2021 APRIL NEWS

UPCOMING IUBMB DEADLINES

IUBMB is searching for a New Editor-in-Chief

for Biotechnology and Applied Biochemistry, and BioFactors. Send applications to Prof. Zengyi Chang (changzy@pku.edu.cn)

Biochemistry and Molecular Biology Education

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 a journal devoted to the rapid publication of

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

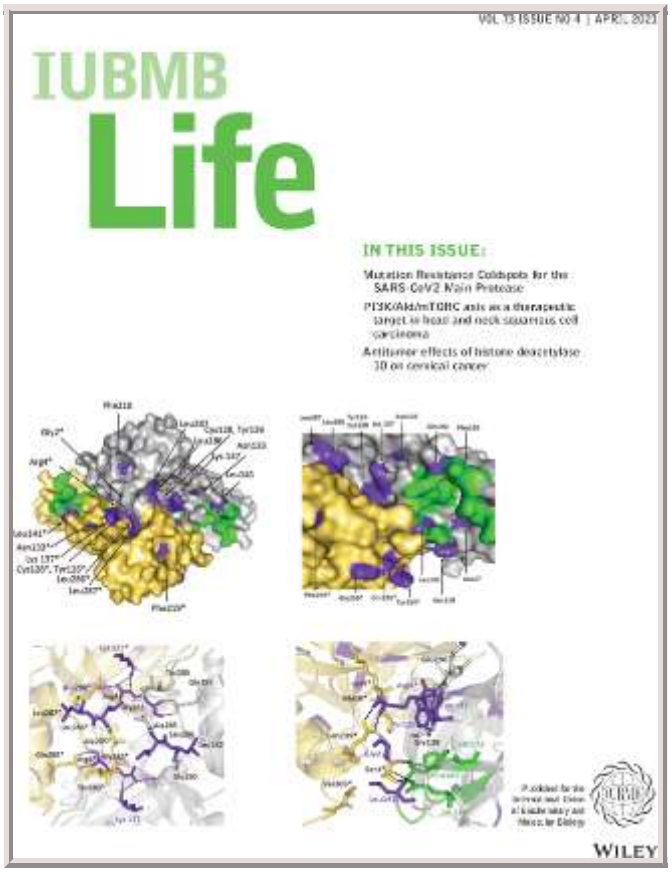
The IUBMB Focused Meetings cover “Cutting edge science” of clear relevance to Biochemistry and Molecular Biology. Click *here* for more information.

IUBMB AWARDS
JUBILEE LECTURES

Deadline June 15

The IUBMB Jubilee Lectures are intended as Plenary Lectures and are recognized for their outstanding contributions to their field as described here.

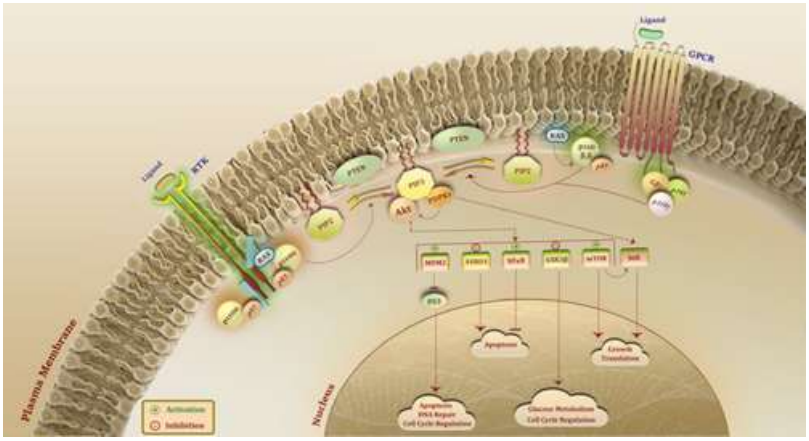
IUBMB JOURNALS



Issue Highlights

- The PI3K/Akt/mTORC signaling axis in head and neck squamous cell carcinoma: Possibilities for therapeutic interventions either as single agents or in combination with conventional therapies

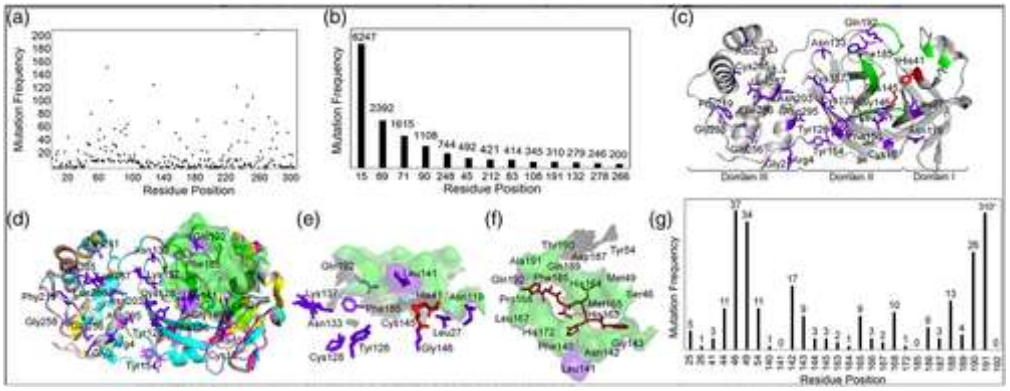
The latest advances in the sequencing methods in head and neck squamous cell carcinoma (HNSCC) tissues have revolutionized our understanding of the disease by taking off the veil from the most frequent genetic alterations in the components of the oncogenic pathways. Among all the identified alterations, aberrancies in the genes attributed to the phosphoinositide 3-kinases (PI3K) axis have attracted special attention as they were altered in more than 90% of the tissues isolated from HNSCC patients. In fact, the association between these aberrancies and the increased risk of cancer metastasis suggested this axis as an “Achilles Heel” of HNSCC, which may be therapeutically targeted. The results of the clinical trials investigating the therapeutic potential of the inhibitors targeting the components of the PI3K axis in the treatment of HNSCC patients, either alone or in a combined-modal strategy, opened a new chapter in the treatment strategy of this malignancy. The present study aimed to review the importance of the PI3K axis in the pathogenesis of HNSCC and also provide a piece of information about the breakthroughs and challenges of PI3K inhibitors in the therapeutic strategies of the disease.



- Identification of mutation resistance coldspots for targeting the SARS-CoV2 main protease

Mutations in the novel coronavirus SARS-CoV2 are the major concern as they might lead to drug/vaccine resistance. In the host cell, the virus largely depends on the main protease (Mpro) to regulate infection hence it is one of the most attractive targets for inhibitor design. However, >19,000 mutations in the Mpro have already been reported. The mutations encompassing 282 amino acid positions and these “hotspots” might change the Mpro structure, activity and

compared the structure-function relationship of these coldspots with several SARS-CoV2 Mpro X-ray crystal structures. We found that three coldspot residues (Leu141, Phe185, and Gln192) help to form the active site, while seven (Gly2, Arg4, Tyr126, Lys137, Leu141, Leu286, and Leu287) contribute to dimer formation that is required for Mpro activity. The surface of the dimer interface is more resistant to mutations compared to the active site. Interestingly, most of the coldspots are found in three clusters and forms conserved patterns when compared with other coronaviruses. Importantly, several conserved coldspots are available on the surface of the active site and at the dimer interface for targeting. The identification and short list of these coldspots offers a new perspective to target the SARS-CoV2 Mpro while avoiding mutationbased drug resistance.



SPECIAL ISSUE CALL FOR PAPERS

See the full list of Calls for papers *here*

NEW VIRTUAL ISSUES

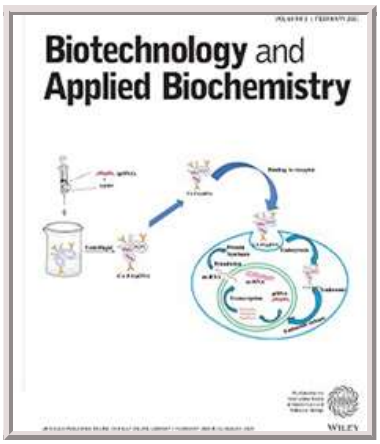
See all the new IUBMB Life Virtual issues *here*

New Issue: Volume 47, Issue 1

Issue Highlights

- Specialized proresolving mediators in infection and lung injury

- Mangiferin and organ fibrosis: A mini review

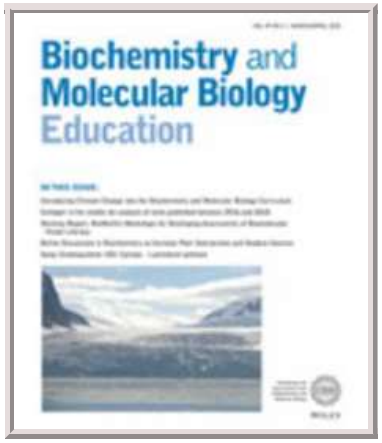


Volume 68, Issue 1

Issue Highlights

- Efficient enzymatic synthesis of cephalexin in suspension aqueous solution system
- Overexpression, overproduction, purification, and characterization of rhGH in *Escherichia coli*

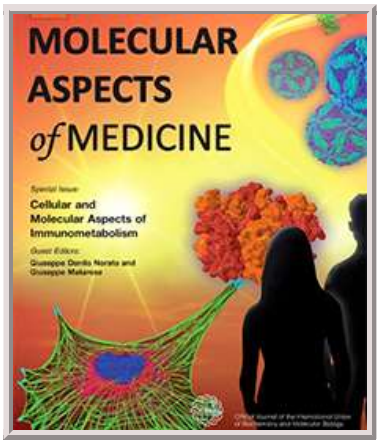
New Virtual Issue on Teaching in the Time of COVID-19



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



Volume 74 (2020) 100894

The Atlas of Inflammation Resolution (AIR)

UPCOMING MEETINGS

**The meeting will be held in Academia Sinica and the foreign speakers will be joined by an pre-recorded video talk and live Q&A. Virtual meeting will be open for overseas only.

APR 21 - 23: Event | Meeting link | *Online poster*

The 2021 ASBMB Annual Meeting, held in conjunction with Experimental Biology, offers unmatched opportunities to showcase your work, learn from other scientists about their latest findings and expand your professional circle.

APR 12: Early Registration Deadline | Register *here* | Meeting link

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We would like to announce a webinar series on **"Innovation in Undergraduate Teaching of Life Sciences"**. This webinar series replaces and complements the "1st Swiss Symposium on Innovation in Undergraduate Teaching of Life Sciences" (cancelled for now because of the pandemic).

Guest Speaker: **Kostas Kampourakis** (University of Geneva, CH);
Going beyond content knowledge: Addressing students' preconceptions to achieve conceptual understanding in undergraduate biology

REGISTRATION IS FREE, for LS2 members and non-members, and for the whole Seminar Series. Only registered participants will receive the zoom link of the webinar.

APR 14 : Event 17:30 hr CET | Register *here*

A joint training event organised by FEBS and the Biochemical Society-UK

This two half day online event is aimed at anyone teaching in higher education in the molecular biosciences, from early career lecturers to established professors. The course aims to share best practice and novel ideas with higher educators, to equip students with the skills they need to succeed in their careers. The event will comprise of lectures, group discussions and flash talk presentations from attendees. 'Evolving molecular bioscience education' is supported by Heads of University Biosciences (HUBS).

We welcome abstracts to be considered as flash talk presentations during the event.

Event registration is free of charge for members of the Biochemical Society and FEBS Constituent Societies. Please note places at this event are limited so we recommend you to book early to avoid disappointment.

APR 15: **Abstract Deadline** | Register *here* | Meeting link

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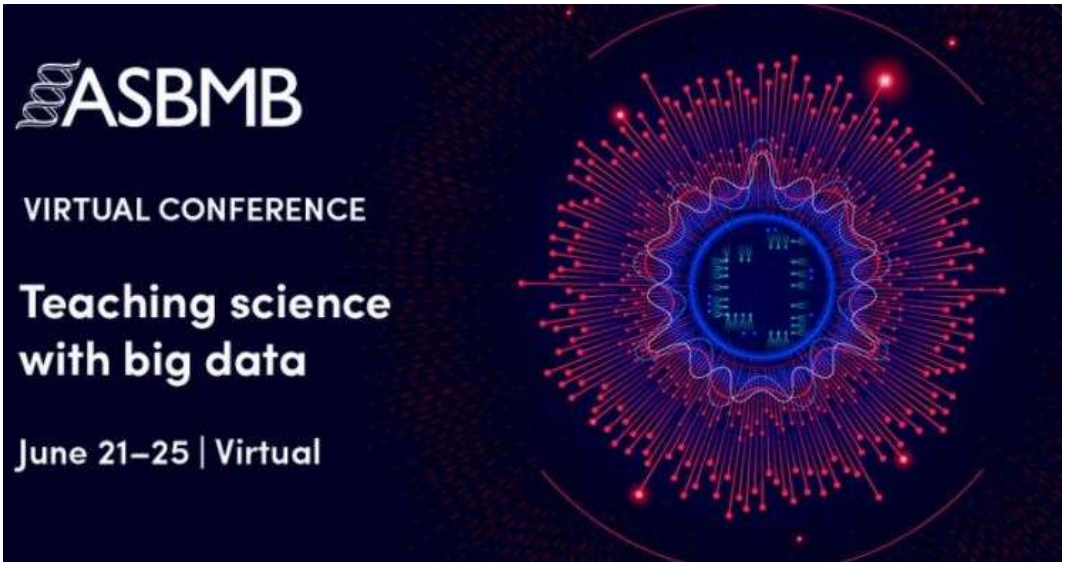


This international meeting guides faculty on how to teach using web-based, free-access large data sets. How big is "big data"? Data that is so large, fast or complex that it's difficult or impossible to process using traditional methods.

Who should register: This workshop is for faculty 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.

Sponsored by the ASBMB and the International Union of Biochemistry and Molecular Biology.

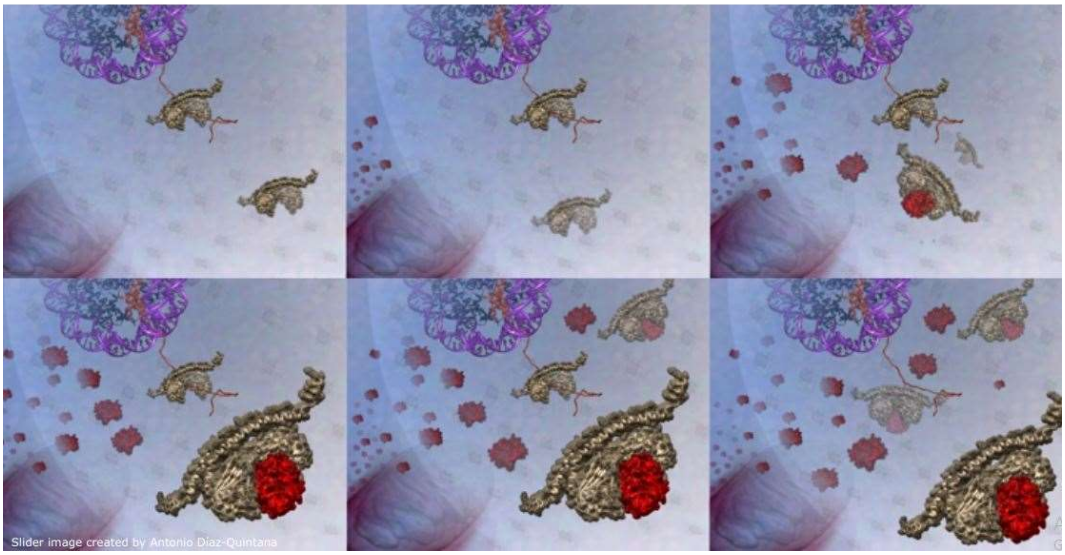
APR 30: Abstract and Registration Deadline | **MAY 21**: Early Registration Deadline
JUN 16: Abstract and Registration Deadline | Meeting link

The 4th European PhD and Postdoc symposium **"EXPLORING LIFE DYNAMICS: In and out of equilibrium"** will be held 12-14th of May 2021.

ENABLE aims to involve young scientists in opening the academic world from within by promoting crosstalk between biomedical disciplines, collaboration with industry, and engagement with society. The symposia are organized by and for young researchers and are inspiring events not to be missed!

MAY 12 - 14: Event | Meeting link

IUBMB Focused Meeting / FEBS Workshop
Crosstalk between Nucleus and Mitochondria in Human Disease
7-10 September 2021 | Sevilla, Spain



Focused Meeting / FEBS Workshop on "Crosstalk between Nucleus and Mitochondria in Human Disease" (*CrossMitoNus*) in Seville, Spain has been postponed to 7-10 September 2021. The event will take place at the Research Scientific Centre Isla de la Cartuja (cicCartuja).

MAY 15: Abstract Submission & Registration Deadline
Meeting link | *Online poster*

Join us at the 45th FEBS Congress for an inspiring exchange of knowledge and ideas from leading experts across the molecular life sciences, and opportunities to present your work. The event will now be virtual!

MAY 17: Regular Registration Deadline
Register *here* | Meeting link

Virtual 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 to cover registration costs.

Apply Now

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