

# **IUBMB NEWS**

Issue 7 June 2019



## President's Message

IUBMB new Executive Council team was elected in the IUBMB General Assembly held in Seoul, S. Korea in June last year during the IUBMB Congress. The new team officially moved into actions since January 1, 2019. The first EC meeting was held in January this year in Miami in conjunction with the 2019 Miami Winter Symposium on "Evolving Concepts in HIV and Emerging Viral Infections". Some of the EC members met for the first time in person and I am pleased to see that we were all very enthusi-

astic about our new duties and looked forward to serving our union together.

First I would like to thank our previous General Secretary Michael Walsh in starting the IUBMB Newsletter project and the current GS Jim Davie in continuing this fantastic endeavor. This newsletter is the 7<sup>th</sup> in its series. The readers will find that our newsletters contain rich information about the activities associated with IUBMB and its regional federations. In my message here, I only outline a few of the activities and some thoughts about the roles of IUBMB could play for the society.

With the strong support of our President-elect, Professor Alexandra Newton, we initiated a new social media program. You can now follow us in Facebook, Instagram and Twitter on many exciting events in the IUBMB community. We hope these social media outreach platforms will attract young scientists and general public to know more about the importance and contributions of molecular bioscience to the society.

An interesting development is that we collaborate with a graduate student, Briana Bibel from the Cold Spring Harbor Laboratories, to use her communication tools to promote biochemistry and molecular biology. We invited her as an IUBMB Student Ambassador and we look forward to a successful new experiment. Please follow the developments on IUBMB website and give her a thumb up!

During the Miami EC meeting, we held an extensive meeting with Wiley publisher, our IUBMB journals principal publisher. Julia Kostova, Executive Editor from Wiley, later provided us with the 2018 Publisher's report for the IUBMB journals. I am pleased to say that our journals preformed well in many key metrics of success, including circulation, readership, citation, time to publication, article output, and marketing uptake. I appreciate all the great efforts of our Editors-in-Chief, editors, editorial advisory boards to make our journals successful. Certainly there are always room to improve and we will work hard to make our journals better. Moreover the Open Access policy is looming over the publication domain and we need to find ways to work with our publishers so we can provide scientists ample room to develop. I encourage our members to submit your excellent papers to our journals. Any suggestions or comments from you are all very welcome.

An important mission of IUBMB is to support various conferences and meetings to disseminate scientific advancements in our field among us. Our next triennial IUBMB Congress will be held in Lisbon, Portugal in collaboration with FEBS in 2021. The planning is underway with the close supervision from IUBMB and FEBS.

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There are two major conferences in FAOBMB region this year. The FAOBMB Conference will be held in Kula Lumpur, Malaysia with the theme of 'Biomolecules: N9etworks and Systems". For celebrating Malaysian Society of Biochemistry and Molecular Biology (MSBMB) to becoming an Adhering Body Member of IUBMB, IUBMB provided additional funding support for this conference in addition to the usual support for YSP Fellowships. Similarly there will be a special education conference to be held in Manila, Philippines supported by IUBMB. We hope such education conferences will bring together new ideas on BMB teaching and research in order to keep young talents interested in our disciplines.

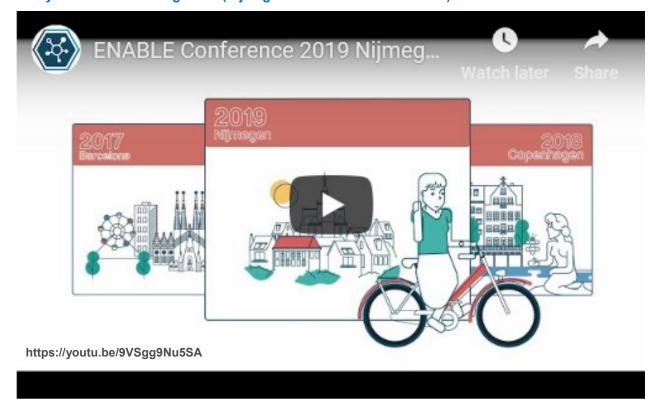
IUBMB Focused Meetings were installed in 2017 to replace the IUBMB Conferences, which have become attractive programs for many BMB societies around the world to apply. The success of the Focused Meetings is reflected in the huge increase of applications (14) for the three slots for 2020, a very competitive program. We also provide additional funding support if the organizers agree to work with the Special Issue Editor to prepare a Special Issue on the topics of the Focused Meeting for a suitable IUBMB journal. In fact, several special issues are under preparations. We believe this way we can attract excellent articles and also promote IUBMB journals at the same time.

There are a number of issues to be noted. In IUBMB, there are a few organization units (committees, boards, etc.) which have been set up many years ago and have become dormant in the past decade. For example, we have a Committee on Biotechnology which may be a useful platform to tackle entrepreneur training for young scientists. Perhaps we can draw supports from pharmas and biotech companies to work with IUBMB in such a direction? There are other similar dormant activities could be rejuvenated.

Finally, whereas we believe there are many benefits of becoming an Adhering Body of IUBMB, various situations hinder this from happening for some countries. Most obviously is the financial situation of the member societies, perhaps due to the decreasing number of members in their societies or the lack of funding support from their government. An example of an awkward situation happened when the ENABLE 2019 was held in the Netherlands this year. IUBMB could not contribute to this event because the Netherlands is no longer an Adhering Member of IUBMB. I hope we will find some ways to invite some of lost members back to IUBMB family.

Andrew H.J. Wang, PhD President, IUBMB

ENABLE (European Academy for Biomedical Science) Conference: Next-generation life scientists: Side by side to break new ground (Nijmegen 13<sup>th</sup>- 15<sup>th</sup> November 2019)



Three Travel Fellowships for eligible applicants from non-FEBS regions (FASBMB, PABMB and FAOBM) are available

## **ENABLE 2018: The Promise of Future Medicine: from Research to Therapy**

The second European PhD and postdoc symposium ENA-BLE, hosted on 7th-9th of November in Copenhagen, was a huge success, with 162 young researchers participating from 21 countries within and outside of the EU. The ENA-BLE 2018 event was split into three parts: outreach events, a dedicated career day and the scientific symposium. The sponsorship of the ENABLE conference allowed support of a total of 50 travel grants.

#### **OUTREACH**

As part of the scope of the grant from the European Union, the ENABLE symposium was preceded in the same week with outreach events at all levels. ENABLE under the lead of this year's host, the Novo Nordisk Foundation Center for Protein Research (CPR) at the University of Copenhagen, organised a cross-disciplinary event (Truth in the Age of Information), an Ask-the-Scientist session (about organ donation and research), and "Listen, Think & Drink" scientific microtalk events at four Copenhagen bars.

Both the "Truth in the Age of Information" and the "Ask the Scientist" events were fully booked in advance with people on waiting lists. The "Truth in the Age of Information" discussion was centered around scientific dilemmas in the world of academia, including replication of results, misconduct of research and science communication to society. A strong example of the latter being the misguided association between HPV vaccination and POTS (postural orthostatic tachycardia syndrome), or chronic tiredness syndrome. Emotions were high when organ donation and how we should handle talking about death was discussed at the Ask-the-Scientist event. The audience was heavily involved in the discussion asking questions to the panel and giving personal accounts on the topic.

#### **CAREER DAY**

The aim of the career day was to provide chances for careers in science outside of the academic landscape. This was achieved through workshops on soft skills, career chats with non-academic science professionals, and an opportunity fair.

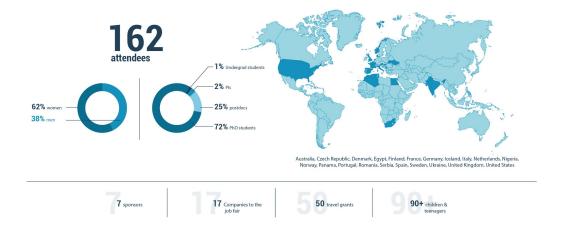
Career Chats overcome the classical format of career development roundtables providing a more direct interaction between PhD and Postdocs and professionals that hold a PhD but moved beyond academic research. Each session lasted 30 min and involved 8-12 participants who had the opportunity to interact with and ask questions to the professionals participating in that session. At the end of the allotted time, participants were able to move on to another Career Chat with a different professional.

#### **SCIENTIFIC SYMPOSIUM**

The scientific part of the symposium, entitled: "The Promise of Future Medicine: From Research to Therapy", featured 8 keynote speakers from different fields of research such as drug discovery, gene therapy, systems vaccinology, infectious diseases and proteomics. In addition, young scientists could present their latest work during the symposium through short talks or poster sessions with the chance to win nice prizes.

#### **VISITS BY SCHOOL PUPILS**

Primary and high school children were also invited to CPR to get to know a little more about research. For the 3rd grade students, a team of volunteers from CPR and the Faculty of Health and Medical Sciences gave the curious and excited 8-9 year olds an insight into what this thing called DNA is and what it can be used for – for example to see if a patient has a mutation causing his/her disease.





Enable group picture



Career chat session



Outreach event for 3rd grade students

## Miami Winter Symposium 2019

The 52<sup>nd</sup> Miami Winter Symposium (MWS) was held during January 27-30 on the topic of Evolving Concepts in HIV and Emerging Viral Infections. The symposium showcased an international line-up of 25 renowned speakers who have made a mark in this field. The goal of this distinctive and outstanding symposium was to provide the most current knowledge of relevant topics: the face of HIV/AIDS today, immune mechanisms and interventions, HIV reservoirs and cure strategies, HIV antibodies for prevention and treatment, the opioid crisis and its intersection with HIV, emerging infections and therapeutic advances. The IUBMB sponsored 19 travel fellows, from Nigeria, Canada, South Africa, China, India, Sudan, Egypt, Gabon, Argentina, and Uganda, who all presented posters and were identified by red rosettes bearing the IUBMB logo. They were among the 305 attendees. Among the awardees was Dr Robert Gallo (University of Maryland School of Medicine, USA) who delivered the Feodor Lynen Lecture on "HIV/AIDS: Lessons from the past; prospects for the future" and Dr Raymond Schinazi (Emory University, USA) who delivered the IUBMB Jubilee Lecture on "Disruptive Discoveries for HIV, HCV and HBV Infections".

The Miami Winter Symposia have been running for 51 consecutive years and have a rich history. Each meeting takes as its theme a topic of current research and/or clinical interest, and aims to broadly cover both basic research, translational issues and potential or actual clinical applications.

The 2020 Miami Winter Symposium on "Molecular Mechanisms Linking the Microbiome and Human Health" will take place on January 26-29, 2020. For further information, please go to: www.miamiwintersymposium.com.



Joan Guinovart presents the Lynen Medal to Robert Gallo



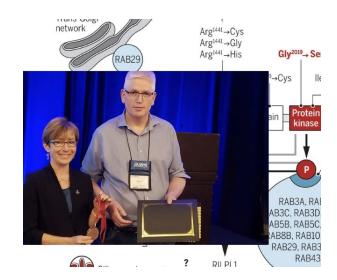
Ilona Concha presents the IUBMB Medal to Raymond Schinazi

llona Concha and Travel Fellowship awardee Bartholomew Ibeh from Nigeria



## **ASBMB Special Symposia Series**

The ASBMB Special Symposium entitled "The Many Faces of Kinases and Pseudokinases" was held December 9-12, 2019 in San Diego, California. The main themes of this meeting are: the non-catalytic functions of kinases and pseudokinases and applying these functions in allosteric drug targeting. Among the awardees was Dr Dario Alessi (MRC Protein Phosphorylation and Ubiquitylation Unit, University of Dundee, Dundee, Scotland) who delivered the IUBMB Jubilee Lecture on "Regulation and Function of the LRRK2 Parkinson's Kinase".



Alexandra Newton presents the IUBMB Medal to Dario Alessi

#### CONGRATULATIONS TO WILLIAM WHELAN UPON HIS RETIREMENT

William (Bill) Joseph Whelan was born on November 14, 1924 in Salford, Lancashire, England, the oldest of the four children of William Joseph and Antoinette Whelan. Despite the hardships of the Depression and the marginal means of the family, education was prized and the young William, with the support of a partial scholarship, was able to attend a grammar school. An inspiring teacher kindled an interest in organic chemistry and Whelan was awarded a scholarship sponsored by the Brewers' Society at the University of Birmingham, which had at the time one of only two Departments of Industrial Fermentation (later, biochemistry) in the United Kingdom. A series of seeming happenstances led to productive studies in the new field of polysaccharide biochemistry and to B.Sc., Ph.D. and D.Sc. (1955) degrees at Birmingham, while Whelan was holding faculty positions there and at the University College of North Wales. There followed increasingly senior appointments at the University of London, first at its Lister Institute (1956) and later (1964) at the Royal Free Hospital as Professor and Head of its newly formed Department of Biochemistry, a discipline that was then becoming differentiated from physiology and pharmacology. Whelan and his group carried out studies that changed the course of polysaccharide chemistry and biochemistry and later elucidating the mechanisms for their synthesis and degradation.

In 1967, Whelan was persuaded to accept an appointment as Chairman (until 1991) and Professor of Biochemistry at the very young University of Miami School of Medicine. Over the next three decades and more in Miami, he was one of the most influential figures in shaping the course of the School. Among his contributions were leadership roles in faculty development and governance and in fostering stronger ties between the School and its parent University. In 1971, together with colleagues in the Department of Medicine, he was instrumental in establishing an innovative and very successful program aimed at addressing the shortage of physicians by providing an accelerated curriculum making it possible for Ph.D.'s to receive the M.D. degree in two years. He understood the importance of enhancing the School's academic structure and did so through his own research accomplishment s and by willingly and very effectively undertaking leadership positions in international scientific organizations and publications. In 1968 he founded the Miami Winter Symposia.

Whelan has served as Secretary General (1973-1983) and President (1997-2000) of the IUBMB, helped to found seven

biochemical journals and served as the first editor-in-chief of three of them. Despite these responsibilities, Whelan and his group carried out landmark research in elucidating the novel role of an enzyme, glycogenin, which was isolated by them and shown to be the primer protein for the biosynthesis of muscle glycogen.

Whelan has received the University of Miami James Mclamore Outstanding Service Award and in 2006 he received the Senate's Distinguished Faculty Scholar Award. The honors accorded him over the years include special recognitions by biochemical societies in the United Kingdom, Germany, Spain and Japan and an honorary D.Sc. from La Trobe University (Australia). He has received the FEBS Millennium Medal, Ciba Medal and special membership in the International Union of Biochemistry and Molecular Biology. Perhaps most distinguished among his honors is election as a Fellow of the Royal Society (founded in 1661 "to improve Natural Knowledge"), the premier recognition of scientific accomplishment in the United Kingdom.

For all who have had the pleasure to meet William Whelan appreciate what a remarkable person he is.



#### WELCOME DR FRANCIS AMARA, IUBMB AMBASSADOR FOR AFRICA

It is an honor for me to serve as the newly appointed Ambassador of the IUBMB to the Federation of African Societies of Biochemistry & Molecular Biology (FASBMB).

I am originally from Sierra Leone, West Africa. After completing my BSc (Hons) Medical Laboratory Sciences and Ph.D. Biomedical Sciences at the University of Ulster, Northern Ireland, I pursued postdoctoral studies in Sweden, and Canada. I immigrated to Canada in 1990, and I am a tenured-full professor in the Department of Biochemistry & Medical Genetics, University of Manitoba, Canada, where I am the Chair, Education Committee.

I am looking forward to working closely with Professor Fares, President of the FASBMB, to position Africa in benefiting from the expertise and global outreach opportunities offered by the cadre of volunteers of the IUBMB. These volunteers can travel to Africa to develop and teach courses, and promote research, thereby building human capacity. Moving forward, my first priority is to embark on a recruitment drive for National Societies of Biochemistry and Molecular Biology in Africa to join the IUBMB as Associate adhering bodies. In the long term, my goals are for the IUBMB to enhance career aspirations of young biochemists and molecular biologists by promoting Biotechnology in sub-Sahara Africa.

My first trip to Africa, as IUBMB ambassador, is back to my homeland of Sierra Leone. While in Sierra Leone, I will introduce and highlight the role of the IUBMB to the Ministry of Higher and Technical Education, and the College of Medicine and Allied Health Sciences. I will also work with them to organize the Sierra Leone Society for Molecular Biosciences.

Francis Amara, PhD, MEd, FHEA (UK) IUBMB Ambassador for Africa





Teacher training on the Foldscope microscope



Traveling in Sierra Leone

#### WELCOME BRIANNA BIBEL, IUBMB STUDENT AMBASSADOR



I am a PhD candidate at Cold Spring Harbor Laboratory's Watson School of Biological Sciences, using structural biological, biochemical, and biophysical techniques to study mechanisms regulating mRNA in the Leemor Joshua-Tor lab. I graduated sum-

ma cum laude from St. Mary's College of California with a BS in Biology, where I worked for 2 years as a research assistant performing biochemical research on the neuropeptidase-proccessing enzyme neurolysin. I previously worked as a stockroom assistant for my college's chemistry department. I received a grant from the Huntington's Disease of America (HDSA) to work in Dr. Steve Finkbeiner's lab at UCSF's Gladstone Institute of Neurological Disease. My interests include structural biology and biochemistry. I am enthusiastic about STEM outreach and science communication.

I have a website, http://www.thebumblingbiochemist.com/, where I use my alter ego, "The Bumbling Biochemist" to introduce people to biochemical concepts and experiments and explain how they work in entertaining ways.

When I entered college, I quickly became immersed in the world of science; terms like "buffer" and "nucleotides" became part of my vocabulary, right alongside "buffoon" and "nuggets." But when I excitedly tried to explain my work to my family, I was met by blank faces. They don't have science backgrounds, and the language that had become second nature to me was foreign to them. Determined to share with them, and anyone who would listen, the wonders of biochemistry, I decided to take a more fun approach. I put a lab coat on as a cape, transformed into "The Bumbling Biochemist," and started taking people (through social media and a blog) on journeys through life in the lab. Instead of dry formulaic protocols, experiments became "missions," with each step a quest to learn both the "hows" and the "whys." My own "mission" is to become a biochemistry professor at a primarily-undergraduate institution where I can take students on these journeys "up close," working with them hands-on in the lab and helping them experience the aha! moments that make me love science.

Brianna Bibel, PhD Candidate and WiSE Social Media Chair at Cold Spring Harbor Laboratory IUBMB Student Ambassador



Visit us on Instagram and on Twitter.



Biochemistry & Molecular Biology (MSBMB)

## 27th FAOBMB Conference & International Meeting-44th MSBMB Conference

Plus IUBMB Special Symposia

19-22 August 2019

Berjaya Times Square Hotel, Kuala Lumpur, Malaysia









**Young Scientist Programme** 15-17 August 2019

Important Dates: Early Bird Registration deadline 31st May 2019 Abstract Submission deadline 31st May 2019

Check out our website for pre-& post-conference workshops

## Symposia Topics

- Molecular Parasitology
- Genetics
- · Parasitic Diseases
- Metabolic Diseases
- . Lipid and Membrane Biology
- Viral Diseases
- Systems Biology
- . Epigenetics and Stem Cell Biology . Cancer
- + Protein Structure, Function & Dynamics
- Drug Discovery and Natural **Products**
- Neuronal Disorders
- Bioinformatics
- Immunology
- Molecular Medicine
- · Mechanisms of Drug Resistance
- · Agricultural Biochemistry
- Biochemistry
- Clinical Biochemistry

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#### **IUBMB Programs and Benefits of Membership**

IUBMB provides a wide range of programs available to scientists resident in IUBMB member countries, including:

**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\$60,000 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. These competitive awards cover travel, accommodation and meals for successful applicants.

Educational Activities. The IUBMB is involved in a broad range of educational programs. The Union distributes biochemistry textbooks and review journals without charge to scientists and teachers in developing areas, and 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.

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.

**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.

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 Letures 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 Speakers.** 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 (BAMBEd), 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.

More details about the extensive list of IUBMB programs can be found on the Union's website: <a href="https://www.iubmb.org">www.iubmb.org</a>

#### **NEW LOOK FOR THE IUBMB JOURNALS!**

We are excited to highlight new research from the IUBMB Journals: IUBMB Life, BioFactors, Biotechnology and Applied Biochemistry, and Biochemistry and Molecular Biology Education.

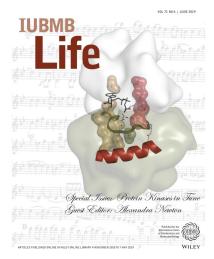
Please also consider submitting your own research to the IUBMB Journals. You can expect to work with distinguished Editorial Board members and benefit from worldwide circulation and readership through our publishing partnership with Wiley. For more information about the journal and submissions, feel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

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

## Project DEAL: Big News about the IUBMB Journals in Germany

Our publisher Wiley has signed an agreement with Projekt DEAL, a consortium of over 700 German institutions. A recent press release is here. These institutions now have full access to journals published by Wiley, including the IUBMB journals. Further, the partnership enables authors at participating German institutions to publish open access at no cost to them in the IUBMB journals; payment of the associated Article Publication Charge (APC) would be covered in full via the partnership. Authors will not need to cover the APCs from their own pockets.

This is an incredible opportunity for the IUBMB journals to publish quality research from Germany, while also benefitting authors looking to make their research available open access. To take advantage of this, please spread the word and encourage your German colleagues to submit to the IUBMB journals.



#### **IUBMB** Life

#### **Special Issue**

#### **Protein Kinases in Tune** Editorial by Alexandra Newton

<u>Evolution of a Dynamic Molecular Switch</u> Critical Review by Susan Taylor, Hiruy Meharena and Alexandr Kornev

<u>Tuning the "Violin" of Protein Kinases: the Role of Dynamics-based Allostery</u> Critical Review by Lalima Ahuja, Susan Taylor and Alexandr Kornev

More Than the Sum of the Parts: Towards Full-Length Receptor Tyrosine Kinase Structures Critical Review by Devan Diwanji, Tarjani Thaker and Natalia Jura

The Significant Others: Global Search for Direct Kinase Substrates Critical Review by Kavita Shah and Hyunjin Kim

## **BioFactors**

IN THIS ISSUE:

#### **BioFactors**

Early detection of cervical cancer based on high-risk HPV DNA based genosensors: A systematic review Review article by Pegah Mahmoodi, Mona Fani, Majid Rezayi, Amir Avan, Zahra Pasdar, Ehsan Karimi, Iraj S. Amiri, and Majid Ghayour-Mobarhan

Glutathione compartmentalization and its role in glutathionylation and other regulatory processes of cellular pathways Review article by Andrea Scirè, Laura Cianfruglia, Cristina Minnelli, Desirée Bartolini, Pierangelo Torquato, Giovanni Principato, Francesco Galli, and Tatiana Armeni

Chronic alcohol exposure induced gut microbiota dysbiosis and its correlations with neuropsychic behaviors and brain BDNF/Gabra1 changes in mice Article by Zheng Xu, Can Wang, Xiaoguang Dong Tao Hu, Lingling Wang, Wenbo Zhao, Shaowei Zhu, Guibao Li, Yanlai Hu, Qing Gao, Jiale Wan, Zengxun Liu, and Jinhao Sun

Mid □ region parathyroid hormone □ related protein is a genome-wide chromatin □ binding factor that promotes growth and differentiation of HB2 epithelial cells from the human breast Research Communication by Claudio Luparello, Mariangela Librizzi, Dalia M. L. Asaro, Ilenia Cruciata, and Fabio Caradonna

#### Biotechnology and Applied Biochemistry

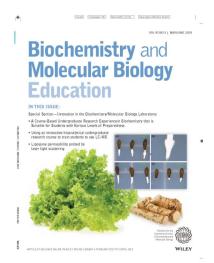
Effects of multicopper oxidase orientation in multi-walled carbon nanotube biocathodes on direct electron transfer Article by Eiichiro Takamura, Takuto Nakamura, Hiroaki Sakamoto, Takenori Satomura, Haruhiko Sakuraba, Toshihisa Ohshima, and Shin-ichiro Suye

Identification of the first Crocodylus siamensis cathelicidin gene and RN15 peptide derived from cathelin domain exhibit antibacterial activity Article by Anupong Tankrathok, Arpaporn Punpad, Monrudee Kongchaiyapoom, Sirinthip Sosiangdi, Nisachon Jangpromma, Sakda Daduang, and Sompong Klaynongsruang

Antioxidant and reactive oxygen species scavenging properties of cellular albumin in HepG2 cells is mediated by glutathione redox system Article by Ali Seidkhani-Nahal, Abdolamir Allameh, and Masoud Soleimani

Bioconversion of Lignin and Its Derivatives into Polyhydroxyalkanoates: Challenges and Opportunities Mini-review by Prasun Kumar, Anoth Maharjan, Hang-





### Biochemistry and Molecular Biology Education

### Special section

<u>Innovation in the Biochemistry/Molecular Biology Laboratory</u> Commentary by Adele J. Wolfson and Rodney Boyer

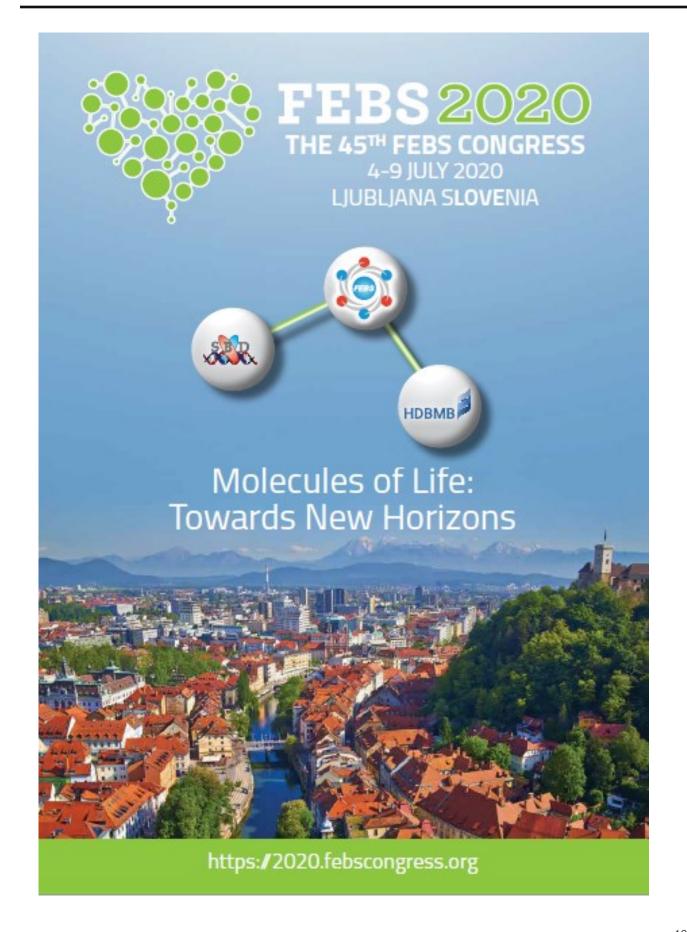
A Course-Based Undergraduate Research Experience in Biochemistry that is Suitable for Students with Various Levels of Preparedness Article by Shameka J. Shelby

<u>Using an innovative bioanalytical undergraduate research course to train students to use LC-MS</u> Article by Aysha Alneyadi, Iltaf Shah, and Syed Salman Ashraf

<u>Liposome permeability probed by laser light scattering</u> Article by Todd P. Silverstein and J. Charles Williamson

#### SUBMIT YOUR MANUSCRIPT TO ONE OF THE SPECIAL ISSUES.

Submit by October 30, 2019 to the <u>Special Issue on Synthetic and Engineered Enzymes for Biocatalysis and Biotransformation</u> guest edited by Shangxian Xie and Xin Wang.

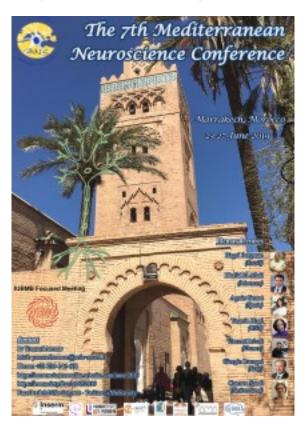




IUBMB Focused Meeting "Tissue Homeostasis in Health and Disease - The 2019 Champalimaud Symposium"

Lisbon, Portugal October 8-11, 2019

Contact: Dr. Henrique Veiga-Fernandes (<u>preaward.osp@research.fchampalimaud.org</u>)



IUBMB Focused Meeting "The 7th Mediterranean Neuroscience Conference"

Marrakech, Morocco June 23-27, 2019

Contact: Dr. Youssef Anouar (<a href="mailto:youssef.anouar@univ-rouen.fr">youssef.anouar@univ-rouen.fr</a>) visit: <a href="https://neurosciencemedite.wixsite.com/mns-2019">https://neurosciencemedite.wixsite.com/mns-2019</a>



IUBMB Focused Meeting "Inhibitors of Protein Kinases. Kinase Inhibitors in Target Biology and Disease"

Warsaw, Poland September 14-18, 2019

Contact: Prof. Jaroslaw Poznanski (jarek@jbb.waw.pl)

## **Advanced Schools 2019**

Title: The New Microbiology

Spetses Hotel, Spetses Island, Greece 4-12 September 2019 Place:

Dates:

Contact: Prof. Pascale Cossart, pascale.cossart@pasteur.fr

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