



IUBMB NEWSLETTER

Issue No. 11 • May 2021

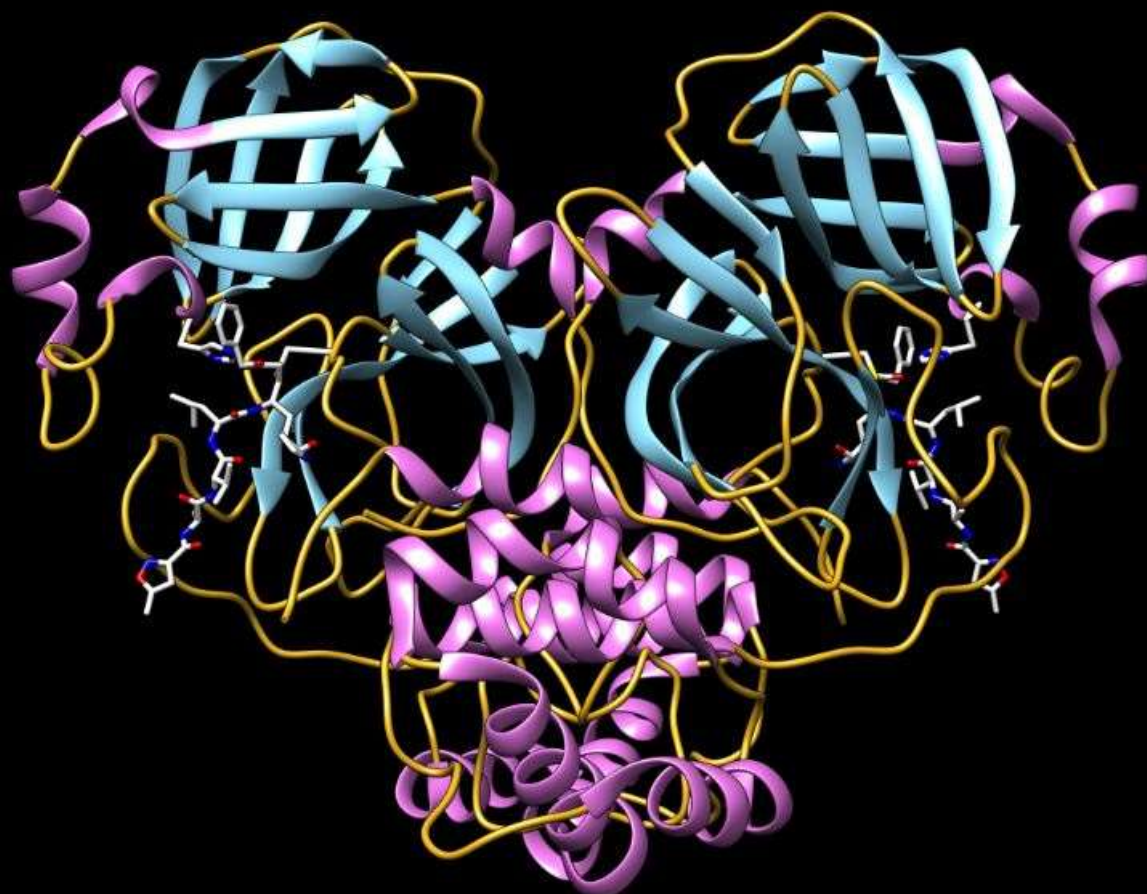
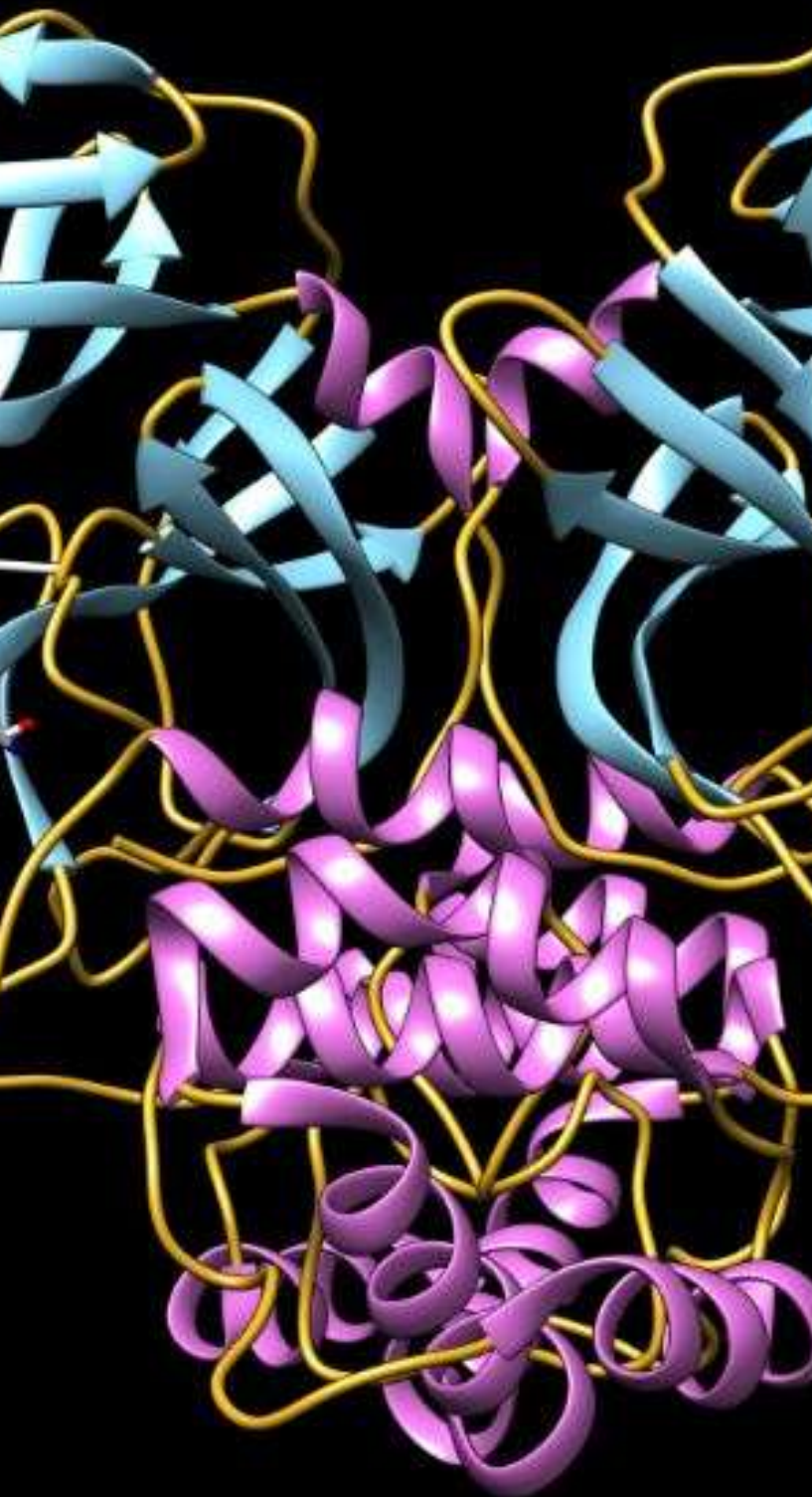


Image: Coronavirus Main Protease

Acknowledgement: David S. Goodsell, RCSB Protein Data Bank; doi: 10.2210/pdb6LU7/pdb

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Message from the President



Andrew H.-J. Wang

The COVID-19 pandemic remains the biggest global health issue, threatening the lives of millions of people. Since the start of the disease around December of 2019, this stubborn virus has caused over 160 million confirmed infected cases, and more than 3.36 million deaths worldwide. This RNA virus has already evolved into several mutant forms, from the original Wuhan strain into UK, South Africa, Brazil, and more recently India forms. It seemed the newer strains are even more troublesome, with faster transmission rate and potentially higher serious/death cases.

By now, there are 27 countries with more than one million confirmed cases, with United States ranked highest having near 33 million confirmed cases. However, the situation in the US seemed to be under control, with only 676 confirmed cases and 7 deaths yesterday (May 16). This great improvement is mostly due to the wider administration of vaccines.

The development of the situation in Great Britain is also interesting. Now there are around 2000 confirmed cases and 18 deaths daily, a vast improvement from last year.

The most worrisome situation is in India, which had relatively low infection cases only a few months ago, but jumped to have average daily 343,000 cases during the past two weeks. More than 3500 people died every day. The burden on India's medical system is near the threshold of breakdown.

The contrast between the situations in GB/US and India/Brazil is clearly due to the implementation of vaccines. In GB, the Astra Zeneca vaccine is the major one in use, while in the US, several vaccines including Pfizer, Moderna, and J&J vaccines are used.

Even though different approved vaccines used different technologies ranging from Adenovirus, mRNA, and molecular/protein platforms to produce, they all went through rigorous clinical processes to obtain their approval. So far, they have proven effective in containing the pandemic in several countries.

An important issue on vaccines we should think about is the fairness of distribution around the world. Some pharmaceutical companies in advanced countries can manufacture millions of vaccine doses in a short time, yet only small portions of them can be shared with other countries. For example, United States with around 300 million population, but they have now possessed over 3 billion doses of vaccines. However, many other countries can not have enough vaccines for their people, either due to economical or political reasons.

We were hoping an international organization like the UN can help resolve this problem. But sadly, even COVAX mechanism is not up to the speed in meeting the urgent needs of many countries like India which is under the vicious virus attack.

Certainly in the future, we will need effective drugs to remedy the infections, either using monoclonal antibodies or small molecules. I have confidence that scientists either from pharmaceutical companies or research institutions will develop useful drugs in the near future.

As the pandemic is still rampant, for the academic communities we all faced many changes in our life style. Schools are open with limited interactions. Classes are taught by remote platforms. Most conferences are now conducted virtually, in some rare cases, in person/virtual hybrid forms. Even though the virtual communication can be used, I still miss the good old way of having chats with our colleagues, speakers, students in a bar somewhere in some fascinating cities around the world, enjoying the different cultures...

For IUBMB, our triennial Congress in Lisbon has been postponed to summer 2022. Our affiliated federations FEBS and FAOBMB have also changed their congress dates. Their congress organizers have been working hard to put together excellent conference programs to be held in real/hybrid formats. I encourage our members to search our respective website (<https://iubmb.org/events/>) to find out the updated information and to register for these congresses, at least attending the conference through online pathway. In addition, several IUBMB Focused Meetings will be held as planned. The first FM this year was successfully held in Taipei on the topic of neurodegenerative diseases. The meeting was in an in person/hybrid format. As in past tradition, I opened the meeting as an IUBMB representative. The meeting presentations will be organized into a special Issue for IUBMB Life to be published later.

Our publications are being re-organized under the leadership of the Publications Committee chair, Professor Zengyi Chang. Our flagship journal IUBMB Life had a new Editor-in-Chief, Professor Stathis Gonos from Athens, appointed since January of this year. He has been extremely active in reshaping the editorial board, promoting manuscript submissions from excellent scientists and meeting the challenges of open access policy in publishing industry and more.

The IUBMB Executive Council will complete its three years term this summer. Some of us will finish their service to IUBMB. Our past President, Professor Joan Guinovart; Member for Education and Training, Professor Janet Macaulay; and Treasurer, Professor Franco Bonomi (December 2021), will leave the EC, after many years of dedicated services to IUBMB. Their contributions and influence have been tremendous and they will be remembered for many years to come.

Several new EC positions will be filled this summer in our General Assembly (GA) meeting after the FEBS Congress in Ljubljana. We have excellent candidates for these positions. I am particularly looking forward to having the General Secretary joining us after the GA elections. The GS position has been vacant for the past two years and the heavy-loading tasks have been put on by our President-elect Alexandra Newton and our capable assistant Charysse Austria. I salute their invaluable help.

Of course the job of EC is beyond what I just described. The Education activities have been organized nicely by Professor Janet Macaulay from Australia. All the conference and meeting affairs have been spearheaded by Professor Ilona Concha Grabinger from Chile. So our EC team is a true international combination! Our work is all voluntary and we are all passionate about achieving the goals of IUBMB.

Last but not the least, I am writing this President's Message for the last time as I shall finish my term as President in July. Of course I shall remain in EC as Past-President and continue to serve IUBMB for another three years.

Take care and keep healthy!



Andrew H.-J. Wang, PhD
President, IUBMB

IUBMB joins International Science Council



**International
Science Council**
The global voice for science

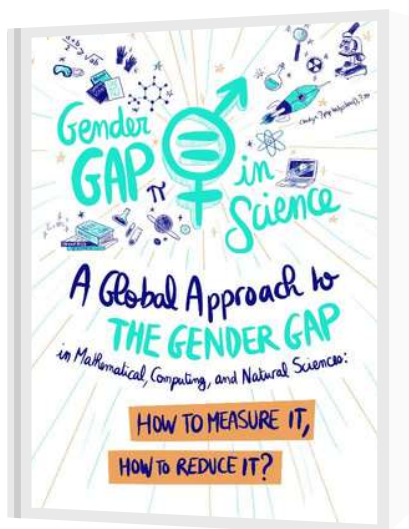
As of December 17, 2020, we are delighted to announce that the IUBMB has rejoined the [International Science Council](#) (ISC) as a Member Union.

IUBMB joins Standing Committee for Gender Equality in Science



We are pleased to work with the [Standing Committee for Gender Equality in Science](#) (SCGES) to promote equal access to science around the world. IUBMB is committed to ensuring [diversity and inclusion](#) in all of its leadership, training and education missions in the field of biochemistry and molecular biology.

The IUBMB representative and deputy representative are Alexandra Newton, President-Elect, and Ilona Concha Grabinger, Member for Congresses and Focused Meetings.



The SCGES began with the International Science Council (ISC). The ISC funded a project called “Gender Gap in Science”; book available on [website](#).

Congratulations

to our very own President-elect of IUBMB for being named inaugural ASBMB Fellow

[Alexandra Newton](#) is a distinguished professor at the University of California, San Diego, and co-director of the graduate program's molecular pharmacology track. Her lab investigates the molecular mechanisms of cell signaling and how they are deregulated in disease, with particular emphasis on protein kinase C and the phosphatase PHLPP.

From nominator John D. Scott: "Alexandra is a thought leader in the field of signal transduction, a role model for the next generation of women biochemists, and a tireless advocate for ASBMB. ... There is no question that ASBMB is a better organization as a result of (her) insights, commitment and enthusiasm."

[ASBMB fellows](#) are recognized for their meritorious efforts to advance the molecular life sciences through sustained outstanding accomplishments in areas such as scientific research, education, mentorship, commitment to diversity and service to the society and scientific community.

She was also featured on the ASBMB Today last December 2020 as [A global champion of 'the big puzzle' - biochemistry](#).

"I always tell anyone who is starting a career in science, focus on the positives. Follow your passion and love what you are doing to overcome all the negatives."



Alexandra Newton

an ASBMB member and the third woman to serve as IUBMB President, is focused on diversity and inclusion

Dr. Francis Amara

IUBMB Ambassador for Africa

Celebrating Outreach in Africa

We have now started activities at the STEM Education Center that was completed in 2020. Our first visit of university students took place on Saturday, March 20, 2021.

Our Network (Kenema Global Science) is hoping to sign a memorandum with the IUBMB to expand its Outreach projects to West Africa, so that IUBMB members can deliver online lectures to the STEM Education Center, pay a visit there in future.

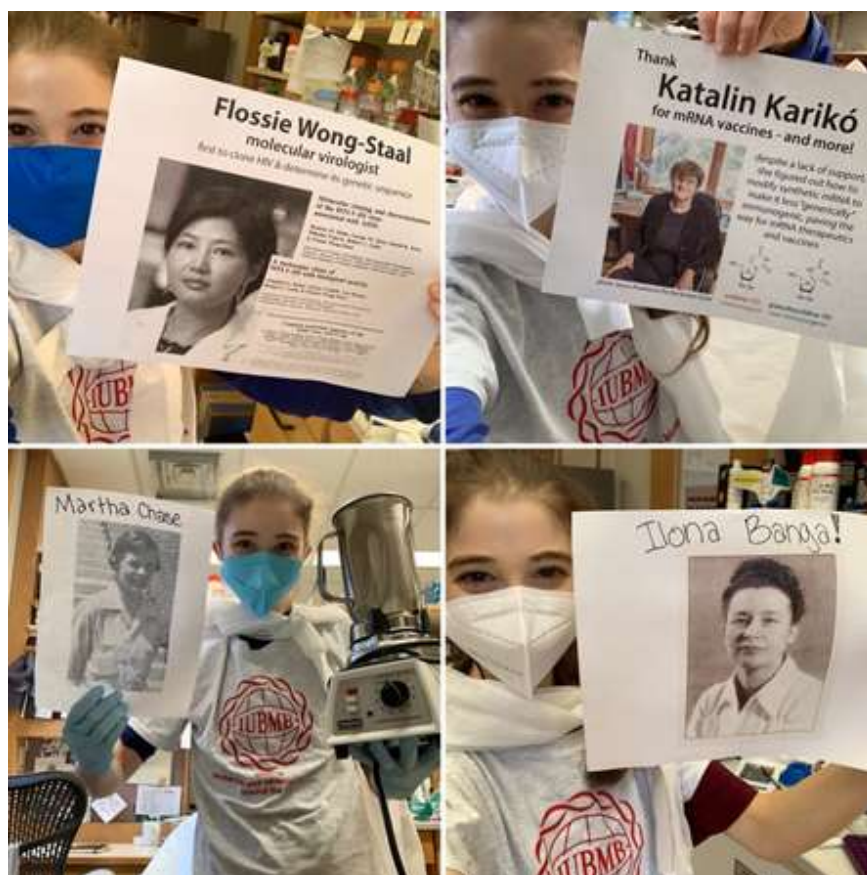


Photo of STEM Education Center in Kenema, Sierra Leone, West Africa

Brianna Bibel

IUBMB Student Ambassador

This month, our Student Ambassador Bri Bibel, graduate student at Cold Spring Harbor Labs, has been honoring Women's History Month by devoting her weekly Bri-fing from the Bench posts for our social media to highlighting the achievements of women scientists who made ground breaking discoveries in the biosciences: Flossie Wong-Staal, the Chinese-American virologist who was the first to clone HIV and determine the function of its genes; Martha Chase, the American biochemist whose experiments showed that genetic information is stored in nucleic acids and not proteins; Katalin Karikó, the Hungarian biochemist whose tireless research paved the way for mRNA vaccines; Ilona Banga, the Hungarian biochemist who co-discovered actinomycin. We thank Bri for these wonderful tributes to biochemical history driven by women! And to learn about more Women in Science, check her blog: <https://thebumblingbiochemist.com/lets-talk-science/women-in-science/>



*Photo Credits

Katalin Kariko photo: Jessica Kourkounis for the Boston Globe

Martha Chase photo: Extracted from a larger image of Martha Chase and Alfred Hershey. Karl Maramorosch, Photographer.
[https://urldefense.com/v3/_http://scarc.library.oregonstate.edu/coll/pauling/dna/pictures/portrait-chase.html_!!LLK065n_VXAQ!1aGzaxJcKbVT7Om67d1oVj9lssqNAP30lYs254buFHlaGfpeYaYkdlt-eF-doPBg\\$](https://urldefense.com/v3/_http://scarc.library.oregonstate.edu/coll/pauling/dna/pictures/portrait-chase.html_!!LLK065n_VXAQ!1aGzaxJcKbVT7Om67d1oVj9lssqNAP30lYs254buFHlaGfpeYaYkdlt-eF-doPBg$)

Ilona Banga photo: Liebmann Béla SZTE Egyetemi Gyűjtemény tulajdona, CC BY-SA 3.0

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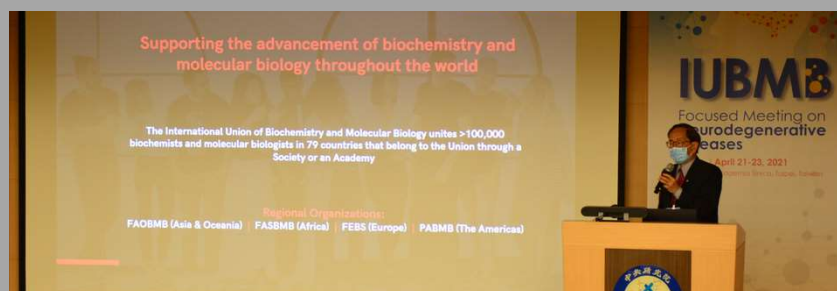
Flossie Wong-Staal photo: National Institutes of Health (NIH)

IUBMB FOCUSED MEETING

Neurodegenerative Diseases

Taipei

On April 21st-23rd, 2021 the hybrid virtual [IUBMB Focused Meeting “Neurodegenerative Diseases”](#) was held in Taipei. This IUBMB Focus Meeting was organized by Dr. Yun-Ru (Ruby) Chen and colleagues from Academia Sinica, Taiwan. At the beginning of the meeting, IUBMB President Andrew Wang presented the IUBMB mission and activities. The meeting was a great success.



Congratulations to

IUBMB Jubilee Lecture



Professor Ana Maria Cuervo, from the Albert Einstein College of Medicine, Bronx, NY, USA will present the IUBMB Jubilee Lecture in Tribute to Margarita Salas at the virtual [43rd Annual Meeting of the Spanish Society of Biochemistry & Molecular Biology](#) to be held online on July 19-22, 2021 on "*Selective autophagy: efficient recycling for a long healthy life*". She is honored for her outstanding contributions to understanding autophagy.

Congratulations to

IUBMB Fellowship Awardees of October 2020



Congratulations to NEW IUBMB Fellowship Awardees of 2021



MILLIPORESIGMA VIRTUAL MEETING FELLOWSHIPS


Osvaldo Contreras
Chile


Simab Kanwal
Thailand


Gonzalo Alejandro Mayorga-Weber
Chile


Lai Yue Chan
Australia



TRAVEL FELLOWSHIPS



Nipuna Weerasinghe

From the University of Arizona, USA, has been awarded the very first IUBMB Travel Fellowship to present his research "Role of Soft Matter in G-Protein-Coupled Receptor Signaling" at the 2021 International Experimental Biology and Medicine Conference (2021 IEBMC)

Congratulations to PROLAB Awardees of 2020



Congratulations to the jointly-funded PROLAB awardees between the Pan-American Association for Biochemistry and Molecular Biology ([PABMB](#)), the International Union of Biochemistry and Molecular Biology ([IUBMB](#)) and the American Society for Biochemistry and Molecular Biology ([ASBMB](#)). The 10 young scientists will use the awards to conduct research in academic laboratories in the United States and Canada.

This year's PROLAB travel grants are going to Ph.D. students and postdoctoral fellows from Argentina, Brazil, Chile and Uruguay. All but one will work in the United States. View *article* [here](#).

Carolina Alberca, Argentina
Giuliano Tomás Antelo, Argentina
Melisa Antinori, Argentina
Dayana Benchoam, Uruguay
Priscila Chiavellini, Argentina

Pablo Cruz Núñez, Chile
María Florencia González Lizárraga, Argentina
Marisol León Cabrera, Brazil
María Florencia Rossetti, Argentina
Ian Silva, Chile

PUBLICATIONS COMMITTEE

Please welcome our [Publications Committee](#), comprising of all the Editors-in-Chief of IUBMB Journals and members appointed by the Executive Committee of IUBMB, who will advise the Executive Committee on all matters that concern Publications including the appointments of Editors-in-Chief of the Union's journals, recommend publication policies with the journal Publisher to the Executive Committee, coordinate and conduct annual reviews on the activities of the Editors-in-Chief of the Union's journals.



Zengyi Chang, Chair
China



Angelo Azzi
USA



Judith S. Bond
USA



Gianfranco Gilardi
Italy



Stathis Gonos
Greece



Akira Kikuchi
Japan

PUBLICATIONS COMMITTEE



Julia Kostova
USA



Phillip A. Ortiz
USA



Vladimir Popov
Russia



Peter Shepherd
New Zealand



Jian-Jiang Zhong
China

IUBMB JOURNALS

IUBMB
Life

BioFactors

Biotechnology and
Applied Biochemistry

Biochemistry and
Molecular Biology
Education



IUBMB
Journals

We are excited to highlight new research from the IUBMB Journals

Please also consider [submitting your own research](#) to the IUBMB Journals. You can expect to work with **distinguished Editorial Board** members and benefit from **worldwide circulation and readership** through our publishing partnership with Wiley. For more information about the journal and submissions, feel free to peruse the [IUBMB journals](#) website.

For now, please enjoy highlights of our recent content. Happy reading!

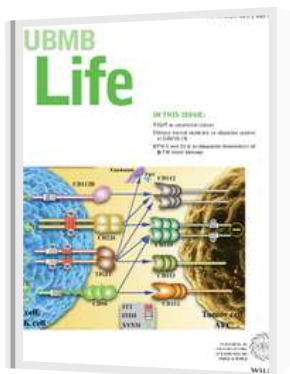
Did you know? Wiley and Jisc just signed an agreement that allows UK authors to publish Open Access in the IUBMB Journals at no cost to them.

Thanks to a partnership our publisher Wiley has signed with Jisc, certain UK institutions now have full access to journals published by Wiley, including the IUBMB Journals. Further, the partnership enables authors at [participating UK institutions](#) to **publish open access at no cost to them** in the IUBMB Journals. Payment of the associated Article Publication Charges (APC) would be covered via the partnership, and authors will not need to cover the APCs from their own pockets.

Wiley has also signed similar agreements with universities in [Germany](#), [the Netherlands](#), [Austria](#), [Norway](#), [Hungary](#), [Finland](#), [Sweden](#), and with the US-based [OhioLink](#) And [VIVA](#).

Submit your research to the IUBMB Journals today.

IUBMB JOURNAL HIGHLIGHTS

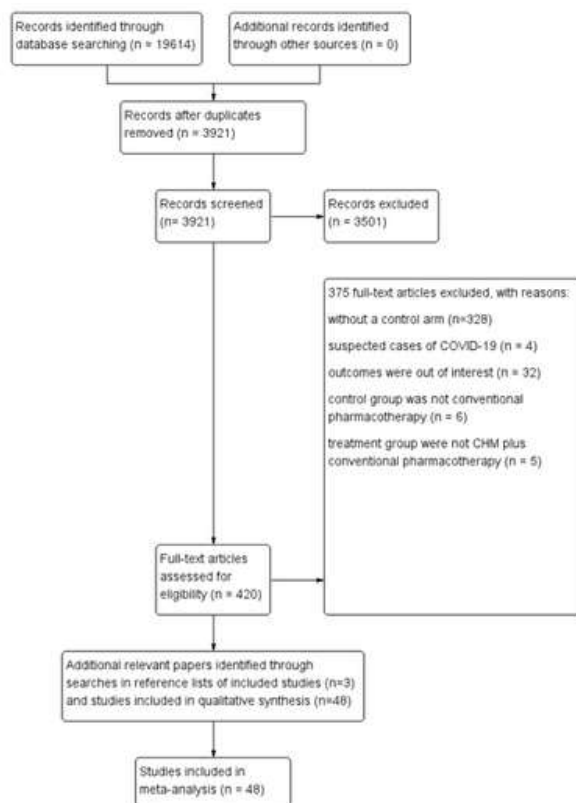
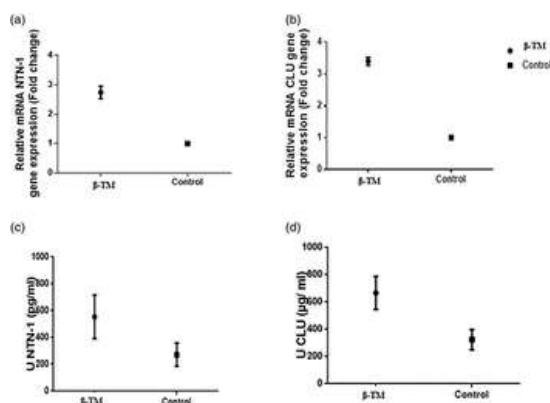


New Issue: Volume 73, Issue 5

The effect of Chinese herbal medicine on digestive system and liver functions should not be neglected in COVID-19: An updated systematic review and meta-analysis

Shihua Shi, Fei Wang, Jiang Li, Yulong Li, Weihao Li, Xiaoping Wu, Shuo Kou, Yongcan Wu, Xiaomin Wang, Caixia Pei, Demei Huang, Heng Qiu, Peili Wang, Zhenxing Wang

Gastrointestinal symptoms and liver injury are not uncommon in patients with coronavirus disease 2019 (COVID-19). The empirical use of Chinese herbal medicine (CHM) during COVID-19 has received noticeable attention. This meta-analysis critically appraising CHM seemingly indicated that the advantage of CHM as an adjuvant showed more on reducing the rate of COVID-19 aggravation and nucleic acid-negative conversion time to treat the emergency symptoms, than improving gastrointestinal symptoms and liver function, based on the latest evidence. Our findings underlined the need of paying attention to COVID-19 patients suffering gastrointestinal symptoms and liver injury, which may inspire the development of new drugs



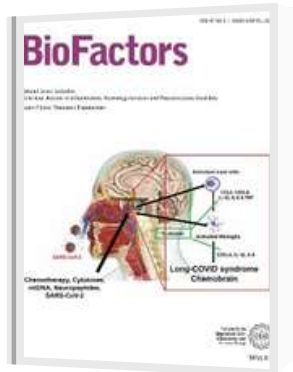
Netrin-1 and clusterin: Innovative potential diagnostic biomarkers for early renal damage in β-thalassemia major children

Sarah Ragab Abd El-Khalik, Radwa Mahmoud Sharaby, Elham Nasif, Mohamed Bassiony Hamza, Rowida Raafat Ibrahim

This study focused on both Netrin-1 (NTN-1) and Clusterin (CLU) preliminary assessment as surrogate noninvasive biomarkers, allowing early detection of renal tubular dysfunction in children with beta-thalassemia major (β-TM). Urinary NTN-1 and CLU concentrations and their PBMCs mRNA relative expression levels were significantly increased in β-TM children relative to controls, as well as the oxido-inflammatory biomarkers. These changes were also correlated significantly with other renal function parameters. Hence, NTN-1 and CLU are qualified as promoted new noninvasive biomarker panels for early detection of renal injury in β-TM children. Furthermore, Urinary NTN-1 is recommended as a precise one during the clinical practices.

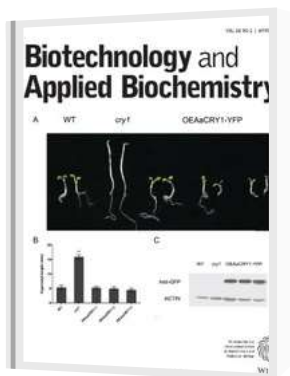
Follow the new IUBMB Life account on Twitter [@IUBMB_Life](#) for the journal's latest news and updates.

IUBMB JOURNAL HIGHLIGHTS



[New Special Issue: Volume 47, Issue 2](#)

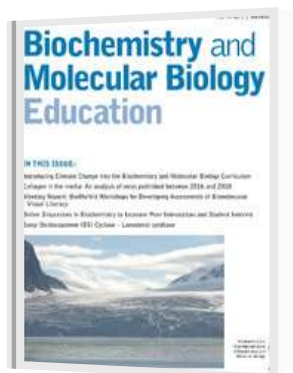
Special Issue on “Luteolin: Beneficial Actions in Inflammation, Neurodegeneration and Post-Infectious Disorders”



[Latest Issue: Volume 68, Issue 2](#)

Issue Highlights

[Harmful effects of high amounts of glucose on the immune system: An updated review](#)



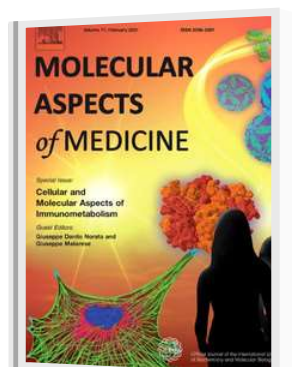
[New Virtual Issue on Teaching in the Time of COVID-19](#)

[Latest Issue: Volume 49, Issue 2](#)

Issue Highlights

[Introducing climate change into the biochemistry and molecular biology curriculum](#)

[BarcodingGO: A problem-based approach to teach concepts related to environmental-DNA and bioinformatics](#)



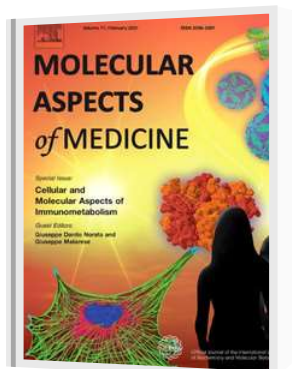
Featuring

[Iron in Health and Diseases by Guenter Weiss, Manfred Nairz](#)
[Volume 75, October 2020](#)

IUBMB JOURNAL HIGHLIGHTS

Molecular Aspects of Medicine: A Brief History of a Reviews Journal

By Angelo Azzi



Molecular Aspects of Medicine was founded in 1976 as an Interdisciplinary Reviews Journal by Harold Baum and J. Gergely, Editors and published by Pergamon Press.

In 1991, when Pergamon Press was acquired by Elsevier, Molecular Aspects of Medicine reverted to a single Editor-in-Chief: Harold Baum, King's College London, with an Associate Editor Salvatore Di Mauro, Columbia University, New York. Two years later, in 1993, Angelo Azzi became Associate Editor and five years later, in 1998 he was appointed as the Editor-in-Chief.

In his capacity as Chair of the IUBMB Committee on Publications in 2000 Angelo Azzi negotiated the sponsorship agreement of the Journal between IUBMB and Elsevier. Subsequently, in 2004, a successful collaboration with Dr. Bernard Westerop, Publisher produced a relaunch of the journal in a new, larger format, with a new color cover and typographical vest, and with an increased number of editors and excellent topical issues. One of the highest citations went to a paper published in 2005 on "Medicinal plants: traditions of yesterday and drugs of tomorrow" authored by Ameenah Gurib-Fakim who, ten years later, became the 6th President of the Republic of Mauritius.

With the new Editor-in-Chief, punctuality in publishing and better content permitted to submit the Journal to ISI for an Impact Factor. Due to the continuing pressure by Dr Jaap van Harten, finally Thompson Reuters attributed an Impact Factor of 7.386 to the journal in 2007. The Impact Factor of Molecular Aspects of Medicine has fluctuated greatly over the years but recovered and reached the present level of 9.577. With 102 articles published in 2018-2019 and 1375 citations obtained in 2020 (Data base-The Journal of Citations Report, Clarivate) an Impact Factor of 13.48 for 2020 has been calculated. Aside from the solid citations obtained by the journal, its articles receive recognition through (social) media, such as "Emerging role of mitophagy in cardiovascular physiology and pathology" by Sergio Lavandero et.al as seen using the PlumX metric tool.

Under a new publishing agreement between the IUBMB and Elsevier in 2007, a new and important provision was included where the IUBMB qualified as "the Publisher's designated and exclusive scientific partner" and the notice "An Official Journal of the IUBMB" along with the seal of the Union was to be printed on the cover of the Journal. This partnership is still true and gaining in strength.

The present Editorial Board comprises P. Ascenzi (Italy), S.W. Choi (Korea), T. Finkel (United States), G.L. King (United States), O. Küçük (United States), A. Lichtenstein, (United States), C. Montecucco (Italy), G.M. Pasinetti (United States), G. Poli (Italy), C.N. Serhan (United States), C. Wahlestedt, (United States), W.J. Whelan (United States). A revision of the Editorial Board is planned for 2021.

IUBMB JOURNAL HIGHLIGHTS

Molecular Aspects of Medicine: A Brief History of a Reviews Journal

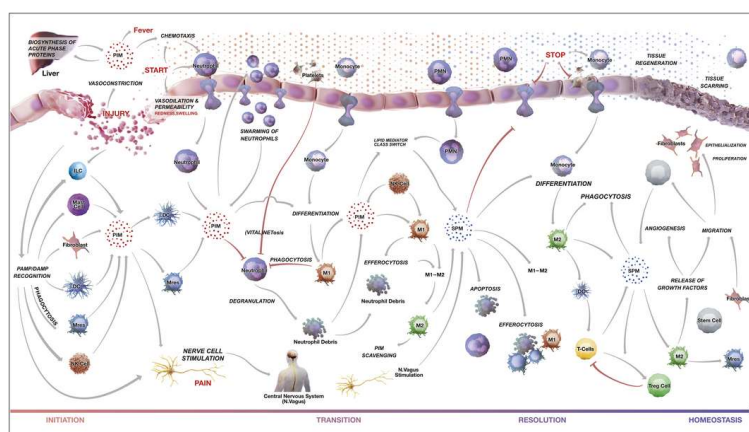
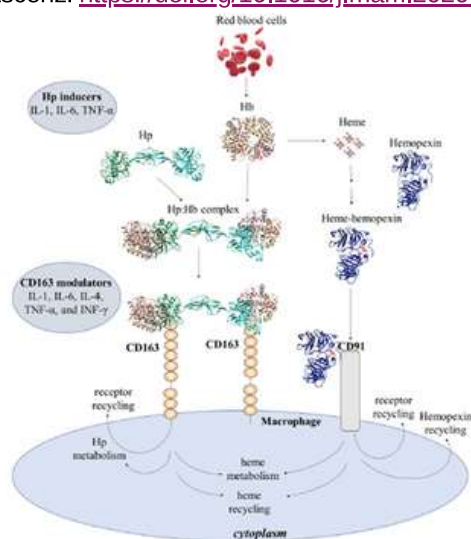
By Angelo Azzi

The following Special Issues have been published in the last two years:

- Nuclear receptors: from physiology to physiopathology (*Guest Editor: David Volle*)
- Cellular and Molecular Aspects of Immunometabolism (*Guest Editors: Giuseppe Danilo Norata and Giuseppe Matarese*)
- Inflammasome (*Guest Editor: Jianbin Ruan*)
- Iron in Health and Diseases (*Guest Editors: Guenter Weiss and Manfred Nairz*)
- The Atlas of Inflammation Resolution (AIR) by Charles N. Serhan et al
- Haptoglobin: from hemoglobin scavenging to human health (*Guest Editors: Paolo Ascenzi and Alessandra di Masi*)
- Liquid biopsy analysis in cancer diagnostics (*Guest Editors: Anders Stahlberg, Mikael Kubista and Daniel Andersson*)
- Mitochondria: New developments in pathophysiology (*Guest Editors: Alicia Kowaltowski and Marcus Oliveira*)
- Non-coding RNAs and DNAs in health and disease (*Guest Editors: George Calin and Linda Fabris*)
- New insights on the molecular aspects of colorectal cancer (*Guest Editor: Sergi Castellvi-Bel*)
- Aspects of the physiology of brown adipose tissue (*Guest Editor: John R. Speakman*)
- Mediterranean (*Guest Editor: Diet Lluís Serra-Majem*)
- Molecular Aspects of Signalling in Diabetes (*Guest Editors: Gernot Desoye and Luis Sobrevia*)
- Pathophysiology of Organ and Tissue Fibrosis (*Guest Editors: Massimo Pinzani and Maurizio Parola*)

Illustrations

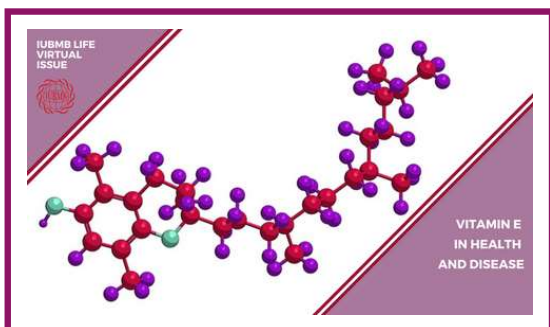
The intravascular hemolysis of the red blood cells, From “Haptoglobin: From hemoglobin scavenging to human health”, A. di Masi, G. de Simone, C. Ciaccio, S. D’Orso, M. Coletta and P. Ascenzi <https://doi.org/10.1016/j.mam.2020.100851>



The landscape of acute inflammatory response, From The Atlas of Inflammation Resolution (AIR) by Charles N. Serhan et al <https://doi.org/10.1016/j.mam.2020.100894>

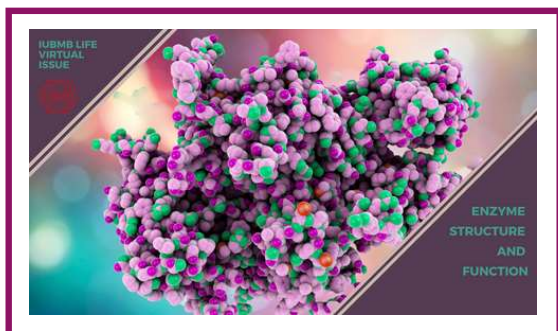
IUBMB LIFE VIRTUAL ISSUES

Vitamin E in Health and Disease, Edited by Prof Jeanette Erdmann, Associate Editor



Vitamin E, or tocopherol, is a fat-soluble vitamin that acts as an antioxidant, protecting the cell membrane. This virtual issue of *IUBMB Life* highlights recent reviews that provide a comprehensive overview of the essential role of vitamin E in health and disease.

Enzyme Structure and Function, Edited by Prof Mary Reyland, Associate Editor



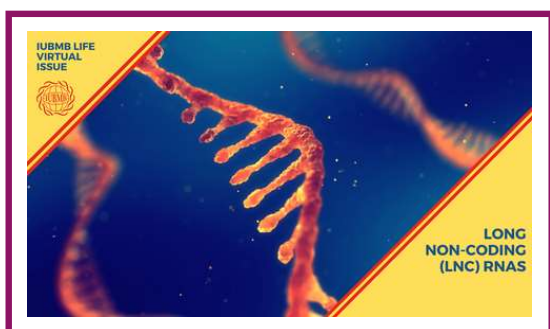
This collection of recent *IUBMB Life* articles explores how enzyme structure dictates function, the consequences of alterations in structure for human disease, and how knowledge of enzyme structure can be exploited to develop new therapies.

Inflammation and Inflammasomes, Edited by Prof Dominic Ng, Associate Editor



Inflammation is a normal response of the immune system to fight infections and protect against injury. However, excessive inflammation can contribute to diabetes, asthma, cancer and autoimmune diseases. These recent *IUBMB Life* articles pertain to inflammation and inflammasomes.

Long, non-coding (lnc) RNAs, Edited by Prof Toni Gabaldon, Associate Editor



Long, non-coding RNAs are defined by their length (>200 nt) and their low coding potential. These recent *IUBMB Life* articles report significant progress towards understanding the specific roles and mechanisms of action of diverse lncRNAs.

IUBMB LIFE VIRTUAL ISSUES

Connections Between Metabolic Disorders and Tumors,

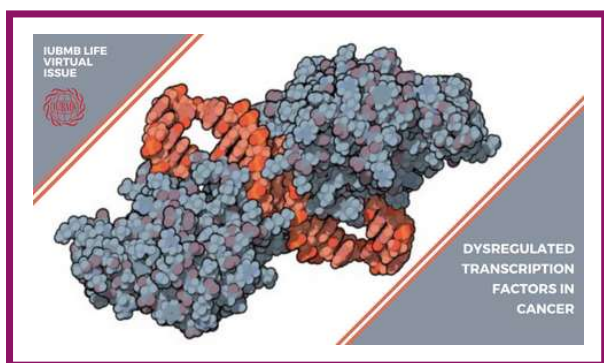
Edited by Prof Jianping Ding, Associate Editor



This collection of recent *IUBMB Life* articles features research and review articles that provide new evidence on the connection between metabolic disorders and tumors and summarizes recent progress in this field.

Dysregulated Transcription Factors in Cancer,

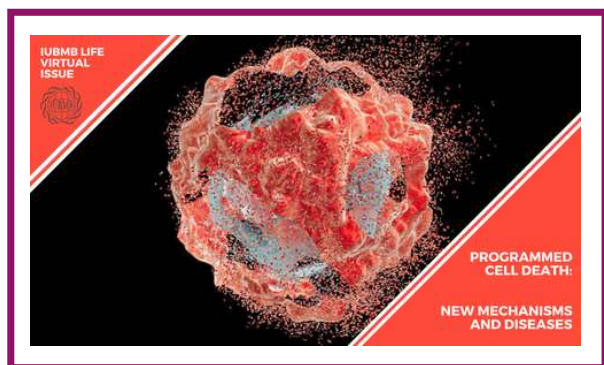
Edited by Prof Yi-Ching Wang, Associate Editor



Transcriptional deregulation plays a role in development of several human diseases including various cancers and this special collection of recent *IUBMB Life* articles provides evidence that deregulation of transcription factors is a feature of cancer stemness and drug resistance.

Programmed Cell Death: New Mechanisms and Diseases,

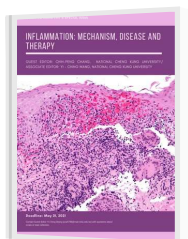
Edited by Prof Yi-Ching Wang, Associate Editor



IUBMB Life is pleased to present a collection of recently published articles on the topic of programmed cell death including apoptosis, autophagy, ferroptosis and mitophagy.

IUBMB LIFE JOURNAL DEADLINES

Special Issue Call for Papers

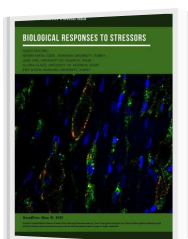


Inflammation: mechanism, disease, and therapy

GUEST EDITORS: Yi-Ching Wang (National Cheng Kung University) and Chih-Peng Chang (National Cheng Kung University)

Manuscripts should be submitted by **31 May 2021**

Expected issue publication will be October 2021

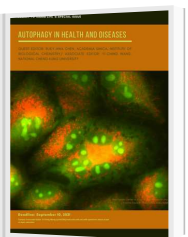


Biological Responses to Stressor

GUEST EDITORS: Nesrin Kartal Ozer (Marmara University), Jose Vina (University of Valencia), Gloria Olaso (University of Valencia), Erdi Sozen (Marmara University)

Manuscripts should be submitted by **31 May 2021**

Expected issue publication will be November 2021



Autophagy in Health and Disease

GUEST EDITOR: Ruey-Hwa Chen (Institute of Biological Chemistry, Academia Sinica, Taiwan)

Manuscripts should be submitted by **10 September 2021**

Expected issue publication will be February 2022



Multicellular Microenvironment Effects on the Modulation of Cell Functions

GUEST EDITOR: Xiangya Ding, Nanjing Medical University

Manuscripts should be submitted by **30 September 2021**

Expected issue publication will be early 2022



Proteinopathies in Neurodegenerative Diseases: Perspectives on Aging, Genetics, Protein Folding, and Cell Therapy

GUEST EDITORS: David Blum (Lille Cedex), Cheng-Ting Chien (Academia Sinica), Yung-Feng Liao (Academia Sinica)

Manuscripts should be submitted by **30 September 2021**

Expected issue publication will be March 2022



Extracellular Matrix: The Dynamic Structural and Functional Network in Health and Disease

GUEST EDITORS: Nikos Karamanos (Univ. of Patras), Sylvie Ricard-Blum (Univ. of Lyon), Dimitris Kletsas (NCSR Demokritos, Athens)

Manuscripts should be submitted by **31 October 2021**

Expected issue publication will be March 2022

IUBMB JOURNAL DEADLINES

IUBMB is searching for a New Editor-in-Chief for

Biotechnology and Applied Biochemistry

Published since 1979, *Biotechnology and Applied Biochemistry* is dedicated to the rapid publication of high quality, significant research at the interface between life sciences and their technological exploitation. The Editor will consider papers for publication based on their novelty and impact as well as their contribution to the advancement of medical biotechnology and industrial biotechnology, covering cutting-edge research in synthetic biology, systems biology, metabolic engineering, bioengineering, biomaterials, biosensing, and nano-biotechnology. More details [here](#).

Application Deadline May 31, 2021

BioFactors

BioFactors a journal devoted to the rapid publication of highly significant original research articles and reviews in experimental biology in health and disease. *BioFactors* publishes research dealing with the identification of new substances and the elucidation of their functions at the biophysical, biochemical, cellular and human level as well as studies revealing novel functions of already known biofactors. The journal encourages the submission of studies that use biochemistry, biophysics, cell and molecular biology and/or cell signaling approaches. More details [here](#).

Application Deadline October 31, 2021

Send applications to Prof. Zengyi Chang (changzy@pku.edu.cn)

UPCOMING IUBMB DEADLINES



Funding for Educational Activities deadline extended and changed to allow funding for online (virtual) activities

The deadline for funding for Educational Activities has now been extended to **May 31st 2021** and includes funding for both face-to-face and online (virtual) workshops, meetings or symposiums. Please refer to the IUBMB website [here](#).



OPEN DEADLINE

**IUBMB MilliporeSigma
Virtual Meeting Fellowships**



Meeting you'd like to attend from anywhere in the world? In response to the pandemic, we have collaborated with MilliporeSigma to offer [Virtual Meeting Fellowships](#) with **OPEN DEADLINES**

UPCOMING IUBMB DEADLINES

[IUBMB Focused Meetings](#), up to three each year, should cover “cutting edge science” of clear relevance to Biochemistry and Molecular Biology. Additionally, organizers of an IUBMB Focus Meeting are invited to edit a Special Issue in one of IUBMB Journals.

The proposals for 2022 IUBMB Focused Meetings have to be presented on June 1st, 2021.



[IUBMB Jubilee Lecture Awards](#) recognize outstanding contributions in biochemistry and molecular biology. Nominate your Plenary Speaker (in person or virtual).

UPCOMING MEETINGS 2021



A BIOCHEMICAL SOCIETY AND FEBS
ONLINE TRAINING EVENT

**Evolving molecular
bioscience education**

27–28 May 2021

FREE to members of any FEBS organizations

Register online: bit.ly/Bioscience-Education

Please note this event has now sold out. Please email conferences@biochemistry.org if you would like to be included on the waiting list.



Innovation in Undergraduate Teaching of Life Sciences - Webinar series

Online, Wednesday 17 March 2021 – Wednesday 9 June 2021

	K. Köhler, E. Hafen - May 12	P. Cosson - June 9	J.P. Kraehenbuhl - Sept. 15	A. Herráez - Oct. 13
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NEXT **WEBINAR SERIES** PRESENTS:

- **June 9** (17.30): **Pierre Cosson** (University of Geneva, CH);
Construction of a [new bachelor curriculum](#) with integration of multiple soft skills
- **September 15** (17.30): **Jean-Pierre Kraehenbuhl** (Health Sciences eTraining ([HSeT](#)) Foundation; Épalinges, CH)
with video clips from **Meera Manra** (University of Mauritius), et **Hervé Bourhy** (Institut Pasteur, Paris, France);
COLT: a new weapon to disseminate knowledge.
- **October 13** (17.30): **Angel Herráez** (University of Alcalá, Alcalá de Henares; Spain);
Instructional design of a virtual laboratory to perform genetic diagnosis experiments

UPCOMING MEETINGS 2021



Teaching Science with big data

Brought to you by the [American Society for Biochemistry and Molecular Biology](#), and the [International Union of Biochemistry and Molecular Biology](#).

This international meeting guides faculty members on how to teach using web-based, free-access large data sets. What do we mean by "big data"? [Data that are so large, fast or complex that they're difficult or impossible to process using traditional methods.](#)

Join us to learn these valuable teaching skills.

Who should attend:

This workshop is for faculty members who would like to get started teaching science with open-source big-data applications. *Participants are not expected to have expertise in computer programming, Jupyter Notebooks or RStudio.*

Event format:

The 2021 event will take place virtually. See the full schedule [here](#).

Topics covered:

- Investigating evolutionary relationships through cluster analysis using Jupyter Notebook
- Visualization of Top 8000's protein data set using RStudio
- Pedagogy of working with climate big data using RStudio
- Visualization of Top 8000's protein data set using Biopython
- Resources and implementation plans

Important deadlines:

- JUNE 1:** Poster Abstract deadline
JUNE 1: Early Registration deadline
JUNE 16: Regular registration deadline

KEYNOTE SPEAKER



Michael Lauer
National Institutes of Health

FACILITATORS



Alon Friedman
University of South Florida



Wally Novak
Wabash College



Catherine O'Reilly
Illinois State University



Charlie Weiss
Augustana University



Stephen Zepecki
National Oceanic and
Atmospheric
Administration

UPCOMING MEETINGS 2021

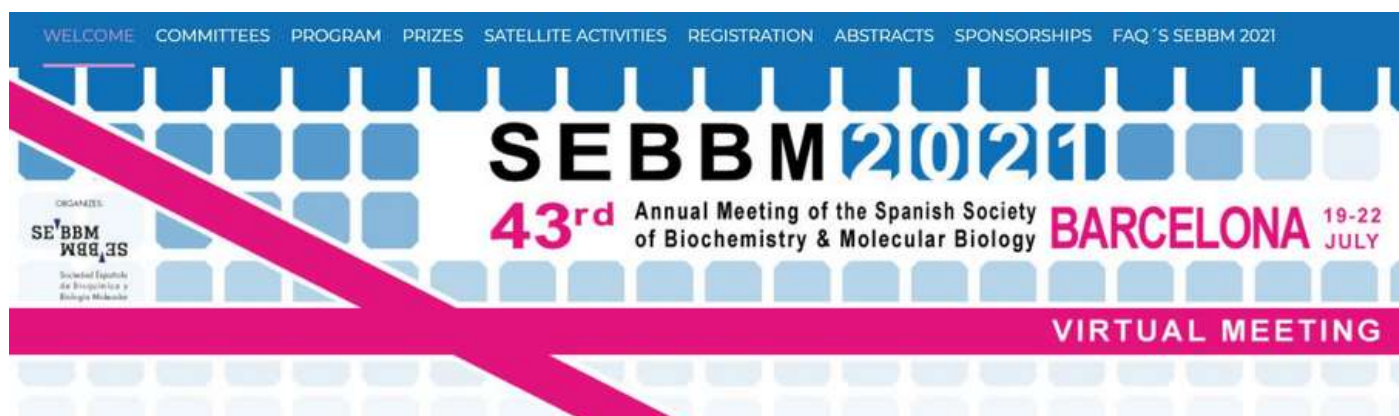


Join us at the [45th FEBS Congress](#) entitled "Molecules of Life: Towards New Horizons", which will be held as a **virtual** event from **July 3-8, 2021**, hosted by the Slovenian Biochemical Society together with the Croatian Society of Biochemistry and Molecular Biology.

MAY 23: Late-breaking Abstract Submission Deadline | **JULY 1:** Online Registration Deadline | [Meeting Link](#)

IUBMB Ordinary General Assembly

The IUBMB Executive Committee is planning to have the next Ordinary General Assembly after the 45th FEBS Congress on **Thursday, July 15, 2021**. Because of the COVID19 pandemic, the meeting will be held virtually.



On behalf of the Organizing Committee we are pleased to invite you to attend "The 43rd Congress of the Spanish Biochemical and Molecular Biology Society", to be held online on July 19-22, 2021.

MAY 31: Early Registration Deadline | [Meeting Link](#)

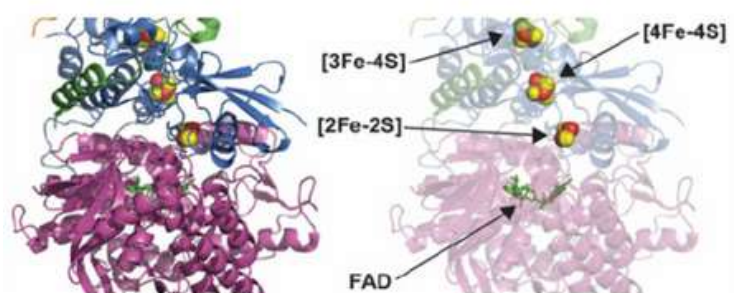
UPCOMING MEETINGS 2021

IUBMB ADVANCED SCHOOL

COFACTOR ASSEMBLY, TRANSPORT AND INSERTION

Novel insights into their relevance to human health and well-being

September 14-17, 2021, Spetses Island, Greece | [Meeting Link](#)



Save the date!



Varadero Beach, Matanzas, Cuba

JUL 2: New Application Deadline | [Online Poster](#) | [Meeting Link](#)

**22-25
NOVEMBER
2021**



MOLECULES | LIFE | DIVERSITY

Christchurch, New Zealand & Online

*16th Congress of the Federation of Asian and
Oceanian Biochemists and Molecular Biologists*

MEET OUR SPEAKERS



Dame Anne Salmond

NEW ZEALAND
Mātauranga &
molecular science



Dr Emily Leproust

USA
Synthetic
biology



Prof Ron Milo

ISRAEL
Systems biology &
sustainability



Prof Rommie Amaro

USA
Molecular
dynamics



Prof Gerd Blobel

USA
Transcription
& epigenetics



Prof Paul Young

AUSTRALIA
Virology &
vaccines



Dr Jemma Geoghegan

NEW ZEALAND
Ecology & evolution
of COVID-19

**REGISTRATIONS
AND CALL
FOR ABSTRACTS**

**Now
Open**

Speakers will continue
to be announced in the
upcoming months, so be
sure to check back on the
Congress website

Hosts



The Australian Society
for **Microbiology**
bringing Microbiologists together

NZMS New Zealand
MICROBIOLOGICAL
Society, Inc.

NZSPB
New Zealand Society of Plant Biologists



Peak
Bodies



UPCOMING MEETINGS 2022

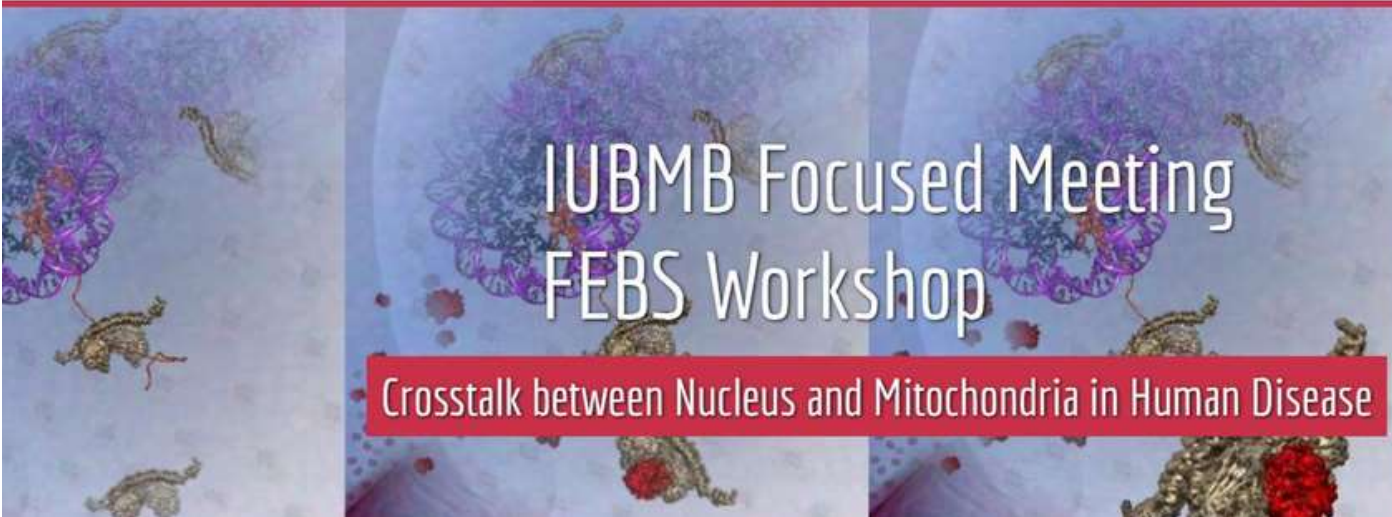


SEP 10: Abstract Deadline | NOV 12: Early Registration | [Meeting_Link](#)



IUBMB Focused Meeting / FEBS Workshop
Crosstalk between Nucleus and Mitochondria in Human Disease
22-25 March 2022 | Seville, Spain

Register
Login



IUBMB Focused Meeting
FEBS Workshop
Crosstalk between Nucleus and Mitochondria in Human Disease

SEP 30: Abstract Submission Deadline | OCT 31: Registration Deadline | [Meeting_Link](#)

Save the date!

Young Scientists Program

July 6 - 9, 2022

UPCOMING MEETINGS 2022



Molecular Targets for Anti-aging Interventions
23-28 May 2022 | Spetses Island, Greece



APR 30, 2022: Application and Registration Deadline | [Meeting_Link](#)

The 25th IUBMB, 46th FEBS, and 15th PABMB Joint Congress

July 9 - 14, 2022 | Lisbon, Portugal

*****postponed from 2021*****



Redox Alterations and Cellular Responses:
From Signalling to Interventions
19-25 September 2022 | Spetses Island, Greece



Joint SFRR-Europe / IUBMB / FEBS Advanced Lecture Course 2021

MAR 15, 2022: Application Deadline | [Meeting_Link](#)

UPCOMING MEETING 2024

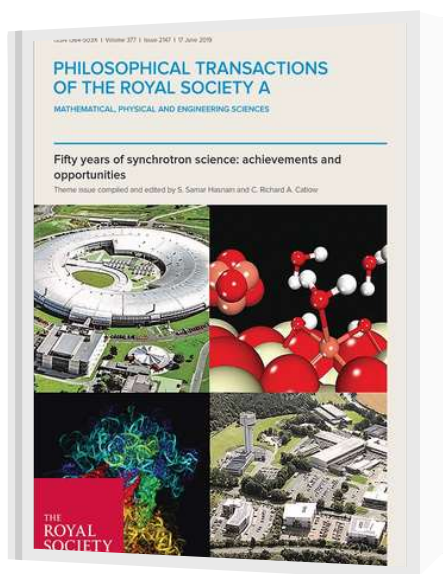


AUSTRALIAN SOCIETY
FOR BIOCHEMISTRY AND
MOLECULAR BIOLOGY



We are thrilled to announce that Melbourne will host the [26th Congress](#) of International Union of Biochemistry and Molecular Biology (IUBMB) from 22-26 September 2024. We look forward to seeing you there!

NOTICES



Royal Society Publishing - Philosophical Transactions A - Fifty years of synchrotron science: achievements and opportunities compiled and edited by S Samar Hasnain and C Richard A Catlow - is now completely **FREE** to access directly at <https://royalsocietypublishing.org/toc/rsta/2019/377/2147>

For more information, please contact Felicity Davie at:

Felicity Davie

Royal Society Publishing

T: +44 20 7451 2647

The Royal Society

6-9 Carlton House Terrace

London SW1Y 5AG

E-mail: Felicity.Davie@royalsociety.org

<http://royalsocietypublishing.org>

Royal Society Publishing - Philosophical Transactions B entitled Retrograde signalling from endosymbiotic organelles compiled and edited by Thomas Pfannschmidt, Matthew J Terry, Olivier Van Aken and Pedro M Quiros and the articles can be accessed directly at www.bit.ly/PTB1801

A print version is also available at the special price of £35.00 per issue from debbie.vaughan@royalsociety.org

THE
ROYAL
SOCIETY
PUBLISHING

IUBMB Programs and Benefits of Membership

Vision. Enhancing pedagogy and discipline-based knowledge in biochemistry and molecular biology through international collaboration.

The IUBMB is committed to improving education in biochemistry and molecular biology at all levels. The IUBMB Committee on Education and Training provides sponsorship for a range of activities which contribute to this goal. The Committee considers applications from all IUBMB Adhering Bodies and Associated Adhering Bodies. When an activity is to take place at a meeting of one of the Regional Organizations (FAOBMB, FASBMB, FEBS and PABMB), it is often appropriate for the application to be made through that organization.

In addition to funding activities which are organized through these organizations, the Committee on Education and Training takes a lead in organizing specific IUBMB Education Workshops around themes which are seen to be of strategic importance for BMB education. Prior advice about these initiatives and their outcomes will be widely disseminated through this website and through IUBMB social media channels.

Providing opportunities for the next generation of biochemists and molecular biologists is a primary mission of the IUBMB. In addition to specific Education initiatives described below, the IUBMB supports trainees through Research Fellowships such as the Wood-Whelan and Mid-Career Fellowships, and by providing funds to Focused Meetings to be used for travel awards to trainees.

IUBMB Programs. The wide range of programs available to scientists resident in IUBMB member countries, include:

Congresses. are held triennially in countries that are members of the Union and have a record of being outstanding and memorable scientific events for the world community of biochemists and molecular biologists.

Focused Meetings. replaced Conferences and Symposia in 2017. Up to 3 per year will be sponsored to a maximum of US\$30,000 each.

Young Scientists' Programs. are competitive awards covering travel, accommodation and meals for participation in the YSP held in conjunction with Congresses and Focused Meetings.

Advanced Schools. provide advanced training of PhD students and young postdoctoral fellows in the field of biochemistry, molecular biology and cell biology. This competitive funding covers support for the school related to travel, accommodation and meals for successful applicants.

Educational Activities. The IUBMB is involved in a broad range of educational programs. The Union holds or sponsors symposia on education at regional biochemical meetings around the world.

It also cooperates with the editors of the journal *Biochemistry and Molecular Biology Education* in identifying timely topics for presentation at symposia and workshops.

Tang Education Fellowships. The IUBMB Tang Education Fellowships provide opportunities for the development of both biochemistry and molecular biology educational programs and educators with the specific aims of: increasing expertise and capability in biochemistry and molecular biology education, supporting engaged educators, promoting change/innovation in approaches to education, improving student learning experiences, outcomes, and engagement with biochemistry and molecular biology, building an evidence base on which to make future recommendations on biochemistry and molecular biology education and supporting biochemistry and molecular biology education in developing countries.

Wood-Whelan Research Fellowships. are competitive awards covering travel, incidental costs and living expenses for visits of 1-4 months to other laboratories in the IUBMB region for the purpose of carrying out experiments that require special techniques or for other forms of scientific collaboration or advanced training.

Mid-Career Research Fellowships. were established in response to an increased demand for further training of mid-career biochemists in the Developing World. These are short-term Fellowships (1-2 months), covering travel and incidental costs to a maximum of US\$5,000, to enable researchers to work in an established laboratory to learn state-of-the-art techniques that are not readily available in their own countries.

PROLAB Fellowships. This collaboration between the IUBMB, PABMB, and ASBMB allows Latin American graduate students and postdoctoral fellows to spend short stays (1-6 months) in the laboratory of a scientist affiliated with ASBMB, in order to develop part of his/her thesis research work.

Travel Fellowships. are available for young scientists in or from developing countries who wish to attend the Miami Winter Symposium.

MilliporeSigma Virtual Meeting Fellowships. This collaboration between IUBMB and MilliporeSigma provides support to trainees to attend virtual meetings in the IUBMB region.

Trans-Continental Youth Travel Fellowships. This collaborative activity between the IUBMB and the Federation of European Biochemical Societies (FEBS) provides trans-continental Youth Travel Fellowships to FEBS Advanced Courses and is financed by IUBMB.

IUBMB Programs and Benefits of Membership

Vision. Enhancing pedagogy and discipline-based knowledge in biochemistry and molecular biology through international collaboration.

Plenary and Jubilee Lectures. At IUBMB Congresses, several endowed lectures feature prominently in the program: IUBMB, Osamu Hayaishi, Chester Beattie, IUBMB Life, Feodor Lynen, Severo Ochoa, EC Slater and Edward Wood Lectures. In addition, IUBMB Jubilee and Special Lectures are intended as Plenary Lectures at scientific meetings, in particular of the smaller Adhering Bodies or Associate Adhering Bodies for which the budget would normally allow only for local speakers.

FEBS-IUBMB Events. This collaboration between IUBMB and FEBS provides financial support for invited speakers at FEBS Advanced Lecture Courses, FEBS Workshops and FEBS Special Meetings. Up to 10 invited speakers are supported per annum (up to US\$2,000 each) from outside Europe.

IUBMB Publications. Trends in Biochemical Sciences, IUBMB Life, Biochemistry and Molecular Biology Education (BAMBE), Biotechnology and Applied Biochemistry, Molecular Aspects of Medicine, BioFactors. In addition, the following books/pamphlets are produced by IUBMB: Wiley-IUBMB Book Series, Standards for Doctoral Degrees in the Molecular Biosciences, and Metabolic Pathways Maps and Animated Maps (Animaps) prepared by the late Don Nicholson, University of Leeds.

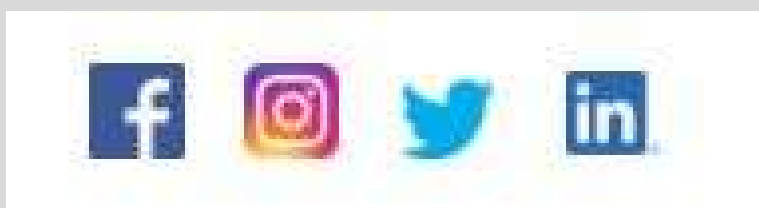
Biochemical Nomenclature. The International Union of Pure and Applied Chemistry (IUPAC) and the IUBMB have established the IUPAC-IUBMB Joint Commission on Biochemical Nomenclature (JCBN) and the Nomenclature Committee of the International Union of Biochemistry and Molecular Biology (NC-IUBMB).

In order to maintain and enhance these programs, IUBMB depends on the financial support of its Adhering Bodies. It is important to note that the annual dues have not been increased for many years. Rather, the Executive Committee has preferred to pursue additional sources of income. Publications represent the major source of income for IUBMB but, with the rapid changes occurring in the publication business, particularly with the advent of open access publishing, maintenance of this income at current levels is challenging. The Executive Committee is continuously working hard to develop alternative funding sources, but the Union is still very dependent on the support of its Adhering Bodies.

Adhering Body status in the IUBMB is an investment rather than an expense. The direct financial benefits from membership in the IUBMB surpass the actual cost, and there are many other associated non-monetary benefits. Finally, it is also important to note that IUBMB is an international organization that, in addition to providing opportunities to all member countries, emphasizes programs that support young scientists, particularly from developing countries. The Union's philosophy has always been that rich countries can afford to contribute more than poorer countries to this end. Of course, situations change over time and one of the roles of the Executive Committee is to keep track of such changes and, for example, encourage emerging economies to contribute in proportion to their capacity, and to recruit new members to the Union. The IUBMB is strongly committed to diversity and opposes any type of discrimination.

More details about the extensive list of IUBMB programs can be found on the Union's website: www.iubmb.org

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**Member for
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**Member for
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(from left to right) **Andrew H.-J. Wang, Francesco Bonomi, Alexandra Newton, Ilona Concha Grabinger, Janet Macaulay, Zengyi Chang, Joan J. Guinovart**