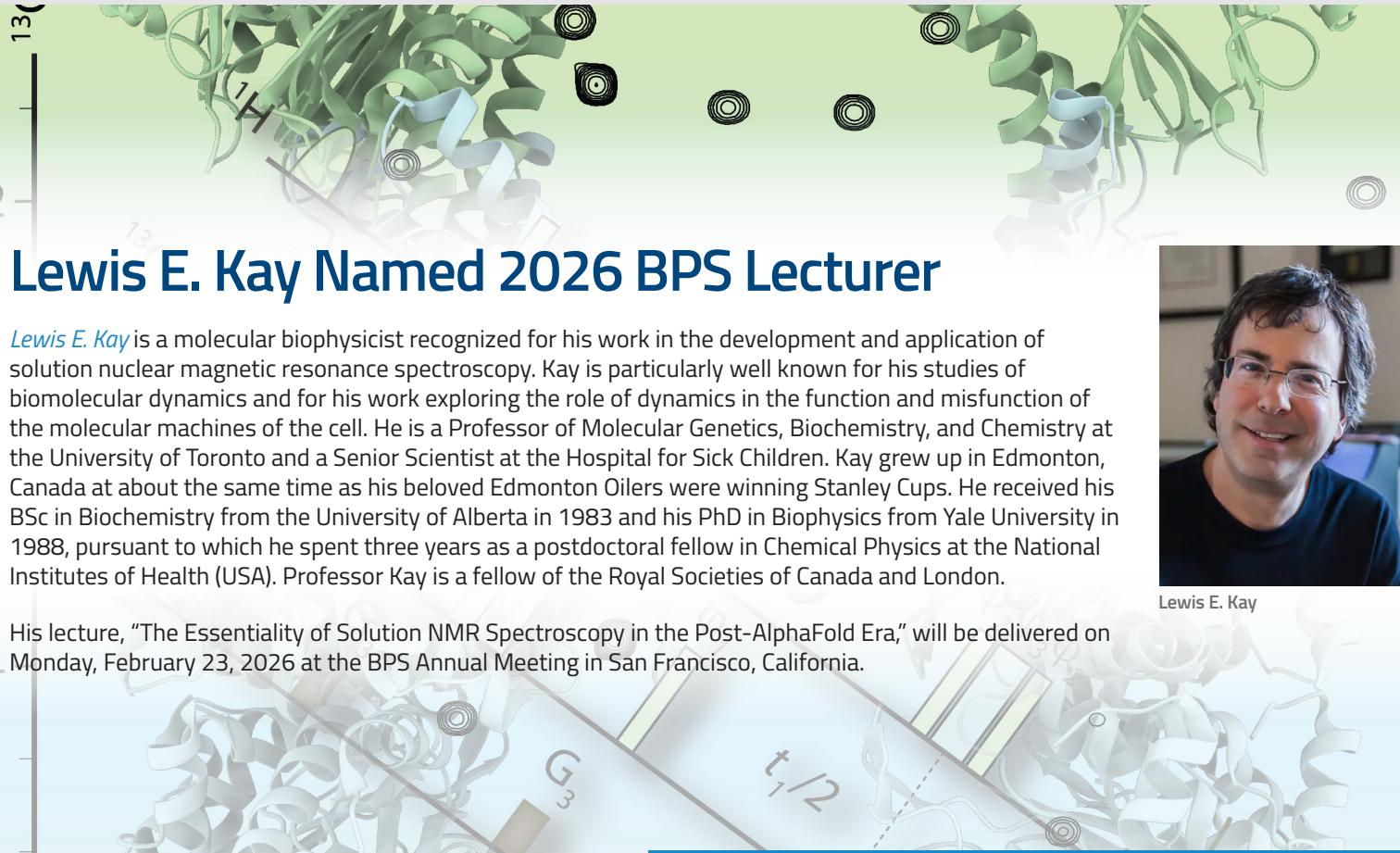


# BPS Bulletin

THE NEWSLETTER OF THE BIOPHYSICAL SOCIETY



## Lewis E. Kay Named 2026 BPS Lecturer

**Lewis E. Kay** is a molecular biophysicist recognized for his work in the development and application of solution nuclear magnetic resonance spectroscopy. Kay is particularly well known for his studies of biomolecular dynamics and for his work exploring the role of dynamics in the function and malfunction of the molecular machines of the cell. He is a Professor of Molecular Genetics, Biochemistry, and Chemistry at the University of Toronto and a Senior Scientist at the Hospital for Sick Children. Kay grew up in Edmonton, Canada at about the same time as his beloved Edmonton Oilers were winning Stanley Cups. He received his BSc in Biochemistry from the University of Alberta in 1983 and his PhD in Biophysics from Yale University in 1988, pursuant to which he spent three years as a postdoctoral fellow in Chemical Physics at the National Institutes of Health (USA). Professor Kay is a fellow of the Royal Societies of Canada and London.



Lewis E. Kay

His lecture, "The Essentiality of Solution NMR Spectroscopy in the Post-AlphaFold Era," will be delivered on Monday, February 23, 2026 at the BPS Annual Meeting in San Francisco, California.

## 2025 BPS Elections Now Open

Voting is open June 1 through August 1

[www.biophysics.org/election](http://www.biophysics.org/election)



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Stay Connected with BPS





Lynmarie K. Thompson

support BPS members in a time of increasing uncertainty for the scientific enterprise.

Ongoing concerns—such as significant proposed funding cuts and workforce reductions across institutions in the United States—formed the backdrop for much of the discussion. Council members considered how the Society could offer meaningful, sustainable support to those affected. One major outcome was an expansion of the Bridging Funds Travel Awards program. This initiative, which has long helped members facing funding or employment gaps attend the BPS Annual Meeting, will see its funding grow significantly. For BPS2026, Council approved an increased commitment of \$25,000, and BPS will launch a campaign to raise an additional \$25,000 in matching funds from members who are able to give. Importantly, members will be able to apply for both Bridging Funds and regular Travel Awards, increasing access for those in need.

Since early January, BPS has engaged in numerous calls to action, supported coalition letters, and sent messages about US federal actions, including the National Institutes of Health travel ban, caps on indirect costs, reductions in force, and funding cuts. After reviewing the full list of activities provided by the BPS Public Affairs Committee, Council requested a mechanism for sharing this consolidated information with members. As a result, the information has been added to the BPS website in a new section titled "Government Policy Changes: BPS Actions and Resources," ([www.biophysics.org/policy-advocacy-stay-informed/government-policy-changes-bps-actions-and-resources](http://www.biophysics.org/policy-advocacy-stay-informed/government-policy-changes-bps-actions-and-resources)), which will be updated continually as new actions occur.

Council also addressed recent federal policy changes and their potential impact on Society programs. Following the issuance of two Executive Orders in January—"Ending Radical and Wasteful Government DEI Programs and Preferencing" and "Ending Illegal Discrimination and Restoring Merit-Based Opportunity"—we reached out to the law firm that helped us update our Code of Conduct and develop our Ethics Guidelines, (<https://www.biophysics.org/about-bps/governance/ethics-guidelines>) and asked them to do a high-level risk assess-

## Council Looks Ahead with Strategic Focus and Member Support in Mind

The Biophysical Society Council gathered in May for its annual mid-year meeting, a time traditionally devoted to discussing strategic priorities and addressing challenges on the horizon. This year's meeting was no exception, as Council focused on how best to

ment and provide legal guidance on our diversity, equity, and inclusion programs and initiatives. Council reviewed the legal guidance and affirmed several key commitments:

1. BPS remains steadfast in our commitment to a diverse and inclusive community;
2. We will continue the ongoing work and programs already in place, including JUST-B, Black in Biophysics, and Travel Awards; and
3. We are taking steps to ensure our programs are open to all and compliant with current regulations, so that members can participate fully without concern.

These principles informed the important task of updating our 2022–2025 Strategic Plan to reflect evolving language and expectations, while holding firm to our values. Recognizing that some terms have become politically charged, we are revising language thoughtfully and inclusively. The updated draft plan—currently being reviewed by several member groups—will soon be shared with the full membership for feedback. While our Mission and Vision remain unchanged, we've refined our Core Values to include:

- Scientific excellence,
- Integrity and transparency,
- Universal access and opportunity,
- Broad representation and belonging,
- Community building.

The definitions and details supporting our strategic goals are important and will be shared soon, but as a preview, our updated goals are to:

- Champion biophysics in a changing world,
- Advance knowledge through connection and collaboration,
- Foster an inclusive and representative global community,
- Invest in the people and future of biophysics.

In other business, the Committee on Sustainability proposed and Council approved "Biophysics for Sustainability" as the name of a new abstract category for the Annual Meeting. You can learn more about this new category and see all the abstract categories for the 2026 meeting on pages 12–13.

Council also enthusiastically approved the Publications Committee's recommendation to appoint BPS member *Melanie Cocco* as the next Editor-in-Chief of *Biophysical Reports*. Cocco will replace the Journal's inaugural Editor-in-Chief, *Jörg Enderlein*, in January 2026.

Tasked with finding a solution for potentially expanding the number of Subgroups, the Subgroup Task Force presented a recommendation to Council to have four of the symposium sessions in the regular Annual Meeting programmed by a rotation of Subgroups each year beginning in 2027. There are a lot of details to work out, but Council was excited about the opportunity to showcase the Subgroups in the main program and reduce the logistical pressures and space constraints that have limited us to having 18 Subgroups holding all of their sessions on Subgroup Saturday.

Council also provisionally approved a new Subgroup, with full details to be announced soon. We look forward to the opportunity for members to propose new Subgroups that enable

BPS to welcome and highlight emerging fields in our vibrant community.

As always, our decisions are grounded in our mission to lead an innovative global community working at the interface of the physical and life sciences, across all levels of complexity, and our vision to harness the full potential of biophysics to seek knowledge, improve the human condition, and preserve the planet for future generations. Council is grateful to our members for your continued engagement and feedback—especially in challenging times—and we look forward to working together toward a vibrant and resilient future for the biophysics community.

—*Lynmarie K. Thompson*, President  
—*Jennifer Pesanelli*, Executive Officer

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#### **Biophysical Journal**

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## Use Your Expertise to Make a Difference!

Be an inspiration to your community and help change the lives of those interested in or studying science. Sign up to be a mentor, K-12 classroom visitor, speaker, science fair judge, or student chapter sponsor. Access to the network is free for all BPS members and non-members.

For more information, visit  
[biophysics.org/find-a-biophysicist](http://biophysics.org/find-a-biophysicist)



Thayaparan Paramanathan

# Thayaparan Paramanathan

## Area of Research

Quantifying drug-DNA interactions at the single-molecule level using optical tweezers

## Institution

Bridgewater State University

## At-a-Glance

*Thayaparan "Thaya" Paramanathan*, raised in Sri Lanka amid civil unrest, overcame profound hardship to become a professor of physics at Bridgewater State University, where he conducts cutting-edge research in biophysics and mentors undergraduates. His journey—from studying by kerosene lamp in a war zone to exploring molecular drug-DNA interactions—reflects his deep commitment to science, education, and inspiring the next generation of biophysicists.

*Thayaparan "Thaya" Paramanathan* was born in Jaffna, in the Northern Province of Sri Lanka. When he was a baby, the family moved to the capital city of Colombo, where his parents were employed. His early years were spent in Colombo, until the tragic events of the "Black July" riots in 1983 in which many people were killed (estimates on the number who were killed range from 400 to 5,000) and 150,000 lost their homes. These riots are recognized as the start of the Sri Lankan civil war. "I vividly remember fleeing our burning house as a child, the devastation etched in my memory as my parents wept over the loss of everything they had worked so hard to build. Forced to return to Jaffna, we rebuilt our home only for it to be destroyed within a decade, bulldozed during the civil war," Thaya recalls. "Growing up in the heart of a war zone was marked by unimaginable challenges. With no access to electricity, I studied by the dim glow of kerosene lamps, with fuel rationed carefully due to restricted supplies. Many mornings were spent queuing for hours just to secure bread or essential groceries. Despite these hardships, the community in Jaffna remained steadfastly focused on education—it was seen as the sole path to escape the turmoil and build a better future. This unyielding commitment to learning became an enduring source of hope and resilience."

Thaya's high school, St. John's College in Jaffna, became a crucial pillar of support when it recognized his family's struggles. "The institution not only provided me with a full scholarship but also helped shape me into the person I am today. The college principal, *Mr. Thanapalan*, identified my potential as a teacher and mentor—a recognition that ultimately guided me towards the career path I passionately pursue today," he shares.

He next attended the University of Jaffna, in his hometown. "Growing up in a war zone and grappling with the daily struggle for survival was, without a doubt, the biggest challenge of my life. Yet, it was the unwavering support of my community and the dedication of professors at the University of Jaffna

that gave me the opportunity to persevere," Thaya reflects. "These professors, who risked their lives to provide us with a strong foundation in physics, were instrumental in preparing me to pursue a career in this field. Their courage and commitment continue to inspire me as I reflect on my journey."

He was inspired by his high school physics teacher, *Mr. Varnam*, to study physics as an undergrad and did not take any biology courses in either high school or as an undergraduate. "However, after graduation, I discovered biophysics through a conference presentation in Sri Lanka, as an interdisciplinary approach applying physics to understand biological systems. Intrigued by its potential to address global health challenges, I decided to pursue biophysics during my graduate studies," he provides.

Thaya entered a PhD program at Northeastern University in Boston, Massachusetts, that allowed him to combine a passion for optics with biological research. He explored optical tweezers and their groundbreaking applications in studying biological systems. He joined the lab of *Mark Williams* to delve deeper into the world of biophysics. "I used optical tweezers to investigate the interactions between small molecules and DNA, further cementing my fascination with the field," he explains. "Single-molecule studies of the drug-DNA interactions offer a detailed molecular-level insight into the dynamic changes that occur in DNA during drug binding. This intricate understanding paves the way for the development of more effective and precisely designed therapeutics in the future."

After completing his PhD, Thaya undertook postdoctoral training at Brandeis University in Waltham, Massachusetts. He worked under the mentorship of two prominent biophysicists, *Jeff Gelles* and *Jane Kondev*. "During this phase of my research, I explored how competitors induce dissociation using total internal reflection fluorescence to gain deeper insights into this intriguing phenomenon," he shares.

Thaya is now a professor of physics at Bridgewater State University (BSU), a public higher education institution located in southeastern Massachusetts. "In our research, we are focused on studying the interactions of various small-molecule drugs with DNA. Current projects include Doxorubicin, Netropsin, Mitoxantrone, and BI-3802. The most scientifically rewarding aspect of my work is how quantitative data and physics models provide molecular-level insights into biological interactions, laying the foundation for improved drug design in the future," he says. "However, the greatest fulfillment comes from empowering our undergraduate researchers to engage in cutting-edge research and inspiring their passion for understanding science through hands-on exploration. I feel fortunate to be at an institution like BSU, where I can pursue my passion for educating underprivileged students and introducing them to the wonders of biophysics. The biggest reward comes from seeing my students succeed in their career and life."

Thaya adds, "I have been a member of BPS since 2007, and it has consistently been a fruitful experience. Presenting my research and receiving feedback from specialists in the field has been invaluable, in addition to fostering collaborations and opening doors to job opportunities. Notably, I met my post-doctoral advisor through BPS, which led to an incredible career opportunity. Serving on the Education Committee has been equally fulfilling, allowing me to build lasting friendships and visit

various universities to share my research and learn about their institutions."

When asked about the future of biophysics, Thaya mentions the importance of fostering young minds to meet the challenges humanity will face in the future. "The COVID-19 pandemic highlighted the critical role biophysics plays in addressing global challenges. By uncovering the mechanisms of virus packaging and analyzing the details of various interactions, researchers were able to accelerate vaccine development significantly," he declares. "To meet future challenges, we need more scientists to explore this remarkable field. My mission is to raise awareness of biophysics among the younger generation and inspire the creation of more biophysicists. Additionally, if time permits, I aim to integrate this fascinating discipline into the undergraduate curriculum in Sri Lanka."

If he weren't a biophysicist, Thaya would have been a basketball coach. "If you were to return to my hometown of Jaffna, you'd find that more people know me for basketball than for my work in biophysics," he jokes. To early-career biophysicists, he offers, "Welcome to a field with incredible opportunities and unlimited fun in exploration. Join BPS and connect with a supportive community that will advance your career. As I always tell my students, 'Do what you love, and you will not work a single day.'"

# Biophysical Journal Call for Papers



## Special Issue: Modeling Biology at Multiple Scales: From Macromolecules to Cells, Dedicated to Jie Liang

**Editors:** *Ao Ma, University of Illinois Chicago*  
*Ruth Nussinov, National Cancer Institute, National Institutes of Health*  
*Jianhan Chen, University of Massachusetts Amherst*  
*Jianhua Xing, University of Pittsburgh*

**Deadline for submission: November 30, 2025**

For more information, visit [www.biophysj.org](http://www.biophysj.org)



## Applications Are Open for the Biophysical Society 2025–2026 Congressional Fellowship

Interested in using your science skills to inform science policy? Does spending a year working on Capitol Hill in Washington, DC, helping develop policy sound exciting? The Biophysical Society's Congressional Fellowship program ([www.biophysics.org/policy-advocacy/congressional-fellowship](http://www.biophysics.org/policy-advocacy/congressional-fellowship)) is your opportunity to participate directly in the process of law-making that affects how research is funded and regulated. This year-long opportunity provides Fellows a chance to use their science knowledge to inform the public policy process. Fellows will gain firsthand knowledge and experience on how Congress works and participate in the esteemed AAAS Science and Technology Policy Fellows program that provides ongoing training and networking opportunities during the fellowship year and beyond. Visit [www.biophysics.org/policy-advocacy/congressional-fellowship](http://www.biophysics.org/policy-advocacy/congressional-fellowship) for more details about the program or contact *Leann Fox* at [fellows@biophysics.org](mailto:fellows@biophysics.org) or (240) 290-5606. The application deadline is December 12, 2025.

### Advocacy Over August

From August 4 through September 1, Members of Congress will be in their states and districts for the August Congressional "in-district" work period. During this time, your Senators and Representatives will be meeting with constituents and campaigning for the upcoming elections. This district work period presents a perfect opportunity to renew existing relationships and build new ones with your federally elected officials.

Take advantage of the resources that BPS has created for your use in the Policy and Advocacy Center on the website, from the Take Action Center ([www.biophysics.org/policy-advocacy/take-action](http://www.biophysics.org/policy-advocacy/take-action)), to the Advocacy Toolkit, to our newly created page tracking all federal and BPS actions since January 2025 ([www.biophysics.org/policy-advocacy/stay-informed/government-policy-changes-bps-actions-and-resources](http://www.biophysics.org/policy-advocacy/stay-informed/government-policy-changes-bps-actions-and-resources)). Learn about the issues and legislation that BPS is tracking on behalf of members and take action on issues covering the National Institutes of Health, the National Science Foundation, and the Department of Energy.

### Strategies for Meeting with Congress

- **Be Prepared.** Most people don't approach their Members of Congress with a well-researched, well-rehearsed pitch. Thoughtful arguments, good data, and persuasive stories are remembered.
- **Tell a Personal Story.** Firsthand accounts of the impact that policies have on constituents have the greatest effect. Think of how a policy might affect you, your lab, staff, and research.
- **Use Numbers if You Have Them.** Quantify the impact on your lab, academic institution, and research grants.
- **Be Respectful.** Science needs allies on both sides of the political aisle. Regardless of your personal political beliefs, it is important to sit down and converse in a respectful manner, even if you ultimately agree to disagree on the subject.
- **Go in Groups.** Join together with colleagues to provide a broader perspective of the impact that policies are having on research. Bring colleagues from other departments, research areas, or even academic institutions.

- Talk to Staff. Although you may aim to speak with your elected officials, don't bypass staff, particularly those working on appropriations, science, and healthcare. Staff do the heavy lifting on policy in the office, so taking time to speak with them is invaluable.
- Follow Up. Congressional offices are often overworked, so it is important to follow up on your communications with a phone call or an email. This allows you to reiterate key points and provide additional numbers and information regarding points that you made.
- Maintain a Presence. Advocacy isn't a one-time action; it's a 365-day-a-year action. Consider it an ongoing opportunity to build relationships with an office and provide input on issues affecting scientific research.

## OSTP's Head Calls Funding Cuts a Revitalization Opportunity

*Michael Kratsios*, science adviser to President *Donald Trump* and head of the White House Office of Science and Technology Policy (OSTP), delivered a hard message to the National Academy of Sciences on May 19: the US research community needs to learn how to thrive with less money from the federal government. According to Kratsios, the country has received "diminishing returns" on the government's investment since 1980, adding that the "slowdown" requires "new methods and approaches" to supporting research. The grant cuts, driven by the Department of Government Efficiency, should bring "a moment of clarity." Kratsios called for a return to "gold-standard" science and to restore public confidence in the research being conducted at academic institutions.

The National Institutes of Health currently have a budget of \$48.3 billion per year. The White House proposes cutting spending by 37.2%, or \$18.0 billion, reducing the total budget to \$30.3 billion. The National Science Foundation has a current budget of \$8.8 billion for fiscal year 2025 (FY25), and the White House proposes a reduction of 55.8%, or \$4.9 billion, leaving the agency with a total of \$3.9 billion for FY26, if ap-

proved. The most modest cut to funding is to the Department of Energy Office of Science. It has a current budget of \$8.2 billion, which would be reduced to \$7.1 billion for FY26 under the new proposal, representing a reduction of 13.9%.

## Around the World

### New Zealand, Betting on Innovation and Economic Growth, Cuts Existing Science Funds

The New Zealand government has released its budget for this year, which unfortunately continues to leave science short-shrifted for another year. The government has made clear its intent to reallocate funding to boost the economy and encourage international investment in science and innovation. The budget sees NZ\$20.0 million going toward merging the seven existing national science bodies known as "Crown Research Institutes" into three new Public Research Organisations focused on earth sciences, the "bioeconomy," and health and forensic sciences. Another NZ\$5.8 million will go toward establishing a scientific advisory council for the prime minister and NZ\$84.6 million will be allocated over four years for establishing Invest NZ, an agency tasked with attracting foreign investment into research and innovation.

These initiatives are being funded by cuts to many other areas of science, including the Strategic Science Investment Fund, which sees a reduction of NZ\$24.0 million; the Health Research Fund, which will lose NZ\$17.0 million; and the Catalyst Fund, which supports international collaborations and whose funding will be reduced by NZ\$12.0 million. The Endeavour Fund, which comprises New Zealand's largest source of funding through competitive grants, remains flat at NZ\$245.0 million; it should be noted that the Endeavour Fund has canceled all applications for 2026 during the mergers of the Crown Research Institutes. Ultimately, science will receive NZ\$1.2 billion this year, down about NZ\$45.0 million from last year's budget.

## By the Numbers

In 2024, the BPS website logged 1,477,237 pageviews.

## Know the Editor



**Sua Myong**  
Boston Children's Hospital  
Editor, Genome Biophysics and  
Nucleic Acids  
*Biophysical Journal*

Sua Myong

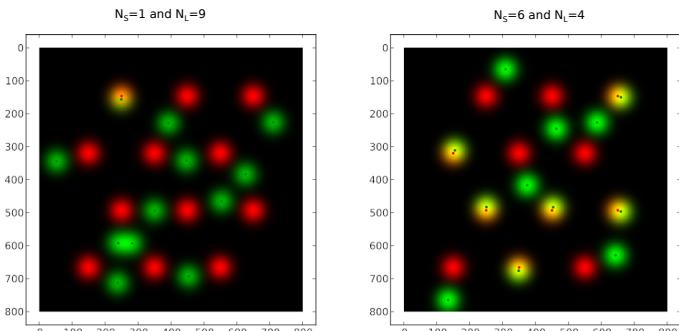
### What are you currently working on that excites you?

I'm fascinated by two interconnected phenomena. The first is how disordered protein molecules, at high concentrations, transition into liquid-like droplets known as "condensates"—micron-scale molecular gatherings with fluid properties. When these condensates lose their liquid-like nature and shift to gel or solid-like states, they can trigger toxic protein aggregation, fueling devastating neurodegenerative diseases. We recently uncovered that these molecules assemble into nanoscale particles, called "nanoclusters," before merging into condensates. By capturing individual nanoclusters on our imaging surface, we precisely measured their size and material properties, offering a new window into this process. Second, the same disordered protein binds RNA co-transcriptionally—an interaction that we analyzed by using a newly implemented single-molecule assay. Strikingly, disease-linked mutants of this protein exhibit defective RNA binding, diverging from the wild-type behavior. This malfunction at the molecular scale may help explain the pathogenic mechanism behind neurodegeneration.

### At a cocktail party of non-scientists, how would you explain what you do?

I'm a single-molecule biophysicist, which means I study how tiny molecules—like DNA, RNA, and proteins—move and interact in real time. To explain what I do, I sometimes bend, twist, or even dance to mimic their dynamic motions! Picture cars zipping down a highway, animals crossing a road, or birds landing briefly before taking off again—that's how molecules behave. Because my research focuses on disease-related proteins, I compare healthy molecules to mutant ones, helping uncover how molecular malfunctions drive diseases. Many illnesses without treatments stem from unknown molecular causes, so understanding these tiny movements can unlock new paths for drug discovery—just like it did for HIV!

## Editor's Pick



### *Biophysical Journal*

Pair cross-correlation analysis for assessing protein co-localization

*Pintu Patra, Cecilia P. Sanchez, Michael Lanzer, and Ulrich S. Schwarz*

"Understanding how molecules organize and reorganize in living cells is fundamental to biophysics, with virtually all cellular functions depending on spatial arrangements of biomolecules. While super-resolution microscopy has revolutionized our ability to visualize molecular structures at the nanoscale, extracting quantitative information about co-localization and separation distances between different molecular species remains a major challenge, especially in cases in which it is hard to insert a FRET probe. Measuring how distances track over dynamic biological processes like cell division, migration, or disease progression is an even bigger headache. In this month's issue of *Biophysical Journal*, Patra et al. present a breakthrough solution to this problem by developing a theoretical framework for pair cross-correlation analysis. Their work provides analytical expressions that connect measured correlation profiles to actual molecular parameters, enabling estimation of separation distances and molecular sizes from two-color super-resolution images. Go to the article ([https://www.cell.com/biophysj/fulltext/S0006-3495\(25\)00138-9](https://www.cell.com/biophysj/fulltext/S0006-3495(25)00138-9)) to see this derived and validated on malaria-infected red blood cells and to see the first quantification of the dramatic cytoskeletal reorganization during malaria infection!"

Version of Record Published March 12, 2025  
DOI: <https://doi.org/10.1016/j.bpj.2025.03.002>

# Members in the News



Thayaparan  
Paramanathan

*Thayaparan Paramanathan*, Bridgewater State University and Society member since 2007, received the Faculty and Librarian Award for Excellence in Academic Advising.



Eva Nogales

Two Society members were elected as Foreign Members of the Fellowship of the Royal Society:

*Eva Nogales*, University of California, Berkeley and Howard Hughes Medical Institute, and Society member since 2000; and *Terrence Sejnowski*, Salk Institute and Society member since 1983.



Thomas Pollard

*Thomas Pollard*, Yale University and Society member since 1980, won the 2025 Connecticut Medal of Science.

# Grants & Opportunities

## National Academy of Sciences (NAS) Jessie Stevenson Kovalenko Medal

This medal is awarded every two years for outstanding research in the medical sciences and comes with a \$25,000 award plus an additional \$50,000 for research. The award was designed to recognize achievements made in the fields of medical sciences.

**Who can apply:** Self-nominations are not accepted. International nominees are eligible.

**Deadline:** October 6, 2025

**Website:** [www.nasonline.org/award/jessie-stevenson-kovalenko-medal/](http://www.nasonline.org/award/jessie-stevenson-kovalenko-medal/)

## NAS Award in Molecular Biology

This award is supported by Pfizer Inc. and recognizes a recent notable discovery in the field of molecular biology by a young scientist. The award is presented with a medal and a \$25,000 prize.

**Who can apply:** Self-nominations are not accepted. The nominee must be younger than 50 years of age at the time of the deadline and must be a citizen of the United States.

**Deadline:** October 6, 2025

**Website:** [www.nasonline.org/award/nas-award-in-molecular-biology/](http://www.nasonline.org/award/nas-award-in-molecular-biology/)

# Student Spotlight



Gregory Kyro

**Gregory Kyro**  
Yale University

## What do you hope to accomplish in your career?

I hope to enable a version of the future that is both non-inevitable and aligned with the *correct* moral order.

# BPS2026

BIOPHYSICAL SOCIETY 70TH ANNUAL MEETING  
FEBRUARY 21–25, 2026 | SAN FRANCISCO, CALIFORNIA

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## A Note from the Program Chairs

The BPS2026 Annual Meeting in San Francisco will showcase Biophysics by the Bay, highlighting the exciting advances in science and technology brought forth by big data and AI. This year's program offers a strikingly diverse and forward-looking slate of symposia that captures the dynamic, multi-scale nature of our field. From the controlled chaos of intrinsically disordered proteins to the emergent properties of life's assemblies, our sessions illuminate the physical organizing principles underlying biology. Symposia revisit new perspectives in classics like membrane transport and calcium signaling, while also spotlighting new frontiers such as the biophysics of immunity, cancer, and protein design. Workshops will explore emerging technologies for handling the giant datasets of modern biology and how to use AI to understand and engineer nature.

As in previous years, we seek to balance foundational insights and high-risk innovation, highlighting long-standing luminaries, emerging leaders, and exciting discoveries selected from abstract submissions. With our continued commitment to inclusive formats—Flash Talks, Symp/Workshop Select, and integrated poster-platform options—BPS2026 invites every attendee to shape and share in the discovery.

We look forward to building this next chapter of biophysics with you.



*Arianne Briegel*

Institut Curie,  
France



*Ilya Levental*

University of Virginia,  
USA

**View additional presentation options BEFORE submitting your abstract.**

**See page 13**

## Symposia

### Order from Chaos: The Biophysics of Intrinsically Disordered Proteins

*Tanja Mittag*, St. Jude Children's Research Hospital, USA, *Chair*  
*Magnus Kjærgaard*, Aarhus University, Denmark  
*Benjamin Schuler*, University of Zurich, Switzerland  
*Sigrid Milles*, Leibniz-FMP, Germany, *IUPAB Sponsored Speaker*

### Molecular Chaperones: Basic Mechanisms and Pathological Consequences

*Silvia Cavagnero*, University of Wisconsin–Madison, USA,  
*Chair*  
*Bernd Bukau*, Heidelberg University, Germany  
*Edward O'Brien*, Pennsylvania State University, USA  
*Karen Fleming*, Johns Hopkins University, USA

### The Biophysics of Active Matter

*Guy Genin*, Washington University in St. Louis, USA, *Chair*  
*Paul Janmey*, University of Pennsylvania, USA  
*Alison Patteson*, Syracuse University, USA  
*Pere Roca-Cusachs*, IBEC Barcelona, Spain

### Novel Protein Machines

*Cees Dekker*, Delft University of Technology, The Netherlands,  
*Chair*  
*Leonid Mirny*, MIT, USA  
*Stephan Gruber*, University of Lausanne, Switzerland  
*Eva-Maria Strauch*, Washington University in St. Louis, USA

## Abstract Submission and Registration Now Open

Remember, to submit an abstract or register for the Annual Meeting you must have a myBPS Account.

[biophysics.org/2026meeting](http://biophysics.org/2026meeting)

# Workshops

## Membrane Contacts and Lipid Transfer across and between Membranes

*Yongli Zhang*, Yale University, USA, *Chair*  
*Andre Nadler*, Max Planck Institute of Molecular Cell Biology and Genetics, Germany  
*Katsuomori Segawa*, Institute of Science Tokyo  
*Matthew Freeman*, Sir William Dunn School of Pathology, United Kingdom

## Sixty Years after the Alternating Access Model: Emerging Mechanisms of Membrane Transport

*Da-Neng Wang*, New York University, USA, *Chair*  
*Lucy Forrest*, NINDS, NIH, USA  
*Janice Robertson*, Washington University in St. Louis, USA  
*Simon Newstead*, Oxford University, United Kingdom

## Biophysics of Neural Signaling

*Stephanie Gantz*, University of Iowa, USA, *Chair*  
*Janesh Kumar*, Centre for Cellular & Molecular Biology – CSIR, India  
*Marta Filizola*, Mount Sinai Hospital, USA  
*Mohammad-Reza Ghovanloo*, Yale University, USA

## Evolution of Lipidomes and Membrane Phenotypes

*James Saenz*, Dresden University of Technology, Germany, *Chair*  
*Jochen Brocks*, Australian National University, Australia  
*Jacob Winnikoff*, Harvard University, USA  
*Maria Makarova*, University of Birmingham, United Kingdom

## Emergent Properties of Coupled Membranes and Condensates

*Benjamin Machta*, Yale University, USA, *Chair*  
*Dragomir Milovanovic*, German Center for Neurodegenerative Diseases (DZNE), Germany  
*Jonathon Nixon-Abell*, University of Cambridge, United Kingdom  
*Christine Keating*, Pennsylvania State University, USA

## Nonlamellar Lipid Phases in Biology

*Cecilia Leal*, University of Illinois Urbana-Champaign, USA, *Chair*  
*Christopher Lee*, University of California, San Diego, USA  
*Alexander Sodt*, NICHD, NIH, USA  
*Joachim Raedler*, Ludwig Maximilian University, Germany

## Catalysis Inside the Membrane Core

*Anirban Banerjee*, NICHD, NIH, USA, *Chair*  
*Stephen Blacklow*, Harvard University, USA  
*Amy Rosenzweig*, Northwestern University, USA  
*Raquel Lieberman*, Georgia Institute of Technology, USA

## Structural Evolution of Cellular Motility Machinery

*Edward Egelman*, University of Virginia, USA, *Chair*  
*Susan Lea*, NCI, NIH, USA  
*Makoto Miyata*, Osaka City University, Japan  
*Kent Hill*, University of California, Los Angeles, USA

## Cell Mechanosensing and Mechanotransduction

*Brenton Hoffman*, Duke University, USA, *Chair*  
*Adam Engler*, University of California, San Diego, USA  
*Jennifer Shin*, KAIST, South Korea  
*Rong Li*, Mechanobiology Institute, National University of Singapore, Singapore

## RNA Dynamics and Phase Transitions

*Peixuan Guo*, The Ohio State University, USA, *Chair*  
*Elisa Franco*, University of California, Los Angeles, USA  
*Sarah Woodson*, Johns Hopkins University, USA  
*Andreas Walther*, University of Mainz, Germany

## Genome Biophysics: Linking Structure, Function, and Disease

*Lu Gan*, University of Virginia, USA, *Chair*  
*Kelly Thayer*, Wesleyan University, USA  
*Sergei Grigoryev*, Pennsylvania State University, USA  
*Tamar Schlick*, New York University, USA

## The Ins-and-Outs of Mitochondrial Ions and Metabolites

*Ming-Feng Tsai*, University of Virginia, USA, *Chair*  
*Hongying Shen*, Yale University, USA  
*Fabiana Perocchi*, Technical University of Munich, Germany  
*Werner Kuehlbrandt*, Max Planck Institute of Biophysics, Germany

## Calcium Signaling: New Views on a Classic

*Martin Falcke*, Max Delbrück Center for Molecular Medicine, Germany, *Chair*  
*Ivo Siekmann*, Liverpool John Moores University, United Kingdom  
*Shyam Krishnakumar*, Yale University, USA  
*David Yule*, University of Rochester, USA

## Memory in Molecular and Cellular Systems

*Jennifer L. Ross*, Syracuse University, USA, *Chair*  
*Michael Rust*, University of Chicago, USA  
*Heidi Hehnly*, Syracuse University, USA  
*Michael Murrell*, Yale University, USA

## Biophysics of Immunity and Cancer Immunology

*Meghan Morrissey*, University of California, Santa Barbara, USA, *Chair*  
*Daniel Fletcher*, University of California, Berkeley, USA  
*Mohit Kumar Jolly*, Indian Institute of Science, India  
*Thierry Mora*, École Normale Supérieure, France

## Neural Mechanisms of Soft Tissue Manipulation and Mechanotherapy

*Valeria Vásquez*, The University of Texas Health Science Center at Houston, USA, *Chair*  
*Victoria Abraira*, Rutgers University, USA  
*Gregory Gerling*, University of Virginia, USA  
*Karl Lewis*, Cornell University, USA

## Genetic Code Expansion in Biophysics

*Sharona Gordon*, University of Washington, USA, *Chair*  
*William Zagotta*, University of Washington, USA  
*Ryan Mehl*, Oregon State University, USA  
*Alanna Schepartz*, University of California, Berkeley, USA

## Structural Biology in the Age of Artificial Intelligence

*Sumaiya Iqbal*, Broad Institute, USA, *Chair*  
*Jean-Christophe Gelly*, University of Paris, France  
*Ellen Zhong*, Princeton University, USA  
*Martin Steinegger*, Seoul National University, South Korea

## Organoid Biophysics

*Martin Oheim*, CNRS Paris, France, *Chair*  
*Laurence Pelleter*, Lunenfeld-Tanenbaum Research Institute, Canada  
*Latin Roper*, Duke University, USA  
*Eyal Karzbrun*, Weizmann Institute of Science, Israel

## The Dawn of Synthesis Research in Biophysics: Making Use of Petabytes of Biological Data

*Daniel Nissley*, Pennsylvania State University, USA, *Chair*  
*Elizabeth Brunk*, University of North Carolina at Chapel Hill, USA  
*Wout Bittemeijer*, University of Antwerp, Belgium  
*Margaret Cheung*, Pacific Northwest National Laboratory, USA

## Mechanistic Understanding of Cell Membranes: From Biomimetic to Biological Systems

*Raya Sorkin*, Tel Aviv University, Israel, *Chair*  
*Elizabeth Chen*, UT Southwestern Medical Center, USA  
*Luca Monticelli*, CNRS, France  
*Michael Kozlov*, Tel Aviv University, Israel

## Practical Aspects of Collecting and Processing Information for AI

*Helen Berman*, University of Southern California, USA, *Chair*  
*Brinda Vallat*, Rutgers University, USA  
*Nikos Hatzakis*, University of Copenhagen, Denmark  
*Mohammed AlQuraishi*, Columbia University, USA  
*Faruck Morcos*, University of Texas at Dallas, USA

# Abstract Categories

The Society organizes platform and poster sessions based on scientific areas. The abstract topic categories are reviewed annually and modified as needed to reflect new and evolving areas in biophysics. When submitting an abstract, you will be asked to select the category in which your abstract best fits. The abstract categories for the 2026 Annual Meeting are listed below.

## Proteins

- 1A Protein Structures
- 1B Protein Structure Prediction
- 1C Protein Design
- 1D Protein Stability, Folding, and Chaperones
- 1E Protein-Small Molecule Interaction
- 1F Protein Assemblies
- 1G Protein Dynamics and Allostery
- 1H Membrane Protein Structure
- 1I Membrane Protein Dynamics
- 1J Membrane Protein Folding
- 1K Enzyme Function, Cofactors, and Post-Translational Modifications

## Intrinsically Disordered Proteins, Aggregates, and Condensates

- 2A Intrinsically Disordered Proteins
- 2B Protein Aggregates
- 2C Condensates: Physical Properties and Modeling
- 2D Condensates in Physiology and Disease

## Nucleic Acids

- 3A Genome Maintenance
- 3B Gene Expression and Regulation
- 3C Structure and Dynamics of RNA and DNA
- 3D Protein-Nucleic Acid Interaction
- 3E Genome Organization and Dynamics

## Lipids and Membranes

- 4A Membrane Physical Chemistry
- 4B Membrane Reporters and Sensors
- 4C Membrane Active Peptides
- 4D Membrane Fusion and Non-Bilayer Structures
- 4E Membrane Structure
- 4F Protein-Lipid Interactions: Structure
- 4G General Protein-Lipid Interactions

## Cell Physiology and Bioenergetics

- 5A Membrane Receptors and Signal Transduction
- 5B Mechanosensation
- 5C Exocytosis and Endocytosis
- 5D Calcium Signaling
- 5E Intracellular Calcium Channels and Calcium Sparks and Waves

- 5F Excitation-Contraction Coupling
- 5G Cardiac, Smooth, and Skeletal Muscle
- 5H Electrophysiology
- 5I Muscle Regulation
- 5J Structure, Dynamics, and Function of Organelles
- 5J Bioenergetics and Photosynthesis
- 5K Mitochondria in Cell Life and Death

## Channels and Transporters

- 6A Voltage-Gated Na Channels
- 6B Voltage-Gated Ca Channels
- 6C Voltage-Gated K Channels
- 6D TRP Channels
- 6E Ligand-Gated Channels
- 6F Membrane Pumps, Transporters, and Exchangers
- 6G Ion Channel Regulatory Mechanisms
- 6H Ion Channels, Pharmacology, and Disease
- 6I Anion Channels
- 6J Mechanosensitive Ion Channels
- 6K Other Channels

## Cytoskeleton, Motility, and Motors

- 7A Skeletal Muscle Mechanics, Structure, and Regulation
- 7B Cardiac Muscle Mechanics and Structure
- 7C Cardiac Muscle Regulation
- 7D Smooth Muscle Mechanics, Structure, and Regulation
- 7E Actin Structure, Dynamics, and Associated Proteins
- 7F Microtubules, Structure, Dynamics, and Associated Proteins
- 7G Kinesins, Dyneins, and Other Microtubule-Based Motors
- 7H Myosins
- 7I Cytoskeletal Assemblies and Dynamics
- 7J Cell Mechanics, Mechanosensing, and Motility
- 7K Cytoskeletal-Based Intracellular Transport
- 7L Bacterial Mechanics, Cytoskeleton, and Motility

## Systems Biology

- 8A Systems and Whole-Cell Modeling
- 8B Systems-Level Imaging Approaches
- 8C Synthetic Biology and Networks
- 8D Novel Systems Techniques

## Neuroscience

- 9A Cellular and Molecular
- 9B Circuits and Systems
- 9C Experimental Approaches and Tools in Neuroscience

## New Developments in Biophysical Techniques

- 10A EPR and NMR: Spectroscopy and Imaging
- 10B Electron Microscopy
- 10C Diffraction and Scattering Techniques
- 10D Molecular Dynamics
- 10E Computational Methods and Machine Learning, Artificial Intelligence, and Bioinformatics

- 10F Single-Molecule Spectroscopy
- 10G Optical Spectroscopy: CD, UV-VIS, Vibrational Fluorescence
- 10H Force Spectroscopy and Scanning Probe Microscopy
- 10I Other Novel Technical Developments

### Bioengineering and Biomaterials

- 11A Bioengineering
- 11B Biosensors
- 11C Biosurfaces
- 11D Micro- and Nanotechnology
- 11E Biomaterials

### **NEW** Sustainability

- 12A Biophysics for Sustainability

### Biophysics Education

- 13A Biophysics Education

## Sustainability Category

The abstract category "Biophysics for Sustainability" will cover research showing how advances in biophysics and related disciplines contribute to achieving Sustainable Development Goals. This includes fundamental research and applied innovation and could cover, for example, work on photosynthetic efficiency and its optimization for sustainable agriculture, structure-based design of enzymes for plastic degradation, development of bio-inspired materials for renewable energy, metabolic engineering for green chemistry, or synthetic biology and microbiology for energy production, depollution, or carbon fixation.

## Techniques

To allow attendees to search for abstracts based on specific techniques in addition to areas of research, during abstract submission you will be asked to select the technique used in your research from among the list of broad topics. The technique categories for the 2026 Annual Meeting are listed here.

- Analytical Ultracentrifugation
- Artificial Intelligence Methods
- Atomic Force Spectroscopy
- Bioinformatics
- Calorimetry
- Cell/Tissue Imaging and Mechanics
- Computational Modeling – Cells and Systems
- Computational Modeling – Molecular and Macromolecular
- Computational/Theoretical Chemistry and Simulations
- Correlative Microscopies
- Electron Microscopy and Tomography
- Electrophysiology
- Fluorescence and Light Microscopy
- Magnetic Resonance (NMR, EPR, MRI)
- Mass Spectrometry
- Microfluidics and Microfabrication
- Nanotechnology
- Optical Spectroscopy (CD, UV/Vis, Fluorescence)
- Single Molecule Methods
- Superresolution Imaging
- Time-Resolved Spectroscopy
- Transient State Kinetics
- Vibrational Spectroscopy (Infrared and Raman)
- X-Ray and Neutron Scattering and Diffraction
- X-Ray Crystallography
- None/Other

## Additional Presentation Options

### "Symp Select" or "Workshop Select" Speaker

One additional speaker will be added to each symposium as a "Symp Select" speaker and to each workshop as a "Workshop Select" speaker.

If you are a principal investigator, you will have the option of choosing "Symp Select" or "Workshop Select" during abstract submission. "Symp Select" speakers will have 20 minutes for presentation and discussion. Program chairs will select one "Symp Select" speaker for each of the 20 symposia and one "Workshop Select" speaker for each of the 5 workshops.

### Platform Presenters Can Also Present a Poster

If selected for a platform talk, you will be able to indicate your preference to also present this work in a poster session. Should you choose to present a poster, please be advised that BPS cannot guarantee the order in which the platform talk and poster presentation will occur.

### Five-Minute Flash Talks

Each platform will have seven platform talks with three flash talks (five minutes each). These flash talks will be scheduled in the last speaking slot, and presenters will also present this work in a poster session.

# Upcoming BPS Webinar



## Postdoc to Faculty Q&A Session

**Tuesday, August 5, 2025, 12:00–1:30 PM**

Are you looking for practical advice on how to make the transition from a postdoc to a faculty position? Join this virtual session on August 5 for an interactive Q&A session with biophysicists at various stages of their careers who have gone through this transition. This session will prepare you for conducting job searches, interviewing, negotiating, moving, starting labs, teaching, and getting the publications, grants, and reputation you will need for success in academia. This webinar is free for members and only \$15 for non-members.

**Register today at <https://www.biophysics.org/webinars>**

## Looking For the Right Job Candidate?

The BPS Job Board serves as a premier platform for posting open positions in biophysics research and related fields. By leveraging our platform, you can find talented and passionate candidates to join your team.



**For a limited time, you can boost your employer branding with our Summer Special! For \$399 for members and \$499 for non-members, this will include:**

- FREE 30-Day banner ad on Job Search page
- 30-day job posting on career center
- Upgrades to have job remain high in search results and highlighted
- Job emailed to over 6,500 BPS members and job seekers

***Summer Special will be running from June 1 through August 31 and offers over \$500 in savings!***

**For more information or to post your job, go to: [biophysics-jobs.careerwebsite.com](https://biophysics-jobs.careerwebsite.com)**

## Job Hunting? Let BPS Help You

Looking for your next opportunity in biophysics? The BPS Career Center offers job listings, career advice, and resources tailored to every career stage. Visit today to explore openings, sharpen your skills, and take the next step in your career.

**<https://biophysics-jobs.careerwebsite.com/>**

# Cheers! for Volunteers

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

Yes, this is my first volunteer position for BPS after having had plenty of experience volunteering for other organizations, particularly in meeting organization, public advocacy, and mentoring.

**Why do you volunteer?**

I really enjoy the chance to give back to BPS, which has enriched both the research and professional development of many of my lab members and me over the years through the Annual Meetings, regional conferences, and *Biophysical Journal*. Professional societies each have their own “look and feel” in many regards, and BPS has one that has resonated to my group and me for some time, so I’m glad to help share what I can to contribute to this.

**What has been a highlight from your volunteer experience?**

It is particularly wonderful to meet and work with talented individuals from different professional settings, at different career stages, and having different perspectives on topics that we’re all interested in. I really find it genuinely invigorating to see how a group of people this diverse, but united in wanting



Kevin H. Gardner

**Kevin H. Gardner**

Committee for Professional Opportunities for Women

to meaningfully contribute to BPS, can come together to constructively share their wide-ranging expertise and experiences in this way.

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

Absolutely—try it! There’s a wide range of opportunities within a professional society of the scope of BPS, providing chances for people to find aspects that particularly excite them.

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

Work-wise, my research group uses biophysical and biochemical tools to explore how sensory proteins detect and react to changes in the world around us. That’s been a very rich area for us to explore methodology-wise—from high-end solution NMR to HDX-MS to computation—that has given some great insights into both natural signaling and ways to artificially regulate for therapeutic and biotech applications (as recognized by a wonderful award from BPS, the BPS Award for the Biophysics of Health and Disease, in 2023). When out of the lab, I am likely to be scuba diving, in the kitchen, or wherever one of my two wonderful daughters is to be found.

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For Industry Partner Membership information, contact [alevine@biophysics.org](mailto:alevine@biophysics.org).

# Call for Black in Biophysics Speakers

We are seeking nominations for speakers to be featured in the Black in Biophysics Symposium at the 2026 Annual Meeting in San Francisco, California. This symposium will highlight the work of Black biophysicists and aspires to build on the efforts of BPS to create a successful, inclusive environment while acknowledging the continued underrepresentation of Black scientists.

If you have a colleague who should be considered or would like to nominate yourself, visit [www.surveymonkey.com/r/Z25HM6B](http://www.surveymonkey.com/r/Z25HM6B)

**Deadline for submissions: August 22, 2025**



## BPS Family Care Grant

Don't miss out! Apply for up to \$500 to cover the cost of family care at the 2026 Annual Meeting. Applications accepted through Friday, November 7.

[www.biophysics.org/awards-funding/family-care-grant](http://www.biophysics.org/awards-funding/family-care-grant)

## Welcome New Committee Members!

The Biophysical Society is excited to extend a warm welcome to the latest additions to the BPS Committees. These remarkable individuals are graciously volunteering their time and expertise to make a difference in our community. BPS strives for a rich variety of perspectives and knowledge, and thanks to staggered terms, the Committees are in a constant state of evolution. We eagerly anticipate the opportunity to collaborate and achieve great things together!

### Awards Committee

*Janice Robertson*

### Committee on Inclusion & Diversity (CID)

*Chloe Meyer  
Stephanka Nedvedova  
Steven Quinn  
Sujay Ray  
Mae Weaver*

### Committee on Professional Opportunities for Women (CPOW)

*Adeyemi Odudimu  
Surabhi Sreenivas  
Da-Neng Wang*

### Committee on Sustainability

*Munish Chhabra  
Audra Kramer  
Tugba Ozturk*

### Dissertation Award Review Committee

*Hugo Lacheur  
Nadab Wubshet*

### Early Careers Committee

*Aditi Borkar*

### Fellows Committee

*Walter Chazin  
Catherine Royer*

### Membership Committee

*Monika Wieliniec  
Elizabeth Yates*

### Public Affairs Committee

*Dorit Hanein  
David K. Jones  
Scott Showalter*

### Publications Committee

*Carmen Domene  
Diwakar Shukla  
Harpreet Singh*

### Thematic Meetings Committee

*Michelle Knowles  
Sarah Rouse  
Christopher Yip*

# A Novel Approach to Writing NIH-Style Research and Training Applications

BPS recently held a webinar hosted by [Rick McGee](#) designed to offer actionable insights and strategies for researchers related to the growing challenges of securing grant funding. Even though uncertainty can make focusing on proposal writing difficult, honing these skills is crucial for success in a constantly shifting funding landscape, and we've included a few of the key points below.

McGee's approach draws on more than two decades of experience teaching grant writing, starting with his early work at the Mayo Clinic and continuing in his current position at Northwestern University. He believes that researchers should view grant writing as a communication exercise, one which relies heavily on understanding what reviewers are looking for. High-quality writing will not cover up weak or inadequately developed science, but reviewers cannot properly understand your science unless it is communicated effectively. With that in mind, McGee provided a number of key details to be aware of for all grant applications, along with a few tips and tools that researchers can utilize.

Fundamentally, proposals should clearly demonstrate that your research is valuable and feasible and represents a logical next step in the field. It is essential to show a deep understanding of both the broader topic and the specific niche. In his experience, one of the best ways to ensure that this comes across in your writing is to integrate the writing process with your research at every step, which can also improve the quality of your research itself. For example, being able to formally articulate your research questions and hypothesis can provide you with a much more definitive direction once you begin. McGee also emphasized the value of seeking verbal feedback throughout proposal development. In his experience, a quick conversation with a colleague can be far more efficient and effective than written feedback in catching gaps and improving clarity.

For those interested in learning more, the full webinar recording and presentation slides are available in the BPS [Video Library](#) ([www.biophysics.org/video-library](http://www.biophysics.org/video-library)).

**Biophysical Society**

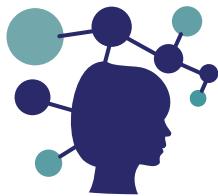
# BiophysicsWeek

March 23–27, 2026

**Mark Your Calendar!** Biophysics Week 2026 is happening March 23–27. Get ready for a week filled with exciting science highlights, global connections, and dynamic educational and career building events. Celebrate the interdisciplinary world of biophysics with hands-on activities, expert insights, and opportunities to engage with the biophysics community around the world.

[www.biophysics.org/biophysicsweek](http://www.biophysics.org/biophysicsweek)

# Creating a Postdoc Application – What You Need to Know



**Molly Cule  
Advice**

You are at the last stages of your PhD and you have decided to continue with research by pursuing a postdoc. This seemingly simple decision comes with myriad complications before landing a suitable postdoc position, particularly in today's uncertain atmosphere. The most crucial aspect in this is preparing your application for postdoc positions.

Here, I am assuming that the background work for finding the suitable labs for you has already been done. This is not a trivial decision and should be done with utmost care. Considerations such as future prospects, work-life balance, research independence, opportunities to network, location and visa issues, financial compensation, productivity, and atmosphere of the potential lab are just some of the crucial ones that should be on your mind before finalizing your decision. In the current unstable environment and outlook toward research in various countries around the world, it might be worth thinking about the non-scientific implications of relocating to specific countries.

Having said this, it is also important to keep enough options open for yourself. As with any application, numbers matter, and you may not want to limit your options too much. This calls for a thorough search. A regularly updated list of postdoc opportunities, particularly in the domain of life sciences, is maintained by the Office of the Vice Provost for Research at Johns Hopkins University (<https://research.jhu.edu/rdt/funding-opportunities/postdoctoral/>). Attending meetings in your research area such as Biophysical Society Annual Meetings (and perhaps ones in slightly tangential areas) provides you with the opportunity to find potential labs in which you might be a good fit. Once you have identified the potential labs, then starts the application process.

## Don't Shy Away from Writing

As academics, we get trained to communicate succinctly, with data and often only when required, so "cold" emailing might not come naturally to you. However, enough evidence suggests that a well-drafted email is an excellent way for improving your chances of landing a position. So, don't shy away from writing the potential lab principal investigators (PIs) inquiring about open positions. There are several guides to writing cold emails from professionals that can be found on the internet, so I will not get into those specifics here.

## Start Early

No matter how good you are at putting together your thoughts and writing, any application requires time, especially

when you are simultaneously doing research in the lab or writing your thesis or perhaps preparing for its defense. More importantly, if it is your first application, then it's going to take much longer. So, typically you should have the first draft of an application ready three to four weeks before the deadline. If several positions are open with no specific deadline, it is important to have your own deadline to finish and submit the application.

## Attention to Detail

Different applications require slightly different inputs from you. For example, for some applications you might need to submit a research proposal, while others might focus more on motivation and skills. It is pertinent to identify all the elements needed to complete the application package for each position and to address all of them. This also conveys sincerity, a quality often sought after by potential PIs.

## Get Feedback on Applications before Submitting

It is crucial to get feedback on your application package from a colleague in your field or your current PI. This is not only to get feedback on your writing but also on some practical aspects such as feasibility of the project proposal, logical flow of the ideas, and correct portrayal of your skills and expertise. Importantly, ensure that you share the application well ahead of time with anyone whose feedback you seek.

## A Fresh Look Always Helps

It is also a good idea to get your application looked at by an individual slightly out of your domain of expertise. Friends and well-wishers are always good at pointing out obvious mistakes in the application material that your eyes may have missed.

## Use Generative AI Judiciously

With an increasing number of people taking help from AI tools for writing, an experienced reviewer of the application can easily differentiate between an AI-written application and one written by you. So, it might be a good idea to get some hints, check language, and refine your write-up using AI tools, but the flow of ideas and the core content must be your own.

## Be Positive and Keep Your Mind Open

Applying for postdoc positions can be quite taxing, but consider this as an investment that will give great returns once you end up in a good lab where you can contribute and you are valued. So, irrespective of the outcomes, you need to be positive and continue with applications without compromising on the rigor with which you approach each application.

—Molly Cule

## Spatial Organization of Biological Functions

Bangalore, India | October 20–25, 2025



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 scientists 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.

**Early Registration Deadline:**  
July 21, 2025

**Late Abstract Submission  
Deadline:**  
August 4, 2025

## 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  
*Apratim Chatterji*, IISER Pune, India  
*Maria García-Parajo*, ICFO, Spain  
*Zemer Gitai*, Princeton University, USA  
*Monica Guo*, University of Washington, USA  
*Linda Kenney*, University of Texas Medical Branch at Galveston, USA  
*Kinneret Keren*, Technion International, Israel  
*Vicky Lioy*, Institute for Integrative Biology of the Cell, France  
*Tam Mignot*, CNRS-Aix Marseille University, France  
*Nitin Mohan*, Indian Institute of Technology Kanpur, India  
*Maithreyi Narasimha*, Tata Institute of Fundamental Research, India  
*Masatoshi Nishikawa*, Hosei University, Japan  
*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



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# BPS Bulletin

THE NEWSLETTER OF THE BIOPHYSICAL SOCIETY

July/August 2025



## RENEW YOUR MEMBERSHIP

### 2026 Membership Is Now Available!

Join us for another year of endless opportunities, where you can expand your professional network, enhance your skills, and stay at the forefront of your field.

Don't miss out on what promises to be an exciting and impactful year ahead!

[www.biophysics.org/RENEW](http://www.biophysics.org/RENEW)

## BPS Important Dates

**Call for Thematic Meetings Deadline**  
July 15, 2025

**Last Day to Vote in BPS Elections**  
August 1, 2025

**Greece Peripheral Membrane Protein Interactions Early Abstract Deadline**  
August 18, 2025

**Call for Black in Biophysics Speakers Deadline**  
August 22, 2025

**Greece Peripheral Membrane Protein Interactions Early Registration Deadline**  
September 5, 2025

**BPS2026 Satellite Meeting Proposal Deadline**  
September 19, 2025

Please visit [www.biophysics.org](http://www.biophysics.org) for a complete list of upcoming BPS Important Dates.