

International Union for Pure and Applied Biophysics

April 2022

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IUPAB support of researchers in Ukraine and Russia

IUPAB expresses its deep concern regarding the large-scale Russian invasion of Ukraine, which has already led to devastating loss and disruption of many lives. IUPAB supports every possible measure that can be taken to avoid any escalation of the war, with its disastrous humanitarian effects, and to bring the war to a close.

As a member of the International Science Council (ISC), IUPAB councillors and executive committee endorses the recent ISC statement:

The ISC expresses its deep dismay and concerns regarding the military offensives being carried out in Ukraine. This conflict has already generated a grave humanitarian crisis. Science has proven to act as a platform for dialogue even in times of war, and therefore is a resource on which to capitalize to avoid further loss of life and disruption including that to scientific research and infrastructures. The ISC counts members in all countries involved in this conflict.

At a time when the demand and the potential for science to provide actionable knowledge to our global challenges on multiple fronts – climate change, the COVID-19 pandemic, and growing inequalities – are greater than ever, the current conflict in Ukraine and its consequences will hamper the power of science to solve problems when we should be harnessing it.

The ISC also warns against the severe outcomes that conflict will have on the research and academic community. Our capacity to work collaboratively on global challenges, and on cutting edge research such as Arctic and space research, is only equal to our capacity to maintain strong collaboration amidst geopolitical turmoil. Ultimately the isolation and exclusion of important scientific communities is detrimental to all.

The ISC and its partners are committed to assisting the global scientific community in welcoming and protecting scientists who have been placed at-risk or become displaced by this

conflict, by providing them opportunities to continue their work.

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The ISC is committed to continue advancing the equal participation and collaboration between scientists in all countries in its activities and the principle of the free and responsible practice of science which is enshrined in its statutes.



New policy for supporting IUPAB activities

In March 2022 a new policy was proposed for supporting IUPAB activities. This policy incorporates the following key features.

Financial support is available - in principle - for:

- A regional workshop or school devoted primarily to foster education and research opportunities for early career biophysicists, especially in those areas of the world where biophysics is developing as a discipline and where demonstrated needs exist.

- A regional meeting aimed at bringing together biophysicists from a number of different countries in a particular area of the world, such as continents or other geographic groupings, i.e., Pan Asia, Pan India, Europe etc.)

During years of the IUPAB triennial Congress, IUPAB funds will be mainly devoted to this Congress.

Financial support is not available for:

- A solely national meeting of any of the national biophysics societies or groups.

- A meeting that is part of an on-going series devoted to a specific topic. Exception may be made to support the participation of early career scientists from developing nations.

- Any meeting in an IUPAB triennial Congress year, unless officially designated and approved as a Congress Satellite. Meetings that are supported by IUPAB financially or otherwise will be listed in the IUPAB calendar of events; this is published in IUPAB News, which is distributed to all adhering bodies of IUPAB, and included on the IUPAB website and Facebook page (IUPAB2).

Enquiries about IUPAB meetings and applications should be addressed to the IUPAB Secretary General. A funding application form and the detailed policy document are available on the IUPAB website (www.iupab.org).

New Secretary-General

As announced in the January 2022 newsletter, Prof. Juan Carmelo Gómez-Fernández has unfortunately had to step down as Secretary-General of IUPAB due to health conditions. In March 2022, Associate Professor Ron Clarke of the University of Sydney was co-opted for 3 years to serve on the Executive Committee of IUPAB as the new Secretary-General. Below is a statement and brief introduction:

In January Tony Watts approached me to ask if I would be willing to take on the Secretary-General's duties in Juan Carmelo's place. I know that Juan Carmelo has served IUPAB with distinction for many years, first as a councillor and then as the Secretary-General. I am happy to take on this role; I just hope I can live up to the precedent set by Juan Carmelo.

I'm Australian (born in Adelaide, South Australia) and have been a member of the Australian Society for Biophysics (ASB) since 1999. From 2013-2019 I was the treasurer of ASB and I was involved in the organisation of the 2014 IUPAB Conference in Brisbane, Australia.

Before taking up my current position at the University of Sydney, I was living and working in Europe from 1987-1999, predominantly in Germany (Constance, Berlin and Frankfurt am Main), except for one year (1989) in the UK at the University of East Anglia in Norwich. In Germany I worked at the University of Constance (1987-88), the Fritz-Haber-Institute of the Max-Planck-Society in Berlin (1990-95) and the Max-Planck-Institute of Biophysics in Frankfurt am Main (1995-1999).

My research is in the area of membrane biophysics, and in particular the kinetics, mechanism and regulation of P-type ATPases (Na⁺,K⁺-ATPase and the H⁺,K⁺-ATPase), the membrane dipole potential, and lipid-protein interactions. My introduction to this field came in 1987, when I moved from Adelaide to Constance as an Alexander-von-Humboldt Fellow to work with Prof. Dr. Peter Läuger in the Department of Biophysics, University of Constance. I still consider Peter Läuger as the major inspiration for my career and my most important mentor. It was a tragedy for the field of biophysics that he died still so young in a mountain-climbing accident in the Andes in 1990.

Even before I joined ASB in 1999, I was already a member of the Biophysical Society and the German Biophysical Society, and still am. During my career I have also spent time much time teaching lecture courses in physical chemistry and biophysics, of course mainly in Sydney, but also in Germany (Berlin), Vietnam (Hanoi) and in Israel (Beer-Sheva). I hope that my international experience and contacts will be of benefit in my new role as Secretary-General, and I hope, now that Australia has finally re-opened its borders after its long COVID isolation, it won't be too long before I can meet many of you.

Ron Clarke, IUPAB Secretary-General



Associate Professor Ron Clarke, School of Chemistry, University of Sydney, becomes the new Secretary-General of IUPAB.

IUPAB-Biophysical Society Meeting, San Francisco 2022

During the 66th Annual Meeting of the Biophysical Society (BPS) held in San Francisco (19-23 Feb. 2022), IUPAB and BPS held a meeting with the participation of the following representatives:

IUPAB: Manuel Prieto (President), Christina Sizun (Treasurer)

BPS: Frances Separovic (Past-President), Jennifer Pesanelli (Exec. Officer), Gail Robertson (President), Taekjip Ha (President-Elect), Erin Sheets (Secretary), as of April 2023.

The already on-running collaboration between the two organizations was analyzed, and this will be continued in the framework of reciprocal funding of several initiatives, such as main lectures at the IUPAB and BPS meetings, as well as student travel grants, and poster prizes.

For purpose, the this two organizations will advance to the other a list of speakers, and the selection will consider ลร preference scientists working outside the US and preferentially from developing regions, for the BPS meetings.

Also, there will be advertising by IUPAB of BPS initiatives such as "Biophysics Week" and "Thematic Meetings", and this will be reciprocated by BPS regarding the IUPAB "Focused Meetings". Cooperation on other initiatives like the "Women in Science/in Biophysics" are also envisaged.

Since IUPAB holds some of its Executive Committee meetings at the Annual Meeting of BPS, this will allow to consider future initiatives on the regular meetings between the two organizations.

Manuel Prieto, IUPAB President Christina Sizun, IUPAB Treasurer The International Science Council (ISC) is a non-governmental organization based in Paris with a unique global membership of 40 international scientific Unions and Associations (including IUPAB) and over 140 national and regional scientific organizations. It is the international only nongovernmental organization combining the natural and social sciences and the largest global science organization of its type.

ISC has an international and diverse Governing Board of 18 members and a declared mission to:

- Act as the global voice for science;
- Speak for the value of all scienceand evidence-informed decisionmaking;
- Stimulate and support international scientific research and scholarship on major issues of global concern;
- Articulate scientific knowledge on such issues in the public domain;
- Promote the continued and equal advancement of scientific rigour, creativity and relevance in all parts of the world; and,
- Defend the free and responsible practice of science.

In the northern hemisphere summer of 2021, Dr Gabriella Viero (Institute of Biophysics, National Research Council (CNR), Trento), Italy's recently elected IUPAB councillor, was asked by the Executive Committee if she would kindly be IUPAB's new representative on the ISC. Gabriella graciously accepted.

In her research Gabriella aims to reconcile biophysics with omics to obtain breakthrough discoveries in basic science. She obtained her Master's Degree in Cellular and Molecular Biotechnology at the University of Padua. During this period, she had a life-changing meeting with Dr. Gianfranco Menestrina, a renowned biophysicist with the ability to portray the complex properties of biological systems with elegant mathematics.

Gabriella was awarded her PhD from the University of Verona and the Institute of Biophysics (CNR) studying the mechanisms of transmembrane pore formation in planar lipid membranes induced by toxins by electrophysiology and atomic force microscopy. After winning one of two prizes for best PhD thesis in biophysics from the Italian Biophysical Society, she became convinced that breakthrough discoveries require longterm visions and strong intellectual cross-examinations across multiple disciplines. So, in 2008, she completely changed her research field and spent 4 years as a postdoctoral fellow at the Centre for Integrative Biology (University of Trento, Italy). There she was introduced to translational control of gene expression, genomics, and molecular biology. In 2011 she was awarded a permanent position as principal investigator at the Institute of Biophysics-CNR (Italy), where she has built up a broad team comprising students and postdoctoral fellows with various backgrounds, but with a shared passion for proposing new conceptual frameworks to bridging biophysics and multi-omics.

Gabriella's concept of moving out of comfort zones, naturally lead her to expand her interests towards connections between science with other fields. Over the years she explored the connection between science and art, science and philosophy (bioethics), and more recently diplomacy. She attended various courses on Science and Diplomacy and, as stated in her recent cameo in Biophysical Reviews (Viero G., Biophys Rev. 13 (2021) 845-847), this is why she is proud to be a member of the IUPAB council and to represent IUPAB on the ISC. Here she can experience first-hand a unique environment of world-wide inclusive approaches, crossing borders in the name of science.



Dr Gabriella Viero, Institute of Biophysics, National Research Council (CNR), Trento, Italy, became the IUPAB representative on the International Science Council.

Relevant news and documents from ISC:

Importance of Science as a Global Public Good https://council.science/current/news/science-as-aglobal-public-good/

The Use of Preprints and Associated Preprints <u>https://council.science/publications/normalization-preprints/</u>

International Data Week 2022 https://www.idw2022.org/

International Year of Basic Sciences for Sustainable Development

https://www.iybssd2022.org/en/home/

If you would like direct news from the ISC, you can join the mailing list: <u>https://council.science/newsletter/</u>

IUPAB Supported Events – 2022/23

Travel bursaries are being offered for attendance at the EMBO Practical Course on "Small angel neutron scattering", 20-24th June (details <u>here</u>) and the FEBS/EMBO Advanced course on "Lipids and membranes", May 29th – June 4th (details <u>here</u>), specifically for participants who are both ineligible for EMBO/FEBS travel bursaries and from less developed countries.

The next IUPAB Focussed Meeting is "The biophysics of neurotransmitter-gated ion channels: from structure to drug discovery", and will take place in Ottawa (Canada), May $23 - 27^{th}$ 2022. The main organizer is John Baenziger, IUPAB Councillor (Canada). IUPAB also has supported a plenary lecture, prizes and travel bursaries Details <u>here</u>.

Applications for support can be made at <u>IUPAB.ORG</u> and sent to the Treasurer: <u>christina.sizun@cnrs.fr</u>

IUPAB Task Forces

• Education and Capacity Building Task Force

An Education and Capacity Building event ("Physics meets Life" - <u>details</u>) will take place on April 26th, 27th and 28th. The on-line event is organized together with <u>IAPS</u> (Intl. Association of Physics Students) and is specifically targeted at physics and chemistry under- and post-graduates to consider biophysics an area of study and research – other science students are also welcome. Speakers include <u>Sarah Köster</u> (Uni. Göttingen) and <u>Helmut Grubmüller</u> (MPI, Germany), with short contributions from young biophysicists. FREE registration details are <u>here</u>, and the event will be recorded for later access and posted on the <u>IUPAB.ORG</u> web site.

• Big Data Task Force

During the CODATA (Committee of Data of the International Science Council)-organized "International Data Week", 20 – 23th June 2022, an event entitled SciConData 2022 will be focussed on "*Data to Improve our World: The role of data to address global challenges*" (details). To coincide with this major on-line congress, the IUPAB **Big Data Task Force** is organizing a webinar entitled **Deep Learning: What Big Data in Biophysics can teach us all?** It will be chaired by Kandala V. R. Chary (Councillor, India) and is co-organized with Gabriella Viero (Councillor, Italy). Speakers include: Kandala V. R. Chary, Odisha, India; Katherine Hone, Diplomacy; Francesco Marelli, UNICRI, USA; Stefan Knauer, Bayreuth, Germany; Sameer Velankarm EBI, UK; Antio Rosatao, Florence, Italy. A link will be posted on the <u>IUPAB.ORG</u> web site shortly. To register your interest please e-mail Gabriella Viero at <u>gabriella.viero@ibf.cnr.it</u> and include "Big Data" in the subject header.

• Structural Biology Task Force

Through the Structural Biology Task Force, IUPAB is awarding poster prizes at the 60th Annual Biophysical Society of Japan (BSJ) meeting, 28 – 30 September 2022, Hakodate (<u>details here</u>).

Future IUPAB Congresses

2024 (June 24-28th) Kyoto, Japan, Chair: Hiroyuki Noji, Tokyo 2027 (October 10 – 14th) Berlin, Germany Links will be posted on the <u>IUPAB.ORG</u> website when they are available.

Follow IUPAB at the new Facebook page

