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International Union for Pure and Applied Biophysics



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BioPhys Mex 2025, Lerma, Mexico

Biophysics in Mexico represents a dynamic and expanding field, as demonstrated by the BioPhys Mexico 2025 conference, May 7–9 in Lerma, Mexico. The event hosted over 100 graduate and undergraduate students from universities in Mexico and Colombia. Experimental studies included single-molecule spectroscopy of membrane domains, analysis of particle

diffusion, investigation of dynamics in biofilms, characterization of macromolecules and cells in blood vessels, observation of excitability patterns in neurons via multiphoton microscopy, exploration of spermatozoa using electrophysiology and microscopy, and terahertz investigations to elucidate water dynamics and protein conformational changes. Computational contributions featured work on drug discovery, enzymatic catalysis employing QMMM methods, and MD simulations of protein–DNA interactions. Theoretical analyses included single-cell RNA-seq data interpretation to characterize gene expression. Participants were also introduced to the innovative and rapidly developing field of engineering living materials, involving designing adaptable, self-repairing materials and programming living cells to produce substances with tailored properties and functions. A highlight of the conference was the poster session, which fostered dialogue and collaboration between researchers and students in a friendly and constructive environment. The BioPhys Mexico 2025 conference was a highly successful meeting that will help consolidate a Mexican Biophysical Society.

Organizing committee: Braulio Gutiérrez Medina, Carlos Muñoz Garay, Eduardo Jardón-Valadez, and Luis Olivares Quiroz



IUPAB-Focused Meeting on P-Type ATPases in Health and Disease, Cairns, Australia

From September 15-19 a IUPAB-Focused Meeting on P-Type ATPases, was held in Cairns, Australia. The meeting was simultaneously the 17th International Meeting on P-Type ATPases. Over 80 scientists from 13 countries. The meeting featured 54 lectures and 29 poster presentations. A highlight was a keynote lecture by Kathleen Sweadner of the Massachusetts General Hospital "The Synergy of Clinical and Molecular Science for Genetic Disorders in ATP1A3", which was immediately followed by an inspiring talk by Joy Namdarian, who shared the experience of living with a child with ATP1A3 disease and the impact it has on the entire family. Apart from the benefit of the scientific exchanges the meeting enabled, the incorporation

of families of patients provided the stimulus for establishing a support network for patients' families within Australia.

Another highlight was the lecture by Adele Lehane (Australian National University, Canberra) who discussed the potential of the *Plasmodium* ion pump PfATP4 as a target for the treatment of malaria. Apart from pumping ions, P-Type ATPases can transport other substrates, including lipids. On this topic there was a very interesting as well as entertaining lecture by Jun Suzuki (Kyoto University, Japan).

The revolutionary advances in cryo-electron-microscopy in recent times have provided a wealth of new information on the structures of P-type ATPases and the conformational changes they undergo. On this topic there were valuable updates on the current state of knowledge by Poul Nissen (University of Aarhus, Denmark) and Chikashi Toyoshima (University of Tokyo).

With free time in the programme to visit the adjacent rainforest and the Great Barrier Reef, as well as a dedicated poster session and communal lunches, the 5 days were filled with opportunities to learn and network with one another. The success of the meeting and the healthy state of the research field was also evident in the fact that proposals were presented at the conference dinner on the final evening to hold the next two meetings first in Leuven, Belgium, then in Brazil.

IUPAB Councillor Matthew Baker wins the 2025 McAulay-Hope Prize for Original Biophysics from the Australian Society for Biophysics (ASB)

A/Prof. Matthew Baker, University of New South Wales, Sydney, Australia, won the prize for investigations of how bacteria "swim". Matt will be formally presented with his prize at the ASB Annual Conference on the Gold Coast in November.



IUPAB/Asian Biophysics Association (ABA) Satellite in Kuala Lumpur, Malaysia

The IUPAB/ABA Biophysics Satellite Meeting to the International Union of Pure and Applied Chemistry (IUPAC) Congress was held on the 19th-20th of July. A highlight was the theme "Novel Tools in Biophysics", where speakers introduced cutting-edge techniques. From high-resolution imaging to real-time molecular tracking, the talks sparked exciting possibilities for innovation and interdisciplinary collaboration.

This was followed by a poster presentation session, showcasing a diverse range of research from emerging scientists and students across the region. The energy in the poster seminar

room was electric. The evening wrapped up with a delightful dinner at Berjaya Times Square Hotel, where conversations flowed just as freely as the laughter and of course good food! A big shout-out to the organizing teams of IUPAB, ABA, and Universiti Sains Malaysia (USM) and to all participants for making the meeting a success.

Call for Nominations for the 2026 Michèle Auger Award

Michèle Auger, a long-time Editorial Board member of IUPAB's journal *Biophysical Reviews* and former IUPAB Council Member, succumbed to illness at much too young an age on October 29, 2018. She led a research program in protein biophysics and solid-state NMR and served as an outstanding mentor and academic leader at Université Laval in Quebec City, Canada. As a sign of the journal's esteem for Michèle, the journal, together with the support of Springer-Nature, established "The



Michéle Auger Award for Young Scientists' Independent Research," which seeks to espouse some of the ideals held by Michèle in providing opportunities and recognition for junior scientists. The Award consists of a plaque, a free personal subscription to *Biophysical Reviews*, and an invitation to submit a single-author, open-access review article to the journal. The Award is now in its 7th year.

Application for the 2026 award entails a letter of nomination (either self-nomination or by a colleague), submission of a 1-page CV and 5 research papers of the nominee's best work. Nominees must be under 40 years of age at the 31st of October, 2025. Nominations and document submission can be made to any *Biophysical Reviews* senior editor via email, with all documents as pdf files. **The nomination deadline is the 31st of October, 2025**.

Biophysical Reviews also welcomes suggestions for special issues, to join those recently published highlighting biophysics research in Britain and Eire (2025; vol 17:4), and Latin America (2025; vol 17:2).

Latin American Federation of Biophysical Societies (LAFeBS) Webinar

The Latin American Federation of Biophysical Societies (LAFeBS), a IUPAB member since 2007, is continuously expanding by reaching out to new Biophysics Groups throughout the Region. Its goal is to strengthen Biophysics and foster collaborative interconnections between scientists from Latin American and Caribbean Countries with an established tradition in this discipline, as well as to seed and spread Biophysics by bringing together isolated groups in countries where Biophysics is still an emerging field. At present, the Federation is formed by Biophysical Societies, Sectionals, Research Groups and Laboratories from Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Mexico, Portugal, Spain, Uruguay and Venezuela.

On September 10, 2025, Springer Nature organized (via Joshua Bayliss) a webinar dedicated to raising the visibility of Biophysical Reviews Special Issue (ISSUE 2, 2025): LAFeBS, alive, kicking, and growing: the story continues... as part of their Biophysics Seminars initiative (Springer Nature Physics Community, link to the webinar: https://cassyni.com/events/UVut4UyuPK2fNyagekJRuX). The webinar featured presentations by authors from this collection, which contains 34 full review articles. Editors Silvia Alonso, Leandro Barbosa, Luis González-Flecha, Rosangela Itri, and Daniel Peluffo coordinated the special issue, under the guidance of Editor-in-Chief Wilma Olson. The collection spans topics from molecular, membrane, computational, theoretical and cell biophysics to biomedicine, using methods to study the structure, function, properties, and the dynamics of biomolecules at atomic, molecular, or macromolecular levels. Distinguished colleagues attended the webinar, including IUPAB's past and current President, Profs. Manuel Prieto and Anthony Watts, respectively.



XVIII International Congress of the Spanish Biophysical Society

The XVIII International Congress of the Spanish Biophysical Society took place from June 24th-27th at the Faculty of Chemistry of the Complutense University at Madrid. There were 244 participants, 6 keynote speakers, 20 20-min talks, 49 10-min talks, and 15 3-min-flash presentations. 135 participants contributed posters. The temperature was rather horrid (35-38°C) but we still endured quite well the climate and the meeting passed with great camaraderie and a high level of scientific exchange. The meeting was financially supported by subscription fees and generous contributions of sponsors, including IUPAB.

The congress was opened by Prof. Federico Morán Abad, SBE member, and Director of the Foundation for Knowledge Madri+d, Lucía de Juan Ferré, Vice Rector of Research and Transfer of the Complutense University, Mayte Villalba Díaz, Dean of the Faculty of Chemical Sciences of the UCM, and José María Valpuesta, president of the SBE (https://tribuna.ucm.es/news/quimicas-ucm-xviii-congreso-internacional-sociedad-espanola-biofisica).

Biophysical Society Bridging Funds

Give if you can. Apply if you need to. We're in this together.

At the Biophysical Society (BPS) we know how vital it is to stay connected to the community—especially during moments of financial uncertainty. The Bridging Funds Program, first introduced for the 2016 Annual Meeting, was created to help members navigate gaps in funding. With significant reductions in science funding, the need for this program has never been greater. To meet that need, BPS Council is expanding this program for the 2026 Annual Meeting.

Through this expansion, at least 50 members will each receive US\$500 to support participation in the meeting, where they can share their work and stay engaged with peers—whether they're between positions, managing reduced funding, or facing unexpected challenges.

You can make an immediate impact.

Every donation to the Bridging Funds Program between now and November 7 will be matched by BPS—up to \$25,000. That means your support will go twice as far in keeping colleagues active in our field.

Donate Today

Social Media

IUPAB is now on social media platforms! These include Twitter (@IUPAB1), Instagram (IUPAB1) and Facebook (IUPAB2). Please head over to any of these pages to keep up to date on all IUPAB activities. A IUPAB WiKi page has also been created – details here.

Future IUPAB Events

2027 IUPAB Congress (September 5 – 9) Berlin, Germany

Links will be posted on the <u>IUPAB.ORG</u> website when they are available.

2030 IUPAB Congress (June 17 – 21) Quebec City, Canada



International Science Council (ISC) Events and Opportunities

News

Launch of the Asia-Pacific Academic Mentoring Program: https://council.science/news/australia-and-new-zealand-academics-sow-seeds-of-success-with-pacific-islands-scholars/
Establishment of Biological Weapons Convention expert group:

https://council.science/news/announcing-isc-expert-group-biological-weapons-convention/

Past Events

Muscat Global Knowledge Dialogue and Third ISC General Assembly - Muscat, Oman 26-30 January 2025- https://council.science/events/isc-ga-2025/
Nigerian Academy of Science (NAS) – 6th scientific conference
https://council.science/events/nas-6th-scientific-conference-nigeria/

Webinar The Art of Drug Design - July 16,

2025: https://url.au.m.mimecastprotect.com/s/HH0VCwV1vMfynPp3GSVfriJc9IJ? domain=council.science

Publications

Strengthening the Biological Weapons Convention through science: https://url.au.m.mimecastprotect.com/s/AKkPCyojxQTL3Jn5riQiOixFvX0domain=council.science

Trust in science for policy

nexus: https://url.au.m.mimecastprotect.com/s/2KNDCzvkyVC4znLoMTKsDi94RWP? domain=council.science

Futures thinking and strategic foresight in action: Insights from the Global South: https://url.au.m.mimecastprotect.com/s/mecNCANpgjCE5VYANiQtviGzM0S?

domain=council.science



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