines

Student Spotlight


Stephannie Rosario-Garrido

Stephannie Rosario-Garrido
Rutgers New Jersey Medical School

What skill have you learned in your studies that you find useful in other aspects of your life?

One skill I've learned in my studies that I find particularly useful in other aspects of my life is discipline. Whether it's sticking to a routine, meeting deadlines, or maintaining consistency with my personal or academic goals, discipline is key to making progress and pushing through even when motivation wanes or obstacles arise. This skill also teaches me the value of perseverance and commitment in life.

Biophysical Society

6903 Rockledge Drive, Suite 540
Bethesda, Maryland 20817

BPS Bulletin
THE NEWSLETTER OF THE BIOPHYSICAL SOCIETY

May 2025

Give the Gift of Membership

Give a graduate in your life a meaningful gift that will enrich their career with opportunities to build relationships that last a lifetime, help them find mentors, get involved in the community, share their research, and access many member benefits!

Give the gift of BPS membership or encourage your students or graduates to join and take advantage of low membership rates, starting at just $25!

www.biophysics.org/giftmembership

BPS Important Dates

Estes Park Proton Reactions BPS Conference Early Registration Deadline
May 5, 2025

Copenhagen Thematic Meeting Late Abstract Deadline
May 12, 2025

Student Chapter Spring Application Deadline
May 15, 2025

***Biophysical Journal* Mechanics and Thermodynamics of the Living Cell Special Issue Submission Deadline**
May 31, 2025

Voting Opens for BPS Elections
June 1, 2025

Estes Park Membrane Fusion and Budding BPS Conference Abstract Deadline
June 16, 2025

Please visit www.biophysics.org for a complete list of upcoming BPS Important Dates.