



FEBS News

FEDERATION OF EUROPEAN BIOCHEMICAL SOCIETIES

DECEMBER 2023



48th FEBS CONGRESS

*Mining biochemistry
for human health and well-being*

Federation
of European
Biochemical
Societies



MILANO 29 June - 3 July 2024
Italy | Allianz MiCo - Milano Convention Centre

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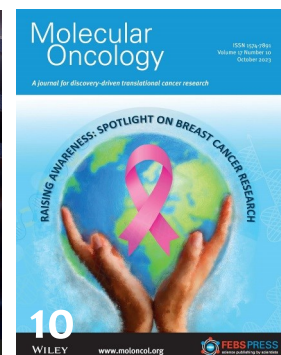
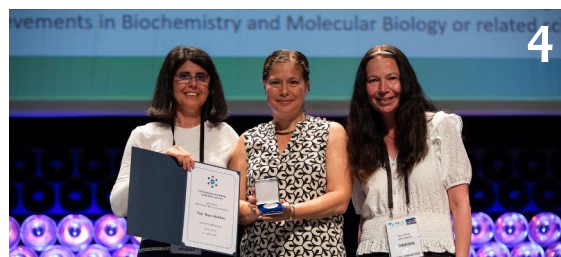
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Cover: Save the dates for the 48th FEBS Congress, in Tours, 29 June – 3 July 2024! The Congress is featured on pages 31–33 of this issue.



About FEBS News: This issue as well as recent past issues of *FEBS News* are available online at www.febs.org. To receive an email when a new *FEBS News* issue is out, simply sign up to the e-newsletter in the [News section](#) of the FEBS website. Questions and suggestions about *FEBS News* should be sent to the *FEBS News* Editor, Carolyn Elliss (elliss@febs.org).

FEBS website postings: FEBS offers free advertising of academic positions (PhD students, postdocs, etc.) in the [Jobs & Positions](#) page of the website, and scientific events can be listed in our [Events Calendar](#). In addition, Constituent Societies of FEBS are able to post news on the [FEBS Network](#) platform.

Federation of European Biochemical Societies (FEBS): www.febs.org

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From the FEBS Secretary General



Prof. De la Rosa at the 47th FEBS Congress, Tours, 2023

After nearly a year in post as FEBS Secretary General, it is rewarding to look back on FEBS activities in 2023 – but also important to make plans for the future.

The year has seen the full range of FEBS programmes in operation to support the molecular life science community, many of which are captured in this issue of *FEBS News*. In particular, it was good to see the successful realization of the 47th FEBS Congress in Tours (pages 4–7), which introduced new ideas, such as a greater collaboration with the FEBS journals, more formalized input from Constituent Societies in speaker considerations, a compact format and some new evening activities – and these will go forward to future Congress plans.

The year has been productive behind the scenes too, with the FEBS Executive Committee (comprising the Chairs of FEBS Committees overseeing different FEBS programmes, and other elected positions) considering strategic needs and directions for the Federation over the next five years. Plans were accepted by the FEBS Council, and we are starting for now by looking at visibility and promotion, collaborations with other organizations, and income diversification. Some of these points are fundamental to the health and growth of FEBS as an organization and thus its ability to continue to provide programmes for scientists and science in the future. Meanwhile, in the background at FEBS Press, publishing developments continue to be embraced, with particular emphasis this year on streamlining peer review (page 8). It is also worth mentioning that our journals will continue to be published with Wiley in the next few years, following negotiation of a new agreement.

Positions on FEBS Committees are elected by the FEBS Council and have fixed terms. As 2023 draws to a close, I would like to thank those stepping down for their various voluntary contributions to FEBS, and I warmly welcome those joining from 1 January 2024 following elections this summer. We are looking forward to many interesting FEBS activities in 2024 (which in fact will be the 60th anniversary of FEBS) and I urge you to take advantage of the various opportunities, from publishing your paper with a FEBS Press journal to attending a scientific meeting. Of note is the 48th FEBS Congress in Milano, hosted by the Italian Society of Biochemistry and Molecular Biology, which will provide a great way to come together with peers and experts to get updated with the bigger picture across the molecular life sciences next summer (pages 31–33). And two new activities in 2024 are a first FEBS Education and Training Conference in Antalya in March organized by our innovative Education Committee (page 14), and the launch of the FEBS Booster Fund for newly independent researchers next spring (page 12). Please do spread the word to your colleagues too!

Miguel A. De la Rosa, FEBS Secretary General

Upcoming FEBS application deadlines

FEBS Congress 2024

Young Scientists' Forum:
7 December 2023

Congress abstracts:
8 March 2024

FEBS Congress bursaries:
8 March 2024

FEBS Congress Mathias Sprinzl scheme:
8 March 2024

2024 FEBS Advanced Courses

See individual event websites

2025 FEBS Advanced Courses proposals

1 March 2024

2024 FEBS Education and Training Conference

Abstracts: 9 February 2024

FEBS Constituent Society 'Science & Society' proposals: 31 December 2023

FEBS Fellowships

Summer Fellowships: 1 April 2024

Short-Term Fellowships, Collaborative Developmental Scholarships and Ukrainian Short-Term Fellowships: applications can be sent throughout the year

FEBS Booster Fund: 1 May 2024

FEBS Excellence Awards: 1 July 2024

The 47th FEBS Congress Tours, 2023

'We made it'. Yes indeed, this could have been the motto of the 47th FEBS Congress (8–12 July 2023) held in Tours, France. Sixteen months of intense efforts gave rise to a great scientific and social event. This FEBS Congress, 'Together in Bioscience for a better future', was atypical in several respects, adopting a novel format that might stand as the archetype of further FEBS Congresses. It resulted from the synergistic action of the host Society SFBBM (the French Society of Biochemistry and Molecular Biology), the FEBS journals' Editors-in-Chief, the FEBS Constituent Societies, FEBS staff, and the PCO MCI-France. Shorter by one day than standard FEBS Congresses, it was held in the Palais des Congrès Vinci (named after Leonardo da Vinci), a splendid realization of the French architect Jean Nouvel in the centre of Tours, right in front of the TGV train station. The easily reached venue, with hotels at a walking distance, and the quiet city of Tours – a city of art, gastronomy and history – all contributed to make happy the about 1100 participants from 65 countries.

The Opening Ceremony was honoured by the presence of the deputy-mayor of the city and the vice-president of the University of Tours, who delivered speeches. Following this official part, two outstanding opening plenary lectures were given, by Karen Vousden (Sir Hans Krebs Lecture) and Eric Westhof (Datta Lecture). These were followed on subsequent days by other remarkable named plenary lectures given by renowned scientists. Before the Closing Ceremony, two talks were devoted to neuroscience: the *FEBS Open Bio* Lecture by Jose Rizo-Rey and the IUBMB Lecture by Nobel Prize winner James Rothman, who taught us with passion the secrets of neurotransmission. All in all, 91 speakers were invited to talk in 11 plenary lectures, 21 symposia and three special sessions. Selected from abstracts, 87 invited scientists presented their data in short (15 min) and speed (3 min) talk sessions. The latter, re-introduced to the FEBS Congress format, were well attended and successful, the presenters having made every effort to be understandable to a broad audience and to keep to time. Lastly, 652 selected posters were on display

over three days in an area spacious enough to allow poster viewing and discussion. During the Closing Ceremony, overall poster prizes were awarded by the FEBS Press journals and *Biochimie*, the SFBBM journal. The Congress app, handy and user-friendly, made it easy to find the locations of the sessions and the posters. Additional interest was provided by a range of exhibitors and sponsors, whose financial support was crucial for the event.

The 47th FEBS Congress brought other innovations that were very much appreciated. Apart from the traditional fundamental biochemistry/molecular biology sessions, subjects dedicated to sustainable development were raised in two sessions: 'Climate change: biochemical CO₂

fixation', and 'Biotech solutions to current problems'. For the first time, two special sessions occurred in the evening, outside the venue. 'Science in the Street' organized by the FEBS Science & Society Committee in the Oceania Hotel near the Palais des Congrès, was attended by 150 people. The event focused on how nutrition and exercise can impact metabolism, health and quality of life. As for the FEBS Education Committee

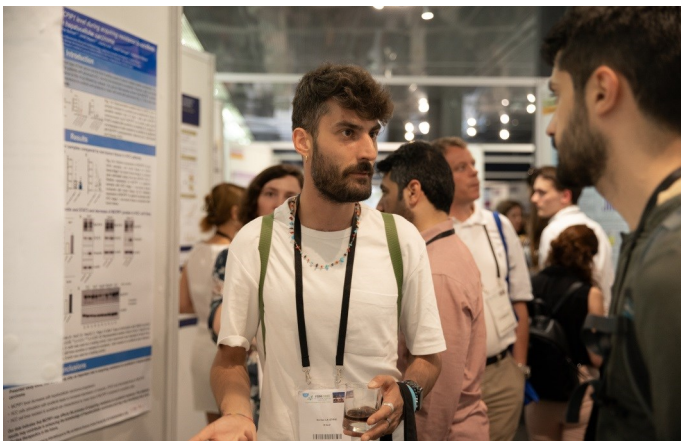
session, named 'FEBS stands up for education: hot topics, music and more,' it was held in a guinguette by the Loire river, attended by about 100 people (many more wished to come but a limit was imposed by the size of the guinguette). In a very friendly atmosphere, current issues were discussed and punctuated by music breaks and songs.

From the feedback received from participants, the 47th FEBS Congress was a remarkable scientific success thanks to the brilliant talks and the extent of scientific knowledge delivered. Participants also highlighted the venue facilities, and enjoyed the French 'art de vivre'. It was good to see many young participants, in addition to those from the Young Scientists' Forum, enjoying the event and eager to learn about scientific subjects that are often outside their field of expertise.

During the Closing Ceremony, the FEBS banner was passed on to the organizers of the 48th FEBS Congress in Milano. I wish it great success as well.

Alain Krol, Chair of the 47th FEBS Congress





(first row) Congress opening; plenary lecturer Karen Vousden (FEBS Sir Hans Krebs Medal recipient), with FEBS Executive Committee members Frank Michelangeli (left) and Janko Kos (right). (second row) Plenary lecturer Maya Schuldiner, centre (FEBS Theodor Bücher Medal recipient), with FEBS Executive Committee members Irene Díaz-Moreno (left) and Beáta Vértessy (right); plenary lecturer Eric Westhof, centre (FEBS Datta Medal recipient), with FEBS Executive Committee members Piotr Laidler (left) and Alain Krol (right). (third and fourth rows) Poster sessions, coffee break and exhibitor interactions.

FEBS Medal Winners (Tours, 2023)

The Sir Hans Krebs Medal, the Theodor Bücher Medal and the Datta Medal are awarded annually by FEBS for outstanding achievements in biochemistry, molecular biology or related areas. This year's awardees – Karen Vousden (London, UK), Maya Schuldiner (Rehovot, Israel) and Eric Westhof (Strasbourg, France) – were honoured at the 47th FEBS Congress, where they each delivered a plenary lecture.



Sir Hans Krebs medal: Karen Vousden

Karen Vousden received her PhD from the University of London, and following postdoctoral fellowships at the Institute of Cancer Research, UK and National Cancer Institute (NCI), USA, she returned to London to establish a research group at the Ludwig Institute. Returning to the USA, she was Chief of the Regulation of Cell Growth Laboratory at the NCI before coming back to the UK to take on the role of Director of the CRUK Beatson Institute in Glasgow. In 2017, she moved her research group to the Francis Crick Institute in London and served as Chief Scientist for Cancer Research UK from 2016 to 2022. Karen's research has made contributions to our understanding of how the tumour suppressor protein p53 is regulated and the functions of p53 that contribute to its ability to control cancer progression. During these studies, her group revealed an unexpected ability of p53 to help cells adapt and survive under transient periods of nutrient starvation. This work led to a more general investigation of cancer cell metabolism, focused on exploring the role of oxidative stress and serine metabolism in cancer development and metastatic progression. Karen is a Fellow of the Royal Society, the Royal Society of Edinburgh, the Academy of Medical Sciences and the European Academy of Sciences. She is a Foreign Associate of the National Academy of Sciences and the American Academy of Arts and Sciences, and a Fellow of the American Association of Cancer Research. Her awards include the Tenovus Gold Medal, the Sir Frederick Gowland Hopkins Medal, the Royal Medal from the Royal Society of Edinburgh, the Mike Price Gold Medal from the EACR, the Clifford Prize for Cancer Research and the Lombroso Award. In 2010 she was appointed a Commander of the British Empire for services to clinical science.

Congress plenary lecture: *Diet, metabolism and cancer progression*



Theodor Bücher medal: Maya Schuldiner

After receiving a PhD in genetics from the Hebrew University in Jerusalem in 2003, **Maya Schuldiner** conducted postdoctoral research in the Laboratory of Jonathan Weissman at the University of California in San Francisco, USA from 2003 until 2008, when she joined the faculty of the Weizmann Institute of Science, Israel. She has been a tenured associate professor since 2015 at the department of Molecular Genetics at the Weizmann Institute of Science and a Full Professor since 2020. Maya serves as a reviewing editor in *eLife* and is a member of the editorial board of *Life Science Alliance*, *Current Opinion in Cell Biology*, *BBA-Molecular Cell Research*, *PLoS Biology* and *Science Open*. Maya received a Human Frontiers Science Program Career Development Award in 2008 and became a member of the EMBO Young Investigator Programme in 2011 and of EMBO in 2017. She received three consecutive European Research Council grants (StG in 2010, CoG in 2015 and in 2020). Maya is also the recipient of the FEBS Anniversary and National prizes (2015, 2017) and the EMBO Gold Medal award (2017). She was elected a member of Leopoldina, the German National Academy of Sciences. Maya currently holds the Dr. Omenn and Martha Darling Professorial Chair in Molecular Genetics. Maya's research focuses on uncovering functions for uncharacterized proteins using the 'baker's yeast' as a central eukaryotic model. She does this by using high content screening approaches coupled with dedicated follow-ups and with an interest on processes that occur inside organelles.

Congress plenary lecture: *Systematic Cell Biology – Using high throughput screens to reveal the unknown unknowns*



Datta medal: Eric Westhof

Eric Westhof is Emeritus Professor of Structural Biochemistry at the Institute of Molecular and Cellular Biology, University of Strasbourg, France. His research activities are centered on the relationships between sequences, structural architectures, evolution and functions of RNA molecules and their complexes. The tools used are X-ray crystallography, bioinformatics, sequence comparisons, three-dimensional modelling, and molecular dynamics simulations. The aims are the understanding of RNA evolution and of the continued interplay between RNA sequence variations, structure and activity. His editing activities focus on nucleic acids, and he is an editor of *RNA*, *Nucleic Acids Research*, *Journal of Molecular Recognition* and *Biochemical and Biophysical Research Communications*. He was Vice-President for research and doctoral studies of the University of Strasbourg between 2007 and 2012. He has also been president of the French Society of Biochemistry and Molecular Biology (SFBBM) and of the International RNA Society. He is a member of EMBO, Deutsche Akademie der Naturforscher LEOPOLDINA, Academia Europaea and the French Académie des Sciences.

Congress plenary lecture: *tRNA modifications and fidelity of decoding*



FEBS | EMBO Women in Science Award 2023

The FEBS|EMBO Women in Science Award recognizes the exceptional achievements of a female researcher in the life sciences. The 2023 awardee was Sarah Teichmann (Cambridge, UK). She was congratulated at the 47th FEBS Congress, for which she delivered a recorded plenary lecture (being unable to travel).

Sarah Teichmann is a systems and genome biologist who heads the Cellular Genetics programme at the Wellcome Sanger Institute, Cambridge, UK. Sarah did her PhD at the MRC Laboratory of Molecular Biology (LMB), Cambridge, was a Beit Memorial Fellow at University College London, and returned to the LMB to start her own group in 2001. In 2013, she moved to the Wellcome Genome Campus, jointly with the EMBL-European Bioinformatics Institute and the Sanger Institute, and Sarah has been Head of Cellular Genetics at the Sanger Institute since 2016. Sarah's research group develops and applies cell atlasing technologies to map human tissue architecture in order to understand health and disease. In 2016, Sarah co-founded the Human Cell Atlas (HCA) consortium, which she continues to co-lead. The HCA aims to create comprehensive reference maps of all human cells and now includes thousands of members from across the world. Sarah is also Director of Research at the Physics Department at the University of Cambridge. Amongst her honours, Sarah is an elected EMBO Member, Fellow of the Academy of Medical Sciences and Fellow of the Royal Society.



Congress plenary lecture: *Mapping the human body: one cell at a time*

FEBS Anniversary Prizes 2023

Awardees of the FEBS Anniversary Prizes of the Gesellschaft für Biochemie und Molekularbiologie (GBM) are selected for their outstanding achievements in biochemistry, molecular biology or related areas from researchers under the age of 40 who are invited to give a lecture at a FEBS Congress. The recipients for the 47th FEBS Congress were Ville Kaila (Stockholm, Sweden) and Lena Pernas (Cologne, Germany).

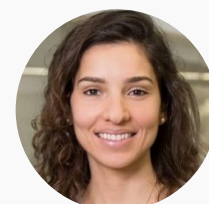
Ville Kaila is a Full Professor of Biochemistry at Stockholm University, Sweden. His research is focused on understanding mechanistic principles of biological energy conversion, which he explores by integrative computational, structural and biophysical approaches.

Congress talk: *Biological energy transduction in action – deciphering the molecular mechanism of the remarkable Complex I superfamily*



Lena Pernas is a Group Leader at the Max Planck Institute for Biology of Ageing, Germany, where her lab investigates the mechanisms by which an infected cell actively rewires metabolic processes and organellar function to defend cells against microbes.

Congress talk: *Organelle and metabolic dynamics of the host–pathogen interaction*



FEBS Press Award Lectures 2023

Recipients of prizes from *The FEBS Journal* and *FEBS Letters* for an outstanding recent paper published in the journals presented plenary lectures at the 47th FEBS Congress about their work. *The FEBS Journal* Richard Perham Prize 2022 awardee Eilika Weber-Ban spoke on 'Molecular mechanism allowing Mycobacteria to evade natural antibiotics targeting the essential ClpCP degradation pathway', and the *FEBS Letters* Award 2023 recipient Peter Eastmond lectured on 'Plant lipid engineering to cut agricultural greenhouse gas emissions'. Find more details about these prizes on the journal websites.

FEBS Diplôme d'Honneur 2023

The FEBS Diplôme d'Honneur, which honours biochemists and molecular biologists who have given outstanding service to FEBS, was presented at the 47th FEBS Congress to Václav Pačes (Prague, Czech Republic), who served as FEBS Secretary General 2017–2022, and Cecília Maria Arraiano (Lisbon, Portugal), who was Chair of the FEBS Working Group on Women in Science 2014–2022.

FEBS Press streamlines peer review and joins Review Commons

Peer review is at the heart of the editorial process for all the FEBS Press journals. Constructive comment by experts in the field can help authors refine their results and increase the significance of their findings, while also ensuring the quality of a journal's content. But, with ever increasing numbers of research articles that bounce from journal to journal before finding a home, reviewers are in high demand. A paper goes through a new round of peer review by a different set of experts every time it is submitted to a new journal, testing the authors' patience.

At FEBS Press, we are making every effort to improve author experience by making the best use of peer review while also expediting the publishing process. We recognize that good peer reviews are a valuable resource that must not be wasted. To avoid multiple rounds of peer review on the same paper, we have implemented three initiatives for all of our journals.

1. Transfers between FEBS Press journals

Papers rejected by one of the FEBS Press journals may be offered the opportunity to transfer to one of the other journals. If authors accept this offer, the manuscript, and any peer review reports, are transferred directly to the other journal, saving authors time and allowing a faster decision if accompanied by peer review reports.

2. Fast-track submissions

All our journals accept 'fast-track' submissions when a paper has been reviewed and rejected by another higher-impact journal. For these submissions, our editors are often able to reach a swift decision (within 1 week) on the basis of the original reports.

3. Review Commons

We are pleased to announce that the FEBS Press journals have now joined [Review Commons](#), a preprint peer review platform which offers authors a peer review service ahead of submitting the paper to a journal. Submissions to Review Commons are sent out for peer review and authors are provided with a Refereed Preprint (in [biorXiv](#)), which includes the authors' manuscript, reports from a single round of peer review and the authors' response. From the Review Commons platform,

authors can then choose to submit their paper together with the reviews to one of over 20 affiliated journals. If the first journal rejects the paper, it can then be transferred to up to three other affiliated journals, in turn. This service shortens the time for editorial decisions, reduces serial re-review and expedites publication.

We are pleased to be part of this initiative to preserve the value of peer reviews and offer authors a streamlined route to publication of their work.



While the measures taken above simplify and speed up the publication process, we felt more could be done to foreground the work of a reviewer, both by making reviewer reports available to all readers, and by crediting the reviewer.

Transparent peer review

There is no reason for reviewer reports and the authors' point-by-point response to remain behind the scenes. This exchange between reviewer and author can be helpful for researchers in the field to tease out the details, and for early-career researchers to learn how to write a review or compose a rebuttal. We have therefore partnered with Web of Science to publish reviewer reports, for those authors who opt in for transparent peer review at submission. After a paper is published, the reviewer reports are added to the article record in Web of Science, accessible through the Open Research link at the foot of the article version of record.

Reviewers may reveal their identity if they wish.

Reviewer credits

We have also partnered with Web of Science (formerly Publons) to allow reviewers who opt in to have the number of reviews completed for each journal added to their [Web of Science researcher profile](#), which may also be added automatically to their ORCID record.

Mary Purton, FEBS Press Publisher



The FEBS Journal

The FEBS Journal publishes high-quality original articles, commentaries and reviews, with particular focus on biochemistry, molecular biology, structural biology, cell biology and much more. We work hard to make publishing with the journal as quick and straightforward as possible.

Among our recent articles, be sure to check out the Emerging Methods and Technologies review on [Recreating the extracellular matrix: novel 3D cell culture platforms in cancer research](#). Here, Konstantina Kyriakopoulou and colleagues provide detailed insight into the recent contributions made by scientists in the field to recreate the extracellular matrix using three-dimensional culture systems, and highlight how incorporation of these cutting-edge technologies could assist moving two-dimensional research into a more translationally relevant in vivo context.

Another absolute must-read is [A guide to UFMylation, an emerging posttranslational modification](#), which delivers a detailed insight into UFMylation, a posttranslational modification mediated by a ubiquitin-like modifier (UBL), Ubiquitin Fold

Modifier-1 (UFM1), that has only really gained attention in the last two decades. This article is a guide into the ins and outs of UFMylation and describes the involvement and implications of this pathway in cellular processes and disease.

If you are interested in the highly interdisciplinary field of crystallography, then the [Words of advice: teaching macromolecular crystallography](#) by Bharath Srinivasan is not to be missed! This latest addition to our Words of Advice series is a heartily recommended read for both students and teachers alike.

The FEBS Journal Editorial Team



FEBS Letters

FEBS Letters is a journal for the rapid publication of full-length articles and short reports in the molecular biosciences, including, but not limited to, molecular cell biology, structural biology, biophysics and biochemistry. Our median time to first decision for manuscripts sent out for peer review is only 3 weeks. We are a hybrid journal, so you can publish with us entirely for free, or Open Access. Our Publisher offers [transformative agreements](#) that may cover your Open Access fees.

We are proud to present two new Special Issues focused on nuclear pore complex biology and nucleo-cytoplasmic trafficking, published in close succession in *FEBS Letters*. The Special Issue entitled [Structure and function of the nuclear envelope and nuclear pores](#), guest-edited by Birthe Fahrenkrog and Susan Gasser, is a collection of state-of-the-art reviews that describe the basic mechanisms of the nuclear envelope as a selective barrier between the nucleus and the cytoplasm. In parallel, the Special Issue [Biomedical implications of nuclear transport](#), guest-

edited by Nathalie Arhel and Mark Field, discusses how perturbations of nuclear transport homeostasis are implicated in a range of pathologies, including neuro-degenerative or movement disorders, ageing, cancer, acute necrotizing encephalopathy, and viral infection.

Finally, we invite you to take a look at the beautiful [Graphical Reviews](#) that *FEBS Letters* is now publishing as a new review format. Pick your favourite to print out and hang up in your lab!

Daniela Ruffell
Managing Editor, *FEBS Letters*



FEBS openbio

[FEBS Open Bio](#) is a fully open access journal that offers fast, fair and thorough peer review that focuses on the technical and ethical quality of the research, rather than more subjective assessments of impact. The journal has undergone significant changes in its 12 years of publication, and we'd like to share some recent developments below.

The latest special issue of *FEBS Open Bio* is our largest yet, with nine articles all centred on the role of glycosphingolipids in disease. The issue opens with a fascinating interview with guest editor Sandro Sonnino, in which he introduces the relevance of ganglioside quantities and their topography for various human diseases. The review articles in the issue focus on diseases as diverse as Parkinson's disease, cystic fibrosis, infertility, and parasite infections, underlying the importance of glycosphingolipids for human health. We invite you to read the issue for free [here](#).

FEBS Open Bio is committed to the free dissemination of research through open access. In

Molecular Oncology

[Molecular Oncology](#) is a fully open-access journal publishing research papers and other article types in the fields of basic, translational and clinical cancer research, as well as emerging concepts in cancer policy, cancer diagnosis, prevention and care. In line with publishing high-quality content, the journal strives to support cancer research and raise cancer awareness via several strategic initiatives and collaborations.

During March 2023, *Molecular Oncology* entered a partnership with the European Association for Cancer Research (EACR), a not-for-profit organization focused on the advancement of cancer research for public benefit. By becoming an affiliate journal of the EACR, *Molecular Oncology* is committed to publish the annual [EACR Congress Abstract Book](#) and a newly-introduced article type written by EACR members, [EACR Viewpoints](#). Moreover, the [EACR-Molecular Oncology publishing fellowship](#) was recently launched to support early-career scientists in gaining knowledge and experience of scientific publishing.

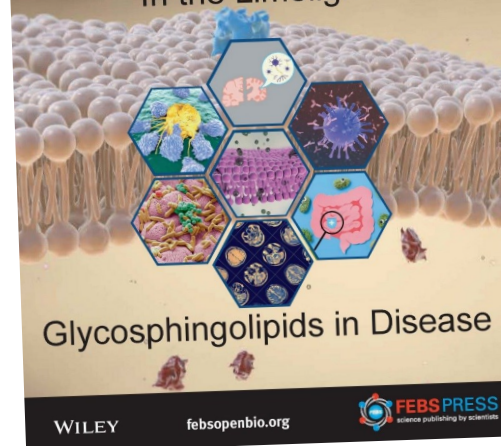
In light of Breast Cancer Awareness Month, the [October issue of Molecular Oncology](#) featured a

line with this philosophy, we have recently started to provide free webinars which tie in with our special 'In the Limelight' issues. Previous webinars have focused on SARS-CoV-2 proteins, neurotransmitter release, and how FEBS can help early-career researchers. All of our previous webinars can be viewed online [here](#); keep an eye on our website for details of our upcoming webinar on glycosphingolipids, scheduled for 21 February 2024 at 4pm CET.

FEBS openbio

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In the Limelight

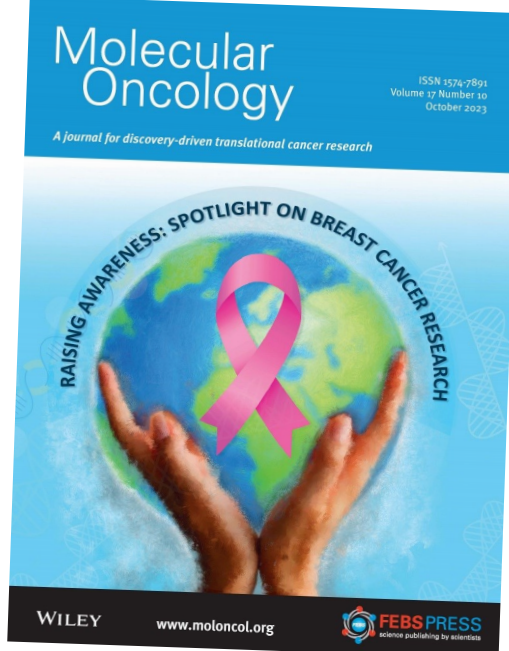


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Duncan Wright
Managing Editor, *FEBS Open Bio*

[Commentary](#) and a [Method](#) article on innovative diagnostic strategies in breast cancer, as well as an array of research articles exploring novel breast cancer biomarkers, the clinical impact and molecular intricacies of diverse therapeutic approaches, and challenges related to therapy resistance. We focused our issue highlights [Breaking barriers in breast cancer therapy](#) on articles that aim at overcoming therapy resistance in breast cancer.

Additionally, the journal published a [Meeting Report on cancer policy](#) and is currently running a call for content on [Liquid Biopsy and Precision Medicine](#).



Ruzhica Bogeska
Managing Editor, *Molecular Oncology*



FEBS Fellowships news

For scientists in the FEBS area:

Most FEBS Fellowships provide stipends for scientists working in a FEBS country to support research visits to a host laboratory in another country in the FEBS area. They aim to broaden experience and training, facilitate access to additional research techniques and expertise, and encourage international collaboration. See a recent [FEBS Network post](#) presenting the experiences of two recipients of FEBS Short-Term Fellowships – one based in Germany who went to a lab in France, and one from Spain who visited a lab in the UK – to gain more insight into the experience of a FEBS Fellowship.

With the exception of Summer Fellowships, FEBS Fellowship applicants need to be a member of one of the FEBS Constituent Societies. Full details of the different Fellowship schemes can be found in the FEBS website's [Fellowships section](#).

Three FEBS Fellowship schemes are currently open for applications for support for research visits in 2024:

- **Short-Term Fellowships** offer financial support for up to 3 months. They are aimed at researchers who have obtained their PhD degree within the last 6 years or PhD students who have at least one published paper as a main author.

- **Collaborative Developmental Scholarships** offer support for 2 or 3 months in well-equipped laboratories of the FEBS area to PhD students, and also early/mid-career PhD holders, of certain FEBS countries with Research4Life (formerly Hinari) status.

- **Ukrainian Short-Term Fellowships** were introduced in 2022 to help scientists in or displaced from Ukraine. They support visits to a host laboratory for up to 4 months.

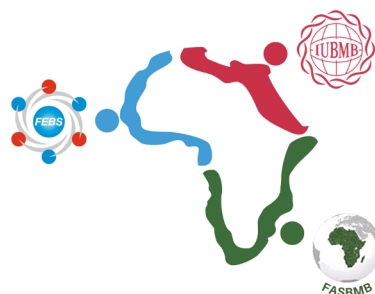
In addition, the next call for **Summer Fellowships** will open on **1 February 2024**, with a deadline of **1 April 2024**. Summer Fellowships are for research visits by young promising PhD or Master students.

The number of Fellowships awarded for research visits in 2023 were 25 Short-Term Fellowships, two Collaborative Developmental Scholarships, three Ukrainian Short-Term Fellowships, and 11 Summer Fellowships. For the Short-Term Fellowships, the top three home countries for successful applicants were Spain, Poland and Portugal, and the top host countries were France and Germany. For Summer Fellowships, these were Austria, Germany and Portugal for home countries, and UK and the Netherlands for host countries.

Alain Krol

Chair, FEBS Fellowships Committee

PROBio-Africa



For scientists in Africa:

A new joint venture between FEBS, the International Union of Biochemistry and Molecular Biology (IUBMB) and the Federation of

African Societies of Biochemistry and Molecular Biology (FASBMB) resulted in the launch of the IUBMB-FEBS-FASBMB PROBio-Africa ('Promoting Research Opportunities for Biochemists in Africa') Fellowships Programme in 2023. Funded jointly by FEBS and IUBMB, PROBio-Africa Fellowships enable PhD students and postdoctoral fellows from Africa to spend up to 6 months in the laboratory of a scientist in a FEBS country, by providing funds to cover travel and

living expenses for the research visit. More details are on the FEBS website [here](#). Five scientists (from Cameroon, Ethiopia and Nigeria) were selected to receive Fellowships in the inaugural call in 2023, for visits to Portugal, Spain and the UK.

In 2024, the call for PROBio-Africa Fellowship applications is expected to run in the **spring**, and will be announced on the FEBS and IUBMB websites.

To help applicants access this scheme, FEBS presents a list of labs in FEBS countries willing in principle to host a PhD student or postdoctoral fellow from Africa for a short research stay as part of this programme, so that the applicants can contact them directly to discuss suitability and a research proposal. If you are interested in contributing to global advancement and collaboration in the molecular life sciences in this way, please fill the [Host Lab Form](#) on the IUBMB website.

Jerka Dumić

Chair, FEBS Integration Committee

Research funds for early-career independent researchers

FEBS Excellence Awards

This prestigious programme at FEBS aims to support highly competitive research in molecular life sciences. The FEBS Excellence Awards provide €100,000 funding over three years to early-career group leaders with a research track record of proven excellence who are working in a FEBS country. The funds are to purchase laboratory equipment and consumables.

We congratulate here ten researchers selected for FEBS Excellence Awards from the recent 2023 call:

Claudio Bonfio

Institute for Supramolecular Science and Engineering, Strasbourg

Agathe Chaigne

Cell Biology, Neurobiology and Biophysics Department, Utrecht University, the Netherlands

Gautam Dey

Cell Biology and Biophysics Unit, European Molecular Biology Laboratory, Heidelberg, Germany

Francesca Grisoni

Eindhoven University of Technology, Eindhoven, the Netherlands

Eugene Kim

Max Planck Institute of Biophysics, Frankfurt, Germany

Silvia Ramundo

Gregor Mendel Institute of Molecular Plant Biology, Vienna, Austria

Pierre Santucci

Laboratoire d'Ingénierie des Systèmes Macromoléculaires (LISM) UMR7255 CNRS, Aix-Marseille Université, Marseille, France

Aldema Sas-Chen

The Shmunis School of Biomedicine and Cancer Research, Tel Aviv, Israel

Miriam Stoeber

Department of Cell Physiology and Metabolism, Faculty of Medicine, University of Geneva, Switzerland

Guillem Ylla

Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland

The journal *FEBS Letters* has recently featured in a [special virtual issue](#) a series of outstanding reviews authored by some of the FEBS Excellence Awardees who received funding in the 2021 and 2022 calls, 'to highlight the ground-breaking research

performed by these excellent scientists'.

The reviews span stem cells (Alessandro Bertero), protein-RNA complexes (Olivier Duss), evolution (Moran Frenkel-Pinter), neurobiology (Carina Soares-Cunha), blood cancer (Kim Kampen), bioenergetics (Hélène Launay), synthetic biology (Kristina Haslinger), and protein assembly (Ulyana Shimanovich).



The next call for FEBS Excellence Award applications is expected to run in 2024 from **1 April to 1 July 2024**. It usually takes 4 months between closure of the call and notification of the outcomes to applicants. Note that applicants must be established as principal investigators (PIs) in a salaried capacity. Find details [here](#).

The FEBS Booster Fund: new for 2024

We are pleased to announce that a new funding scheme is being launched by FEBS in 2024 to support projects led by newly independent academic researchers. **The inaugural call for applications** is expected to run from **1 March to 1 May 2024**.

The FEBS Booster Fund is designed to help early-career academic researchers who have a substantive position (i.e. Assistant Professor level or equivalent) to develop their own independent research by awarding them a one-off grant of €25,000 (inclusive of any taxes) for 1 year (paid to the host institution). This grant is to spend on small equipment and consumables and research-based travel in order to develop a novel research project – allowing the recipient to become more independent, i.e. to publish papers or generate data in order to help them to apply for larger grants from funding providers in the future.

These grants are aimed at newly independent researchers, including early PIs, who have limited funds available to undertake research at present but show great potential. For further details see the FEBS Booster Fund section of the FEBS website [here](#).

*Alain Krol
Chair, FEBS Fellowships Committee*



Molecular life sciences education and training: current trends and how to stay updated

In the ever-evolving world of biochemistry, molecular biology and related areas, education and training are crucial for nurturing the next generation of scientists. The FEBS Education Committee has organized and/or financially supported a wide range of meetings, workshops and webinars in 2023 (see map below) to allow educators to discuss and be updated with the latest developments in teaching, learning and training approaches. What have been the hot topics? This year, we have seen remarkable trends that promise to reshape how we teach and engage students in molecular life sciences and I highlight some below.

Trend 1: The rise of artificial intelligence (AI)

AI is rapidly transforming many aspects of our lives, and education is no exception. AI-powered tools and resources can be used to personalize learning, provide feedback, and automate tasks, freeing up educators to focus on more strategic and creative aspects of their work.

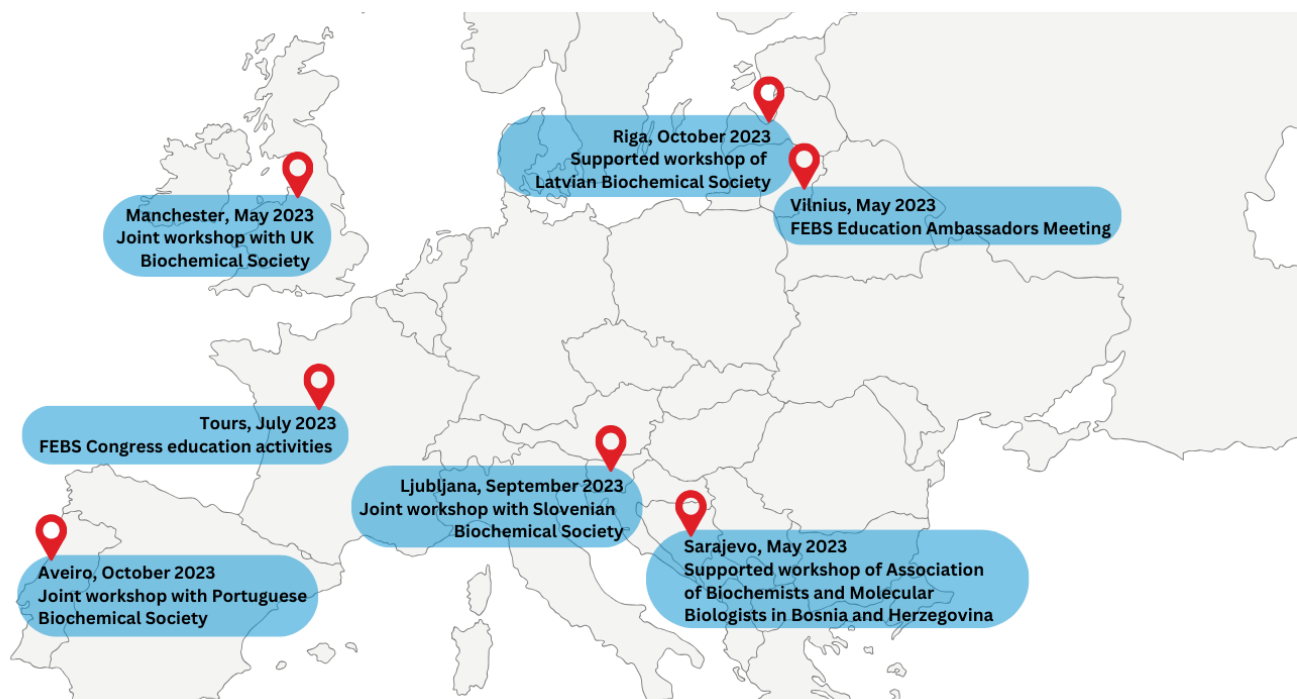
One example of AI in education is the use of adaptive learning platforms, which track student progress and tailor learning activities to each student's individual needs. This can help students to learn at their own pace and in a way that is most

effective for them. Another example is the use of virtual reality (VR) and augmented reality (AR). VR and AR can be used to create immersive learning experiences that allow students to explore complex concepts in a hands-on way. For example, students can use VR to investigate the inside of a cell or AR to visualize a chemical reaction. AI-powered virtual labs enable students to 'perform experiments' that would be too expensive or dangerous in a traditional lab setting. This can help students to develop their practical skills and gain a better understanding of complex scientific concepts.

Trend 2: Student engagement and empowerment

When students display high levels of behavioural, emotional and cognitive engagement, they are more likely to excel academically, form a stronger sense of connection with their university, and have a more positive sense of social and emotional well-being. But no matter the learning context (remote, in-person, or hybrid) keeping students engaged in learning is a common challenge.

Examples of educators in the molecular life sciences responding to this challenge to motivate students and encourage deep learning include increasingly involving students in research projects,



The map shows in-person FEBS education events in 2023, which were mostly carried out in collaborations with FEBS Constituent Societies across Europe. In addition, a meeting for Education Ambassadors of FEBS Societies was held in Vilnius, and popular education activities were arranged at the FEBS Congress in Tours (see page 4). Regular 'seasonal webinars' were also held in 2023 to allow online updates on education issues. Map pin locations are approximate.

collaborative learning activities, and real-world problem-solving.

Such approaches overlap with the idea of ‘active learning strategies’, which require students to do more than just listen to lectures or read textbooks. Also relevant here are interactive online courses – offering flexibility for students to learn at their own pace, and engagement via interactive simulations, quizzes, and other activities – as well as ‘learning experience platforms’ (LXPs) that deliver visually rich content. Additionally, microlearning – providing short bursts of learning content – has emerged as an effective approach to convey knowledge without overwhelming learners.

Trend 3: A shift in assessment methods

Traditional assessment methods such as exams and essays are still important, but educators are increasingly exploring alternative ways to measure students’ learning in a more authentic and holistic way.

For example, alternative assessment methods may use portfolios, which allow students to collect and showcase their work over time. This can help students to reflect on their learning and demonstrate their skills and knowledge in a variety of ways. Performance-based assessments are also attracting attention. These require students to demonstrate their skills and knowledge in real-world contexts. For example, students might design and conduct an experiment, develop a new teaching resource, or create a public service announcement.

More topics to watch

Other trends we are seeing are also worth a mention: a growing emphasis on interdisciplinary and transdisciplinary learning; a shift towards more active and experiential learning methods; a greater focus on developing students’ soft skills, such as communication, collaboration, and critical thinking; and a growing awareness of the importance of diversity and inclusion in education.

The role of FEBS in supporting education and training

FEBS plays an important role in supporting education and training in molecular life sciences, particularly by offering events and activities to help educators stay up-to-date on the latest trends and best practices.

Molecular life sciences education and training are essential for developing the next generation of scientists. We believe that by investing in education



Introducing the FEBS Education and Training Conference

20–23 March 2024 | Antalya, Türkiye

febsetc.org

Key themes

- Current challenges in education
- Digital transformation in education
- Pedagogical innovations
- Soft skills training
- Career development
- Accessible, inclusive and diverse learning environments
- Educational growth, collaborative research and networking

Program features

- plenary talks • hands-on workshops • meet the expert • poster and oral presentations for participants • certification opportunities • networking

and training we can build a brighter future for molecular life sciences research and innovation. The education and training fields are constantly evolving. New technologies, new insights into learning, and new demands from students and employers are all driving change. The FEBS Education Committee is committed to staying ahead of the curve and supporting educators to create the best possible learning experiences for their students. By embracing the latest trends and themes and by working together, we can ensure that our students are equipped with the skills and knowledge they need to succeed in the workplace and make a positive impact on the world.

In 2024, we are particularly excited about the ‘[FEBS Education and Training Conference](https://febsetc.org)’, to be held in Antalya, Türkiye, 20–23 March 2024. We encourage all molecular life scientists to participate in this first biochemistry and molecular life sciences education and training conference in Europe – as well as other FEBS education events. They are a great way to learn about the latest trends in education and training, network with colleagues, and contribute to the advancement of molecular life sciences education.

Ferhan Sağın
FEBS Education Committee



The 22nd FEBS Young Scientists' Forum (YSF2023)

The FEBS Young Scientists' Forum (YSF) is held annually just before the FEBS Congress with the aim of bringing together outstanding PhD students and young postdocs. The organization typically falls into the hands of young scientists from the host country of the event, with the planning period extending beyond two years. Unfortunately, the war broke out in Ukraine in February 2022 and disrupted the original plans for the 2023 edition. Building on the rich history and a proven format of the YSF gathering, the FEBS Working Group on the Careers of Young Scientists chaired by Prof. Irene Díaz-Moreno decided to arrange a special edition of the YSF in collaboration with organizers of previous YSF editions, mindful of the fact that the time for meeting preparations was significantly shortened.

The YSF 2023 took place in the historical and beautiful town of Tours in France, 6–8 July 2023, just ahead of the 47th FEBS Congress. The venue was the Mercure Tours Nord hotel in the outskirts of Tours. The organizing committee consisted of Irene Díaz-Moreno (Chair, Spain), Elisa Frezza (France), Anna Jagusiak (Poland), Maja Katalinic (Croatia), Vlastimil Kulda (Czech Republic), Nino Sincic (Croatia), and Sonia Trojan (Poland).

From 298 applications, 97 early-stage researchers from 32 countries were selected for participation at the event and got a unique opportunity to come together, share their research, and engage in fruitful discussions with their peers and established experts in the field. Out of 97 YSF awardees, 93 participants from the FEBS area were supported by the grants from FEBS, two were sponsored by the

UK Biochemical Society and two from Nigeria received financial support from the International Union of Biochemistry and Molecular Biology (IUBMB).

After the welcoming of participants by members of the organizing committee (Elisa Frezza, Irene Díaz-Moreno), the YSF 2023 began with welcome addresses delivered by Martin Picard (President of the French Society for Biochemistry and Molecular Biology), Alain Krol (Chair of the 47th FEBS Congress) and Miguel A. De la Rosa (FEBS Secretary General), who highlighted the role of such meetings in shaping the future of the life sciences by empowering the next generation of researchers. The opening lecture was given by Zdenko Herceg (Lyon, France), who talked about epigenetics and epigenome deregulation in cancer and introduced his research strategy of combining epidemiology with cutting-edge laboratory science. In the evening participants enjoyed a welcome reception in the garden of the hotel with a barbecue and drinks.

The scientific programme in the following days included two more wonderful keynote lectures delivered by distinguished scientists. Isabel Varela Nieto (Madrid, Spain) addressed hearing loss in her talk 'To hear or not to hear: oxidative stress, neuroinflammation and ageing', and William Martin (Düsseldorf, Germany) lectured on early evolution of life in his talk 'Abiogenesis in the light of darkness: hydrothermal vents and the origin of life'.

Young scientists presented their research over two sessions of ten selected short talks and during the



(top) Ice-breaking activities at the welcome reception in the garden of Mercure Tours Nord hotel; YSF poster session.
 (bottom) Social gathering at a guinguette on the River Loire; YSF 2023 organizing committee members (from left):
 Sonia Trojan, Vlastimil Kulda, Maja Katalinic, Elisa Frezza, Irene Díaz-Moreno and Nino Sincic.

poster session. The presentations encompassed diverse scientific fields and showed the high quality of research conducted by the YSF participants. The following prizes were awarded after jury selection: the *FEBS Open Bio Oral Communication Prize* – David Valdivieso González (Spain), the *FEBS Open Bio Poster Prize* – Julien Kowalewski (France), and the *IUBMB BioFactors Poster Prize* – Guilherme Gil Moreira (Portugal). In addition, Franziska Sendker (Germany) was awarded for the best short talk and Adam Frtús (Czech Republic) for the best poster as a result of voting by the YSF participants.

'Careers Skills' sessions providing advice on key skills and options for career development are traditionally an integral part of the YSF schedule. Vlastimil Kulda (Czech Republic) presented an overview of FEBS programmes and activities for young scientists, Alain Krol (France) covered FEBS Fellowships opportunities, and Ferhan G. Sağın (Türkiye) stressed the importance of educator skills. Keith Elliott (UK) talked about CV preparation, and participants could benefit from his guidance at one-to-one CV support session during the FEBS

Congress. April Rodd (USA) revealed modern challenges in publishing ethics. Jason Perret (Belgium) convinced the audience about the importance of keeping a proper laboratory notebook.

Although the conference itinerary was packed, there was still time for social events. A guided tour of Tours was followed by dinner in a characteristic guinguette on the banks of the Loire River surrounded by nature, and afterwards participants could dance at a party organized by Guinguette Rochecorbon.

In conclusion, we are delighted to receive so many positive and enthusiastic feedback remarks from the participants, albeit the event was one day shorter than usual due to the reasons mentioned in the introduction. We can look forward to the next YSF edition which will be held from June 26 to June 29 in 2024 at the University of Pavia, Italy.

Elisa Frezza
Vlastimil Kulda
Irene Díaz-Moreno
 FEBS YSF 2023 Organizing Committee

The 23rd FEBS Young Scientists' Forum (YSF 2024): apply now!

Dear colleagues and friends,

It is a great pleasure to invite you to submit your application to participate in the [YSF 2024](#) and be one of the outstanding PhD students and young postdocs from around Europe who will be hosted from June 26 to June 29 at the University of Pavia – one of the oldest Italian universities, situated in a beautiful medieval town on the Ticino River in the north of Italy. The YSF 2024 will be held just before and in conjunction with the 48th FEBS Congress in Milano, which YSF participants will experience as well.

The YSF 2024 will host about 100 selected PhD and young postdoc researchers in biochemistry and molecular biology. Their registration and accommodation expenses, as well as most of the travel costs for both the YSF and FEBS Congress, will be covered by YSF grants from FEBS. Details on how to apply, including eligibility criteria, can be found on the [YSF Applications page](#).

The YSF 2024 aims to provide a unique forum for young scientists to present their work, discuss new methods and cutting-edge technologies, be challenged by emerging debates, and build a fruitful network with peers around Europe. Experienced mentors and trainee moderators will facilitate active participation in scientific discussion to allow all attendees to be engaged as participants rather than spectators.

The scientific focus of the invited speaker program will be sustainability and the importance of molecular details in cell function and physiology. As alluded to by the slogan of the YSF logo, the interdisciplinary nature of biochemistry will bridge the gap between different disciplines supporting progress of humanity in areas such as health, agriculture and the environment. Topics beyond research, such as technology transfer and scientific communication, will also be discussed.

To sum up, the YSF 2024 will provide a friendly atmosphere in a scenic location with opportunities for you to discuss your work with peers and leading scientists, and establish friendships and collaborations to propel future research. We are looking forward to receiving your application!

Riccardo Miggiano
Chair, FEBS YSF 2024 Organizing Committee
Irene Díaz-Moreno
Chair, FEBS Careers of Young Scientists Committee



The iconic bridge 'Ponte Coperto' of Pavia is used in the logo for the FEBS YSF 2024 to represent the host city as well as the mission of science: bridging the gap of knowledge to sustain humanity's progress. The bottom two photos show aspects of the University of Pavia.

The FEBS Junior Section

We are thrilled to introduce you to the FEBS Junior Section (FEBS JS), a vibrant community of students and young researchers in molecular life sciences from all over Europe. Our initiative was created by members of several national biochemical and molecular biological societies across Europe that belong to FEBS, and we are now under the umbrella of the FEBS Careers of Young Scientists Committee. We strive to create opportunities, foster mobility, and share experiences between young scientists.

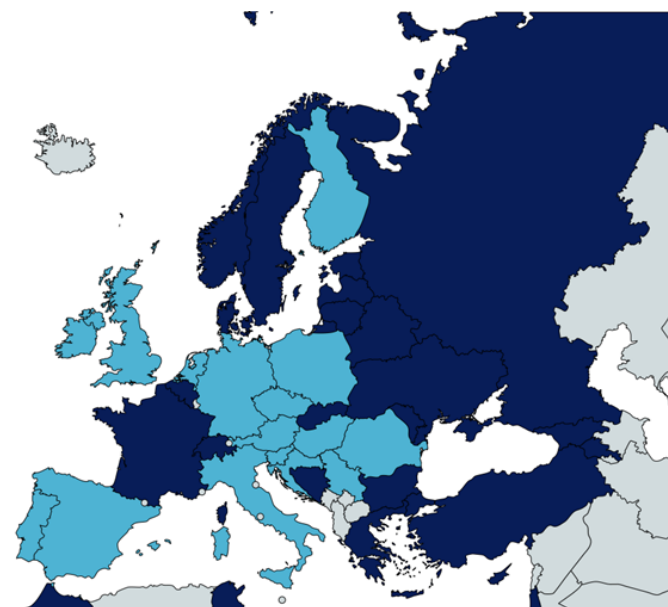
What makes us special? We organize engaging online talks, which feature either renowned researchers investigating cutting-edge scientific advancements or entrepreneurs sharing their insights into a successful career. Moreover, we offer a platform for fellow students and researchers to connect, creating an ecosystem of collaboration and mutual support.

Looking into the future, we will double down on supporting the development of young scientists throughout their careers. On the one hand, this will be by encouraging in-person opportunities such as participating in international FEBS conferences. On the other hand, we are motivating young scientists to set up their own Junior Sections of FEBS Constituent Societies. It is our goal to build a network of junior members incorporating every European country to also promote local support!

Additionally, the FEBS JS aims to foster a close relationship with the FEBS Press journals. This enables us to provide young scientists with valuable insights into the publishing processes and at the same time support the idea of publishing in journals that belong to scientific societies and thus contribute to the funding of extensive programmes of fellowships, courses and awards. Moreover, we want to promote equality and diversity in science in collaboration with the FEBS Women in Science Committee.

If you are a student or early-career scientist in the molecular life sciences, the FEBS JS is your gateway to a world of possibilities. This is your chance to make the most of your potential, form a strong network, and create a nurturing environment for young scientists to thrive. To learn more and get involved, visit our webpage, and connect with us on the FEBS Network. You are more than welcome to join! We are looking forward to meeting you!

*Patrick Penndorf and Alexander Röntgen, FEBS JS
Irene Díaz-Moreno, Chair, FEBS Careers of Young
Scientists Committee*



(top) Currently, the FEBS JS brings together Junior Representatives from 15 FEBS Constituent Societies (light blue). Moreover, we are maintaining contacts to further countries aspiring to join the FEBS JS. Created with *MapChart.net*. (bottom) FEBS JS representatives supported by FEBS to attend the GBM colloquium in Mosbach, Germany, in 2022. From left to right: Tamara Tomic (ÖGMBT), Clara Rey Valenzuela (SEBBM), Alexander Röntgen (GBM), Marija Pinterić (HDBMB), Patrick Penndorf (GBM), Ana Novačić (HDBMB), Sara León Álvarez (SEBBM), Alberto Martínez Soriano (SEBBM).

[Junior Section room on FEBS Network](#)

[Junior Section page on FEBS website](#)

Email: juniorsection@febs.org

Instagram: [@febs_juniorsection](#)

X: [@FEBS_JS](#)

LinkedIn: [FEBS Junior Section](#)

Facebook: [FEBS Junior Section](#)

Support for FEBS Constituent Society events



Slovak–Czech– Ukrainian–Hungarian FEBS3+ Meeting '50 years of recombinant DNA - Past, Present, Future' 10–13 September 2023 High Tatras, Slovakia

The venue

The meeting participants were welcomed at the Grand Hotel Bellevue in Horný Smokovec in the heart of the High Tatras. The High Tatras offers unusually clean air, a mountain climate, wonderful fauna and flora, glacial ponds, waterfalls and the Belianska cave.

Why FEBS3+?

The meeting was organized by the Slovak Society for Biochemistry and Molecular Biology (SSBMB) in close cooperation with the Czech Society for Biochemistry and Molecular Biology (ČSBMB), and with the organizational participation of the Ukrainian Biochemical Society (UBS) and the Hungarian Biochemical Society (HBS). The meetings of biochemists and molecular biologists from Slovakia and Czechia have been regularly organized biennially by SSBMB and ČSBMB (with the exception of recent pandemic years). The FEBS3+ format arose from the idea of broadening the scope of the conference to two neighbouring countries to allow even wider presentation, networking and collaboration opportunities for the attendees. The travel grants from FEBS3+ funding raised the interest of

young researchers from these countries and contributed to increased numbers of PhD student participants. The experience of collaboration between SSBMB and ČSBMB allowed the smooth inclusion of the other regional biochemical societies and the organization of a successful event in a relatively short time frame.

The conference in numbers

Three plenary lectures, 66 regular session lectures, 93 posters, 227 participants including 51 PhD students, 15 exhibitors, 3 awards for the best poster, 4 awards from Elsevier, and 4 awards from exhibitors (Sipoch, Biotech, Genetica, IAB). And about 800 meals and 2000 cups of coffee consumed!

Programme highlights

Highlights of the programme were surely plenary lectures by Andrea Fleig (Biomedical Research at The Queen's Medical Center Honolulu County, Hawaii, USA) on cannabinoid research, Marshall Bloom (National Institute of Allergy and Infection Diseases, USA) on tick-borne diseases, and Ulrike Stein (Experimental and Clinical Research Center, Charité - Universitätsmedizin Berlin and Max-Delbrück Center for Molecular Medicine, Germany) on oncology research, along with talks from young scientists Martin Toul (Brno, Czech Republic) on rational design of enzymes and Ľubica Kormanová (Bratislava, Slovakia) on novel recombinant protein production.

A 'Women in Science' workshop and a lecture from Václav Pačes (Prague,

Czech Republic) within the framework of a FEBS Special Session on Research and Career Skills also generated broad discussion.

Hot topics?

The thematic structure of the event reflected the latest trends in biochemistry and molecular biology research. Advances in Next-gen sequencing technologies were one of the hottest topics – this was a crowded section in terms of both speakers and attendance. Recombinant protein production raised a similar interest, along with traditional subjects of cancer research.

Especially for the next generation?

Young researchers had very strong representation throughout the topics and sections and presented their research alongside experienced scientists from all participating countries. A reduced fee was offered for PhD students to support participation, and they were invited to participate in 'The Young Scientist Award' competition for the best oral and poster presentation

Beyond the science?

The event was rich in non-formal activities – a welcome drink was organized along with a gala dinner and a wine-tasting event. The location of the conference in High Tatras along with great weather offered exceptional possibilities for hiking or other activities in this beautiful mountain area. The venue itself offered great wellness and relaxation options.

Favourite meeting moment?

Although not related to science, everyone's favourite moment was the time attendees wanted to use one of many wellness options of the venue, and had to pass the registration desk and the main conference lobby in nothing but their bathrobe and with a blushed face.

Off piste activities?

A traditional lunch for selected members and leaders of the Societies on the penultimate day enabled discussion of future event organization, collaboration proposals and even stronger involvement of young researchers in the agenda of their respective society.

What I learned as an event organizer

One of the most important lessons from organizing an event like this was that trying to accommodate everyone's wishes simply is not possible, but we tried our best and hopefully the smiles on the faces of attendees meant the effort was not in vain.

Thanks

To FEBS, CVTI (Slovak Centre of Scientific and Technical Information), the biochemical/molecular biology societies of Slovakia, Czechia, Hungary and Ukraine, and the event sponsors, without whom it would not be possible: ABL&E-JASCO Hungary, Beckman Coulter Česká republika, BIOTECH, DYNEX Servis,

Elsevier, Generi Biotech, GeneTiCA, Lambda Life, Merck Life Science, MGP, Eppendorf, ProScience Tech, Sipoch, Specion, TRIGON PLUS.

Ján Turňa

President, Slovak Society of Biochemistry and Molecular Biology

*Gabriela Gavurníková and Zdenko Levarski
For Organizing Committee*

About FEBS3+ Meetings:

FEBS provides a grant of €10,000 towards FEBS3+ event organization and a further €10,000 for travel awards for early-career scientists from the collaborating Societies travelling from outside the host country; find more details in the [Societies section](#) of the FEBS website.

FEBS National Lectures

FEBS National Lectures are FEBS-supported plenary lectures from distinguished scientists from outside the event-hosting country at scientific meetings of FEBS Constituent Societies. An engraved glass award is presented to the lecturer, as a memento of the speaker's selection and significant contribution to the meeting. FEBS National Lectures in 2023 are summarized below. Applications are invited from FEBS Societies for FEBS National Lectures at 2024 events; more details are in the [Societies section](#) of the FEBS website.



Prof. **Dragan Primorac** (pictured above), affiliated with the Universities of Rijeka, Osijek and Split, Croatia, presented a FEBS National Lecture at the first international conference of The Association of Biochemists and Molecular Biologists in Bosnia and Herzegovina (ABMB in BH). His excellent lecture, entitled 'From bench to bedside: translating science from the lab to

clinical practice' was followed by a number of questions from members of the scientific community, leading to fruitful discussion.

This ABMB in BH conference, organized under the auspices of FEBS in Sarajevo, Bosnia and Herzegovina, 18–20 May 2023, was a historic event for our association, as for the first time we succeeded to bring together our regular members, new members and colleagues from many different countries. During the conference, the



diversity of the biochemistry community, from students and early-career researchers to internationally leading experts in the field of biochemistry and molecular biology, was celebrated.

The first day of the conference was devoted to a FEBS education session called 'Innovative teaching as a basis for excellent research in bioscience', and then the opening ceremony of the scientific conference (with speeches from Prof. Adlija Causevic, president of ABMB in BH, and Prof. Miguel A. De la Rosa, Secretary General of FEBS). The scientific programme of the conference lasted two days

and was divided into five sessions: basic and applied biochemistry, molecular biology, biotechnology, precision medicine and gene–environment interactions. Besides the excellent lectures given by 8 plenary and 21 invited speakers, 97 posters were presented by both domestic and international participants. A best poster was awarded with a *FEBS Open Bio* poster prize. The conference abstracts were published in a special edition of the journal *Genetics and applications*, the official journal of the Institute for genetic engineering and biotechnology, University of Sarajevo.

Adlija Causevic, President of ABMB in BH

SEBBM
SEBBM

Prof. Dr **Peter Rehling** (Dept of Cellular Biochemistry at University Medical Center, Georg August University, Göttingen, Germany) gave

the FEBS National Lecture 'Regulation of mitochondrial gene expression' at the 45th Congress of the Spanish Society of Biochemistry and Molecular Biology (SEBBM) in Zaragoza, Spain (5–8 September 2023).

The Congress attracted over 700 attendees and, in addition to plenary lectures, symposia, seminars and posters, featured 16 meetings of the SEBBM scientific groups as well as activities such as an introductory course and professional development session for young researchers, and workshops for 'women and science' and 'entrepreneurship and innovation'. There were also satellite 'Biochemistry in the City' events including activities linking science with art, music and beer.

*Inmaculada Yruela
President of 45^o SEBBM Meeting 2023*



Peter Rehling (left) presented with a FEBS National Lecture award by Miguel A. De la Rosa, FEBS Secretary General.



Prof. **Graziella Pellegrini** (University of Modena e Reggio Emilia, Modena, Italy) gave the FEBS National Lecture at the 5th BIO Congress (the 52nd meeting of members of the Polish Biochemical Society) in Szczecin, Poland (13–16 September 2023) on

'Stem cell properties for clinical application: what is needed?'. Graziella Pellegrini has dedicated most of her scientific activities to translational medicine. She is recognized as a leading scientist in human squamous epithelial stem cell biology and has been a driving force in the development of epithelial stem cell-mediated cell therapy and gene therapy.

The 5th BIO Congress of Polish Biosciences – "Different faces of biosciences" was organized in collaboration with other life sciences associations (the Polish Society for Cell Biology, the Polish Biophysical Society, the Polish Society for Laboratory Diagnostics, the Polish Cytometric Society, the Polish Mycological Society, and the American Society for Microbiology), and was attended by 254 participants.

The Congress included plenary sessions from invited speakers as well as oral presentations and posters.



Graziella Pellegrini (centre), with Adam Szewczyk, Polish Biochemical Society President (left) and Barbara Dolegowska (right).

Internationally renowned scientists from Poland and all over the world presented their most recent data.

Barbara Dolegowska, Chair, Organizing Committee



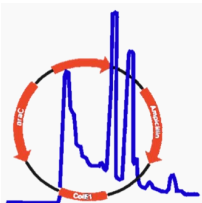
The 62nd SIB Congress 2023 (a meeting of the Italian Society of Biochemistry and Molecular Biology) hosted on 8 September 2023 Prof. **Massimiliano Mazzone** for a FEBS National Lecture entitled ‘Harnessing tumor metabolism to overcome immunosuppression’.

Massimiliano Mazzone heads the Lab of Tumor Inflammation and Angiogenesis at the Center for Cancer Biology in Leuven, Belgium. As his group is studying the molecular and cellular mechanisms controlling inflammatory cell twisting in cancer, he talked about the metabolic competition between stromal and cancer cells, with special focus on macrophages and endothelial cells. They made a step forward in the understanding of this molecular interplay, identifying nutrients and molecules like fucose to regulate cancer immune evasion.

Due to an unexpected strike, Massimiliano Mazzone could not fly to Florence and give the lecture in person (and received the glass award later). As the meeting was operating in a dual mode, with a streaming opportunity for several attendees, we rapidly adapted to a virtual talk and the lecture was appreciated by the audience, as revealed by the high scientific level of the later discussion.



Paola Chiarugi, President, SIB



The Romanian Society of Biochemistry and Molecular Biology (RSBMB) hosted Dr **Pietro Roversi** (currently at the Institute of Agricultural Biology and Biotechnology and Department of Biosciences, University of Milano, Italy), as the FEBS National Lecturer during the Annual International Meeting of RSBMB, Cluj-Napoca, Romania, 13–15 September 2023. Roversi spoke on ‘Structure and function of EDEM:PDI, the glycoprotein misfolding ERAD checkpoint’. Together with tackling with the right pedagogical mix the complex topic of the protein structure revealed by advanced cryo-EM imaging techniques, his enthusiasm and passion for science were fascinating. This inspiring talk was highly appreciated by the audience and raised interesting discussion among participants. The FEBS National Lecture

award was presented to him during the plenary session.

The meeting gathered 120 participants, among them 65 young researchers, from Romania and abroad, and represented a great opportunity for scientists in the field of biochemistry and molecular sciences to present their work and discuss current topics.



Adela Pintea, Chair, Organizing Committee



The 15th Meeting of the Slovenian Biochemical Society, held 20–23 September 2023 in the picturesque coastal town of Portorož, brought together 222 scientific participants and 33 sponsors’ representatives, fostering a vibrant atmosphere. With 46 lectures and 120 posters, the conference

covered a diverse array of topics, reflecting the dynamic nature and latest developments of modern biochemistry, and for the first time, biochemical education.

One of the standout moments of the conference was the FEBS National Lecture from Dr **Anke Becker** from Philips-Universität Marburg, Germany, titled ‘The pABC world: an open modular construction environment for synthetic multipartite bacterial genomes’. In her captivating presentation, she unveiled insights into the world of plasmids and their role in engineering bacteria. She highlighted the advantages of plasmids as versatile DNA-carrying vectors, and described her group’s research addressing common challenges in the field – low plasmid propagation stability and limited cloning capacity. Her

team developed an ingenious strategy based on segmented genomes, a concept commonly found in eukaryotes but rare in bacteria. They harnessed secondary replicons, present in certain α -proteobacteria, to create an open modular construction

environment for synthetic multipartite bacterial genomes, aptly named the ‘pABC world’. This innovative approach promises to revolutionize the field by providing a flexible platform for diverse applications.



Anke Becker (left) receiving a FEBS National Lecture award from Roman Jerala, Slovenian Biochemical Society President.



The conference served as a hub for networking, collaboration, and the exchange of ideas, solidifying its position as a premier event in the Slovenian biochemistry community. It underscored the ongoing quest for

knowledge and innovation in the field of biochemistry, as well as the Society's commitment to education and mentorship of future generations of scientists and educators.

Miha Pavšič, Organizing Committee President



Prof. **Konrad Sandhoff** (Senior Professor, LIMES, c/o Kekulé-Institute, University of Bonn, Germany), the eponymous researcher of the 'Sandhoff disease', an inherited neurodegenerative ganglioside storage disorder, was the FEBS National

Lecturer at the 34th National Biochemistry Congress of the Turkish Biochemical Society (TBS), at Fethiye, Türkiye, 29 October – 1 November 2023.

Konrad Sandhoff gave an outstanding talk titled 'Regulation of neuronal ganglioside degradation by genetic and posttranslational modifiers' in which he elaborated on how cascades of secondary metabolic errors can generate complex pathologies in lysosomal storage diseases. He walked the congress participants through his nearly 60 years of research in lysosomal diseases. The important regulator and signalling functions of many membrane lipids for various metabolic pathways occurring at organellar membranes and within organellar lumen was discussed. Thus, pathological changes of the cellular lipid composition

may mis-regulate cellular metabolism, especially lipid and membrane metabolism in obesity, Alzheimer and Parkinson disease.

The congress had over 15 international speakers and 650 participants (and featured 201 short presentations and 104 posters). It also coincided with the 100th anniversary of the foundation of the Turkish Republic which was celebrated with great enthusiasm and joy of the Turkish scientists.



Ferhan Sağın, Vice-President, TBS

FEBS Science and Society: call for Constituent Society proposals

FEBS Constituent Societies are invited to apply by 31 December 2023 for €1500 grants for 'science and society' activities in 2024 (from speaker events to educational activities, including for public engagement) related to the topic of how nutrition and exercise impact metabolism, general public

health and quality of life. This topic was the focus of a FEBS Science and Society event at the 2023 FEBS Congress in Tours, and the idea is to build on this and reach a wider audience. More details can be found on the FEBS website [here](#).

FEBS Science and Society Committee

The FEBS Network

The [FEBS Network](#) platform presents a variety of content to support, interest and update the molecular life science community, including career and soft skills advice, opinion, news, researcher interviews, and teaching tips. A few recent posts are highlighted below as examples, as well as the winning video in a 2023 competition that invited young researchers to explain their research in this format.

[Register on the FEBS Network](#) to sign up for alerts to new posts in areas of the site that interest you, and to 'like', comment, present your profile, and have access to the site's connection tools. You are also invited to help shape the FEBS Network for the future by responding to the [FEBS Network Survey 2023](#).

FEBS Network Committee

[Being a group leader in academia](#), Reinhard Jahn

[Why storytelling should be part of your professional toolkit](#), Chris Thomsom

[Strengthening research integrity in Europe: Exploring the role of a pan-European body and engaging the research community](#), Sandra Bendiscioli

[Generative AI in assessment](#), David Paul Smith and Nigel James Francis

[The power of public engagement in fundamental research](#), Faye Watson

[My favourite lab technique: Alessandro Bertero highlights genome editing in human pluripotent stem cells](#)

[Anti-LexA Nanobodies to Fight Antibiotic Resistance](#), Filippo Vascon (video)

FEBS Council election outcomes (Tours, 12 July 2023)

FEBS Executive Committee elections

Treasurer:

Francesco (Frank) Michelangeli (UK); third term

Chair, Advanced Courses Committee:

Mauro Maccarrone (Italy); first term

Chair, Publications Committee:

Johannes Buchner (Germany); second term

Chair, Careers of Young Scientists Committee:

Irene Díaz-Moreno (Spain); third term

New Members of other FEBS Committees

Advanced Courses Committee:

Tamas Aranyi (Hungary), Zrinka Kovarik (Croatia)

Education Committee:

Didier Picard (Switzerland)

Fellowships Committee:

Carmen Castresana (Spain), Marie Sissler (France), Pawel Switonski (Poland), László Virág (Hungary)

Finance Committee:

Antonio Ferrer-Montiel (Spain)

FEBS Network Committee:

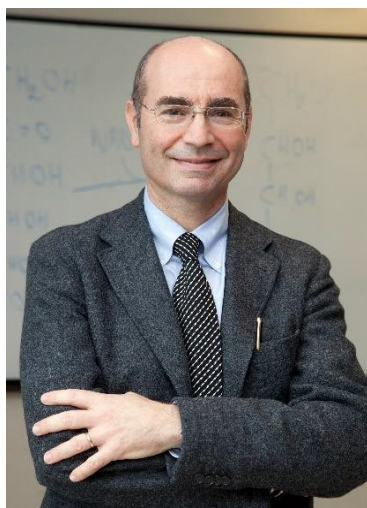
Myrtani Pieri (Cyprus)

Posts start on 1 January 2024. Elected terms for Executive Committee members are for three years, and terms for Committee and Working Group members are for four years. Full current FEBS Committee and Working Group lists are available in the FEBS website's [About](#) section.

Other Executive Committee positions 2024: *Chair of FEBS Executive Committee 2024:* Graça Soveral (Portugal); *Vice Chair 2024:* Alain Krol (France). These are one-year appointments for FEBS Constituent Societies that have organized the most recent two FEBS Congresses.

The next FEBS Council meeting will take place on 4th July 2024 in Milano, Italy following the 48th FEBS Congress. Further details will be sent to FEBS Constituent Societies in early 2024.

Introducing a new FEBS Executive Committee member (from 1 Jan 2024)



Prof. Mauro Maccarrone
Chair, FEBS Advanced Courses Committee

Mauro Maccarrone is Professor and Chair of Biochemistry at the Department of Biotechnological and Applied Clinical Sciences, University of L'Aquila, Italy. He is

also Head of the Lipid Neurochemistry Unit at the European Center for Brain Research – IRCCS Santa Lucia Foundation in Rome.

After doctoral degrees in enzymology (University of L'Aquila and University of Rome "Tor Vergata") and in bio-organic chemistry (University of Utrecht, the Netherlands), his research has focused on lipid biochemistry in health and disease. He has published >550 highly cited full papers, been an invited speaker at over 100 international congresses and guest editor of several themed journal issues, and

holds nine granted patents. He has received various international awards, including the 2016 Mechoulam Award for cannabinoid research and the 2020 Tu Youyou Award for medicinal chemistry. He was President of the International Cannabinoid Research Society (ICRS) in 2010–2011, chaired a 2015 Gordon Research Conference ("Cannabinoid Function in the CNS") and was a Visiting Professor at the University of Cambridge, UK in 2017.

Aims in this FEBS role

"It is an honour, privilege and yet great responsibility to be elected as Chair of the Advanced Courses Committee – and thus also a member of the Executive Committee – of FEBS. I have served in the Advanced Courses Committee from 2020 to 2023, actively collaborating with the other members in evaluating and selecting proposals, and attending several courses as a committee representative. This gave me the opportunity to interact with a very large scientific community, and I plan to bring to my new role a rather extensive experience in collaborating with senior and young researchers in Europe and beyond. I also look forward to working with others at FEBS to advance the goals of our Federation."



Managing FEBS Advanced Courses – a reflection



Professor Beáta G. Vértessy has held the position of Chair of the FEBS Advanced Courses Committee for three elected terms, since 2015. As she steps down from the position at the end of 2023, she looks back on her role at FEBS and the enduring importance of Advanced Courses for the scientific community.

Beáta G. Vértessy combines research and teaching as Professor at the Dept of Applied Biotechnology of the Budapest University of Technology and Economics (BME) and Research Professor at the Institute of Enzymology of the Hungarian Research Network in Hungary. She completed graduate research at the University of Chicago, USA and at the Institute of Enzymology in Hungary, working on enzymes and the cytoskeleton. In her postdoctoral research, she worked on nucleotide metabolism as an Alexander von Humboldt postdoc in Saarbrücken, and at the Universities of Lund, Stockholm and Chicago. Returning to Hungary, she started her group with a Howard Hughes International Scholar grant (awarded twice, in 2000 and 2005), focusing on genome integrity, DNA damage and repair. Her group has proposed a developmental role for uracil-DNA and developed new methods to detect and map uracil in genomic DNA via next-generation sequencing and in situ super-resolution microscopy. Her lab is

studying patterns and functions of DNA errors, with an emphasis on biomedical implications in anti-cancer drug treatments. She has established the Biostruct laboratory to facilitate development of macromolecular crystallography in Hungary. The Scientia Europea prize from Institut de France and Aventis, the L'Oréal-UNESCO prize, and Best Lecturer award of the BME are among her numerous distinctions. She has been elected as member to the Academia Europaea in 2021 and to the Hungarian Academy of Sciences in 2022. Her mentoring of students from early undergraduate to postgraduate levels (including 22 PhDs) has led to numerous successful careers in science and innovative biomedical businesses.

Why did you get involved with FEBS?

For those of us who were born and grew up in the communist era in central and eastern Europe, FEBS had a special meaning – because it represented a scientific but also a societal open window towards freedom, particularly through its international conferences. One FEBS Congress I was able to attend in West Berlin in 1986, before the fall of the Berlin Wall, had a particular positive impact on me.

Now we have democracies throughout Europe, but I still see the events FEBS organizes and funds, including the FEBS Advanced Courses, as providing very important open opportunities for young people from a wide range of countries, including some where scientific research is more challenging to carry out, to meet and learn for the benefit of science and society.

In a nutshell, what has your role overseeing the FEBS Advanced Courses programme entailed?

The main roles have been the twice-yearly assessment of proposals from organizers for FEBS funding, and then monitoring of the awarded courses to ensure aims are delivered. Other related work has included developing course guidelines to direct organizers' efforts. For the proposal assessments I work with a small group of senior scientists, who join the FEBS Advanced Courses

Committee after nomination, scientific appraisal by the Committee and election by the FEBS Council.

What experiences influenced how you approached this role?

I was one such member of the Advanced Courses Committee from 2006 to 2010 so learned a lot from observing committee operations. In this context, the turnover of committee members (they serve four-year terms) is very valuable, as experience is built on but fresh ideas are also brought in. My roles in international jury panels for evaluating research proposals also provided key inputs.

FEBS Advanced Courses have a long tradition. Would a participant or organizer from a 1970s course recognize one today?

Definitely yes! Both then and now the common denominator is scientific excellence – courses on topics that are addressing important open questions in molecular life sciences, and speakers who are research leaders. Also, the ethos of keeping a high ratio of senior scientists (speakers/tutors) to young scientists has been maintained, so early-career scientists can benefit from interactions with research experts in their fields. Of course, there have been some changes in how events are organized, and we also often see nowadays inclusion

of training in soft skills and other career development matters.

Tell us about a couple of significant changes you have introduced into the management of the Advanced Courses programme

We developed a clearcut set of rules for evaluating proposals for funding of events as FEBS Advanced Courses: each is assessed in detail by at least two committee members ahead of a committee meeting (and a third if they disagree), and then the pros and cons of all proposals are discussed by the committee as a panel jury for the final decisions. There are three outcomes: excellent proposals are funded with only minor comments returned; some others demonstrating scientific excellence but with some aspects of course management that do not meet FEBS Advanced Courses expectations may be accepted with revision; and we also try to return helpful comments to organizers who submit proposals that are not selected for funding.

We have also enhanced the monitoring of courses by committee members. Each course is assigned a committee member who attends some of the event and completes a written report on it. This, in addition to the organizers' own reporting (which includes a FEBS participant survey), is a useful reference when organizers submit proposal requests again, and in general for improving courses.

What do you see as the key ingredients of a successful FEBS Advanced Course?

Scientific excellence is the first – that is, an important topic, and speakers and tutors who are well regarded for their scientific background but who are also good communicators. In addition, creation of an intimate atmosphere, joint activities in the free time and an isolated location all help to encourage students to ask questions and interact with speakers not only in scientific sessions but more informally. Career development training also adds value. We aim at increasing the participation of young researchers by offering FEBS Youth Travel Fund grants (YTFs).

The Covid period was a challenging time for Advanced Courses, as for other in-person events. What did you learn?

We found that online meetings can be realized and can be fruitful and useful, but... also we experienced that for the goals of current FEBS Advanced Courses the in-person experience is mostly essential.

Chairs of FEBS committees are also Trustees and Directors of FEBS. How have you found the wider responsibility and work for FEBS?

It was a great honour to have this responsibility and to play a constructive role in a joint manner with other elected FEBS Executive Committee members in considering directions for the organization – for example discussing what FEBS could do and what it should do, and deciding responses to arising circumstances.

How have you managed to juggle your active research career with this extra voluntary role?

Here I would like to acknowledge great assistance from Dr Kinga Nyiri, an active young scientist, who efficiently handled many administrative aspects related to the course applications and reporting. We also have support from FEBS staff in Cambridge, who for example handle financial aspects of the courses (including grant payments to individuals for YTFs) and liaison over branded event websites offered to organizers. I feel it is important that active eminent scientists can take on elected responsibilities at FEBS as they are close to the actual needs and concerns of the scientific community, and so such support is essential.

What have you most enjoyed about the role?

There have been several rewarding aspects. It has been a pleasure to meet and work with other committee members (respected motivated scientists from a variety of countries who make different contributions), as well as going to some Advanced Courses and seeing how much young scientists are enjoying them. And then when some organizers and lecturers tell me they were once students themselves at Advanced Courses, and in some cases the experiences were career changing, you really see that the courses are very important. In general, it is enriching to work on an activity with a noble cause.

What would have been your dream FEBS Advanced Course to attend?

A hands-on practical course where I could characterise my own samples! Indeed, I would like to see more Practical Courses within the Advanced Courses programme and encourage more proposals.

How will you use extra time next year?

Leading on from my last answer, more research: I would like to head into the lab more. More family time will be welcome too.



FEBS Advanced Courses 2023–2024

The FEBS Advanced Courses programme funds events in various formats across Europe on focused research fields in biochemistry, molecular biology and related disciplines. They provide opportunities for learning and training, updates on recent progress, and networking and discussion with peers and experts in a similar research area – as illustrated by brief highlights from three 2023 events below.

The list of FEBS Advanced Courses planned for 2024 can be found on page 30. [FEBS Youth Travel fund grants](#) are available to assist participation.

The first deadline for applications from expert scientists for organization of events in 2025 is **1 March 2024**. Find application guidelines [here](#).

Beáta G. Vértessy
Chair, FEBS Advanced Courses Committee



Advanced Proteomics

Varna, Italy

30 July – 5 August 2023

Aims

Proteomics technologies have become an integral part of modern life science research. The vast expansion of the user base for the technology and the constant development of the field has led to an immense shortage of scientists skilled in the field, and perhaps an even greater lack of widespread knowledge of how to use proteomics for biomedical research.

This FEBS Advanced Lecture Course was aimed at providing insight into the latest tools and

approaches found in proteomics. It covered everything from design of the biological experiment through sample preparation, data acquisition and subsequent data analysis. The speakers were selected from all aspects of proteomics including those that design and build the instrumentation as well those that produce state-of-the-art results.

We have been organizing this summer school for the past 20 years and the course has continued to evolve to support this training. It is open to Master's students, PhD students and postdoctoral researchers from all over the world and from a wide range of disciplines.

Program features

The course comprised 12 lectures and 10 workshops. The lectures covered technology fundamentals, current best practices and future developments. Just over a third were dedicated to the latest trends and research that has produced cutting-edge data. These main topics were further explored in the workshops, which consisted of case studies that covered general scenarios and bespoke examples based on the experience of the students.

Participants presented their own research at a Science Slam session as well as at open-air poster sessions in the monastery garden.

We aimed to create a fun and intimate experience for the participants. The choice of location, timetable and special activities, such as our mountain hike, allowed extensive student–tutor and student–student interactions.

Special moments

For the first time, this year we started our event with a hands-on science show and quiz by Kim Ludwig-Petsch on the Sunday evening, which allowed the students and speakers to relax after long journeys to reach the monastery.

With copious snacks and drinks, the participants were able to ‘experiment’ in groups, answer quiz questions and make first contact during the physical science show (physical in both senses). The response was excellent.

Other highlights were our annual hike in the Dolomites with the whole group and the speakers, and the Science Slam, which is always good for a surprise. The lecture by Albert Heck (Utrecht, Netherlands) rounded off our event and showed the many possibilities of proteomics in the life sciences.

Unfortunately, this year we have to say goodbye to Prof. Dr Katrin Marcus-Alic, a founding member of the summer school. We would like to sincerely thank her for her tireless efforts and contagious enthusiasm for proteomics. We have all enjoyed the great summer schools she has organized over the past two decades, with which she has significantly shaped and advanced the field of proteomics.

Caroline May

On behalf of the course organizers Katrin Marcus-Alic, Shabaz Mohammed and Caroline May

Investigating Metabolism in Biological Systems applying Metabolomics – from cells to whole organisms

Liverpool, UK

4–8 September 2023

Aims

Over the past 20 years metabolomics has evolved into a powerful tool allowing the investigation of hundreds to low thousands of metabolites (including lipids) that can be applied across the biological and clinical sciences. This FEBS Practical Course provided a unique opportunity for attendees to learn about this exciting technique, gain hands-on experience using state-of-the-art scientific instruments, and learn how to apply metabolomics research in their own projects.

Program features

The course was designed to maximize hands-on training in both experimental and computational aspects of the metabolomics workflow. Attendees completed small-group laboratory sessions on how to prepare samples for metabolomics analysis, data acquisition using liquid chromatography–mass



spectrometry and NMR spectroscopy, and computational workshops in data processing, statistical analysis and metabolite annotation/identification.

The course programme included lectures to provide theoretical background to the practical sessions, and three keynote speakers – James Macrae (The Francis Crick Institute, UK), Claire O’Donovan (European Bioinformatics Institute, UK) and Howbeer Muhamad-Ali (University of Liverpool, UK) – joined us to highlight specific applications. Throughout the week attendees participated in group activities, social events and networking activities, and the course ended with a panel Q&A.

Special moments

The entire week was enjoyed by attendees and the teaching team, and it was very interesting to learn through the numerous informal discussions how attendees were currently applying or planned to apply metabolomics in their own research projects and laboratories. A particular highlight was the many questions and discussion points raised during the panel Q&A at the end of the week, highlighting how much attendees had learnt during the week. The trainers enjoyed the interaction with the trainees and the trainees’ enthusiasm for the scientific research tool.

Cate Winder and Rick Dunn
Course Organizers



Protein Folding, Aggregation and Compartmentalization

*Spetses Island, Greece
1–8 September 2023*

Aims

Our FEBS Advanced Lecture Course aimed to provide a unique meeting and training opportunity for young scientists in the fields of protein folding and amyloid formation. In-depth discussions were organized on key topics such as amyloid structures, chaperones, membrane-less organelles, lipids, functional amyloids, and amyloid pathology. Through an array of interactive sessions such as poster presentations, oral discussions, and informal meet-the-expert gatherings, we created a favourable environment to learning and networking, thus facilitating knowledge exchange, discussions on novel concepts, drug discovery strategies for amyloid-related diseases, and the potential of functional amyloids for innovative biomaterials.

Program features

Our program was designed to actively encourage multiple student

activities and interactions with lecturers and peers throughout each day, thereby stimulating scientific dialogue and creating a unique, friendly, and inspiring atmosphere.

All attendees stayed in the iconic Anargyrios and Korgialenios School of Spetses (AKSS), a historical and cultural heritage site of the island of Spetses.

A total of 18 world-renowned lecturers shared cutting-edge knowledge and 19 students were selected to present their work. All students presented a poster and showcased their work during four separate poster-pitch sessions, fostering intense discussions. All students and speakers participated in the anonymous voting for the best poster and best oral student presenter.

Research highlights

Four keynote lectures were presented by frontier scientists: Sheena Radford (Leeds, UK), Bernd Bukau (Heidelberg, Germany), Simon Alberti (Dresden, Germany), and Rick Morimoto (Evanston, USA). Exemplary of the general atmosphere and considered a true highlight was the

fact that after most presentations, students took over the entire allocated time for questions, leaving the lecturers no chance!

Special moments

We began with a group stroll to Spetses' picturesque old harbour, followed by a special welcome dinner near the fish market. This encouraged socializing and introduced newcomers to the beauty of Spetses. It is special how many of the speakers have attended a Spetses FEBS course as students, and now spend time to share their passion, inspiring our new generation of young scientists. A unique aspect were two evenings providing students the chance to dine in small groups of eight with a speaker. Another highlight was a boat trip to the island's caves, blending adventure with science. The culmination was an unforgettable last evening with music and a BBQ. Thank you, FEBS, for allowing us to organize this unforgettable event in which many new friendships and collaborations were formed!

*Bernd Helms and Dora Kaloyanova
Course Organizers*



FEBS ADVANCED COURSES 2024

FEBS ADVANCED LECTURE COURSES

Molecular mechanisms of interorgan crosstalk in health and disease

Spetses Island, Greece; May 9–17, 2024

Organizer: Andreas Herrlich

interorgancrosstalk2024.febsevents.org/

HFP2024: molecular mechanisms of host-pathogen interactions and virulence in human fungal pathogens

La Colle sur Loup, France

May 18–24, 2024

Organizer: Guilhem Janbon

Fish immunology: molecular and evolutionary perspectives

Spetses Island, Greece

September 22–28, 2024

Organizer: Joachim Frey

Redox biochemistry: cellular responses and disease relevance

Spetses Island, Greece

September 30 – October 6, 2024

Organizer: Tilman Grune

5th Danube Conference on epigenetics

Budapest, Hungary

October 28–31, 2024

Organizer: Tamas Arányi

FEBS PRACTICAL COURSES

Advanced methods in macromolecular crystallization X

Ceske Budejovice, Czech Republic

June 9–15, 2024

Organizer: Ivana Kutá Smatanová

Functional imaging of cellular dynamics

Amsterdam, Netherlands

June 9–15, 2024

Organizer: Mark Hink

FEBS PRACTICAL AND LECTURE COURSES

Metals in biology: their importance and tools to study them

Carcavelos and Oeiras, Portugal

May 26 – June 2, 2024

Organizer: Ricardo O. Louro

[FEBS Youth Travel Fund \(YTF\) grants](#) are available to assist participation of early-career researchers in FEBS Advanced Courses; see the course websites for details for each event.

Next deadlines for Advanced Courses proposals from organizers are 1 March and 1 September 2024.

FEBS WORKSHOPS

Transglutaminases in human disease processes

Bertinoro, Italy

May 19–23, 2024

Organizer: Elisabetta Verderio Edwards

Les Houches-Telluride workshop on protein dynamics

Les Houches, France

June 2–7, 2024

Organizer: Martin Weik

5th international conference on the long and the short of non-coding RNAs

Chania, Greece

June 17–22, 2024

Organizer: Andrei Thomas-Tikhonenko

Protein termini 2024: from insight to impact

Oxford, United Kingdom

September 8–11, 2024

Organizer: Emily Flashman

Proteolysis: at the interface between health and disease

Bled, Slovenia

September 14–18, 2024

Organizer: Boris Turk

JOINT FEBS/EMBO LECTURE COURSES

Membranes, lipids and proteins in organelle biogenesis

Spetses Island, Greece; May 26 – June 1, 2024

Organizer: Eefjan Breukink

spetses2024.sites.uu.nl/

Cell biology of host-pathogen interactions

Padua, Italy

June 24–28, 2024

Organizer: Lena Pernas

Molecular mechanisms in signal transduction and cancer

Spetses Island, Greece; August 18–26, 2024

Organizer: Boudewijn Burgering

meetings.embo.org/event/24-signal-transduction

Molecular mechanisms of ageing and regeneration: from hydra to humans

Spetses Island, Greece

September 5–12, 2024

Organizer: Christoph Englert

Mitochondria in life, death and disease

Landshut, Germany

September 16–20, 2024

Organizer: F.-Nora Voegtle



MILANO 29 June - 3 July 2024
Italy | Allianz MiCo - Milano Convention Centre



48th FEBS
CONGRESS

Mining biochemistry
for human health and well-being

Federation
of European
Biochemical
Societies



Introducing the 48th FEBS Congress: see you in Milano!

Registration and abstract submission are now open for 'FEBS 2024', hosted by the Italian Society of Biochemistry and Molecular Biology (SIB) in Milano, Italy, from June 29 to July 3, 2024. Find an introduction to the event below, and explore all the details on the Congress website: 2024.febscongress.org

'Mining biochemistry for human health and well-being' is the core theme of the 48th FEBS Congress, which will attract hundreds of scientists to Milano in summer 2024!

The European and the worldwide biochemical community will convene to discuss the perspectives that research in the fields of molecular, metabolic and biotechnology sciences offer for the progress of human life. The Congress aims to offer cutting-edge views on topics that stem from fundamental biochemistry and synergize with other branches of molecular sciences, to explore the vast domain of life sciences. In particular, the parallel sessions of the Congress will address the roles of biochemistry in health and diseases, environmental biochemistry, and biochemistry for human well-being, all underpinned by the central position of biochemistry in life science research.

The Congress will take place at the MiCo Convention Centre in Milano, one of the main Italian cities for life science research, business, culture and fashion, and offering many fascinating museums and activities for visitors. Beyond the scientific programme, the Congress will host social events and targeted gatherings aimed at fostering cross-contacts within the community while promoting a colourful introduction to the 'Milanese' lifestyle.

The 48th FEBS Congress aims to be a premier cross-disciplinary gathering in the molecular life sciences for research presentations, discussion, learning, inspiration, encouragement and networking. Given the scientific breadth of the Congress and the welcoming location, we expect a vibrant gathering of participants at all career stages from all over Europe and beyond.

Invited speaker lectures: perspectives from research leaders

The 48th FEBS Congress is hosting **15 plenary lectures** from worldwide researchers who have made outstanding contribution to their fields, **including four Nobel laureates**, providing an excellent opportunity for participants to get the bigger picture across the molecular life sciences (see box on next page).

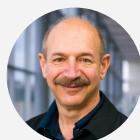
In addition, other expert researchers have been invited to speak in the **30 parallel sessions devoted to focused research topics**, ranging from fundamental areas such as structural biology and proteomics to more applied subjects such as enzyme engineering, functional foods and gene therapy. The symposia parallel sessions are arranged into four main themes.

In developing the scientific programme, SIB actively collaborated with the FEBS journals and FEBS, considering also suggestions for speakers from the FEBS Constituent Societies.

Opportunities to present your own research

Offering plenty of possibilities to participants of the 48th Congress to present their own research findings is also an important aim of the event. In addition to two invited speakers for each 2-hour symposium, **up to 100 additional speakers will be selected for symposia talks from submitted abstracts**. Furthermore, **over 80 speed talk slots are available** in speed talk sessions, again to be selected from submitted abstracts. This organization will foster the presentation of top-notch subjects and latest developments, as well as applied and technological research, from the international community.

Plenary lectures at the 48th FEBS Congress



Discovering therapeutic targets by random germline mutagenesis and automated meiotic mapping, **Bruce Beutler**, USA

Opening Plenary Lecture



Clathrin-mediated membrane traffic and its influence on human health

Frances Brodsky, UK

The FEBS Journal Lecture



Protein misfolding and aggregation: role in aging, neurodegeneration, non-neuropathic diseases and cancer, **Fabrizio Chiti**, Italy

Closing Plenary Lecture



Title tbc

Elena Conti, Germany

EMBO Lecture



Transcription of the genome

Patrick Cramer, Germany

FEBS Datta Lecture



Mechanisms that spatially organize and silence heterochromatin during development

Susan Gasser, Switzerland

Molecular Oncology Lecture



The century of vision in molecular biology

Robert Huber, Germany

FEBS 2024 Special Lecture and Q&A



New molecular and cellular insights in cardiovascular diseases

Sergio Lavandero, Chile

PABMB Lecture



Emerging imaging technologies to study subcellular architecture, dynamics and function, **Jennifer Lippincott-Schwartz**, USA

IUBMB Lecture



Innate immunity and inflammation: from molecules to cancer and COVID-19

Alberto Mantovani, Italy

FEBS Sir Hans Krebs Lecture



Initiation of translation by the ribosome

Venki Ramakrishnan, UK

FEBS Theodor Bücher Lecture



Signaling through the ubiquitin-proteasome system

Brenda Schulman, UK

FEBS Letters Lecture



Membrane lipids and neural cell signaling

Sandro Sonnino, Italy

FEBS Open Bio Lecture



The rotary mechanism of ATP synthase; how it is regulated and influences the assembly of the enzyme, **John Walker**, UK

FEBS 2024 Special Lecture

The 2024 FEBS|EMBO Women in Science Award winner will also join the plenary speaker line-up once selected.

Last but not least, **posters** will make an important contribution to knowledge exchange and networking at the event, and the programme will include **poster presentations that will be arranged by topic**.

Accepted abstracts received by the March deadline will be published in an online supplement of *FEBS Open Bio* and all abstracts will be searchable on a handy Congress app.

Science and more...

Beyond the research-oriented talks and posters, FEBS 2024 will offer you a plethora of additional activities. For example, issues related to education and journal publishing will also be discussed in dedicated sessions during the meeting. In addition, for those interested in moving research from the lab to applications, a special session on 'Private and public funds in translational research' will offer

lectures from Claudia Pingue (Technology Transfer Fund, CDP Venture Capital) and Sandra Ferri (European Investment Fund).

Furthermore, a number of optional off-site social activities will allow participants to delve into Italian life and culture: food, wine, fashion and art will be the subjects of specific 'biochemistry-based' social events. SIB is also planning a special social event to facilitate networking of young participants. Last but not least, you will have the opportunity to explore the products and services offered by exhibitors at the event.

Congress support schemes

A low registration fee for the event is offered for scientists under the age of 35. In addition, researchers from the FEBS area submitting an abstract to the Congress may be eligible to apply to one of the event's support schemes, including FEBS bursaries,

which contribute to travel and accommodation costs as well as the registration fee. An additional opportunity for young researchers is the Young Scientists' Forum 2024 (see page 17), which will take place as a special satellite event in Pavia, just before the Congress. Those selected to take part in the YSF will receive financial support for participation in the YSF and the Congress.

Milano: the perfect venue

Milano has not just style but also history and beauty. Some of the city's most beautiful attractions include the Duomo, an impressive Opera House, a striking castle, ancient churches, and a great variety of museums and art galleries.

The Duomo of Milano is the heart of the city. It is the most elaborate Gothic building in Italy, a unique architectural masterpiece characterized by thousands of carved spires and statues of marble. Go to the rooftop for an unmissable walk and panorama.

The Opera House 'La Scala' is the most fashionable and most imitated theatre in the world and has hosted the greatest conductors and artists. Its magnificence lies in its history, the enchanted atmosphere and the perfect acoustics.

Nowadays the Castello Sforzesco, the city's former 15th century defensive fortress, presents artwork in several first-class museums, including Leonardo's 'Sala delle Asse' and Michelangelo's 'Pietà Rondanini'. It also has spectacular courtyards.

Moreover, for city life, the Navigli district is the ideal place for a stroll along the city's waterways, or chilling out at one of the many restaurants and bars.

As you can see, several opportunities are waiting for you in Milano from June 29 to July 3, 2024: we are looking forward to seeing you and sharing top science, enthusiasm, good food, and all the best of Italy.

*Mauro Magnani, Chair of 48th FEBS Congress
Paola Chiarugi, President, Italian Society
of Biochemistry and Molecular Biology*

Call for abstracts

Main abstract deadline: March 8, 2024*

for consideration for oral presentations, FEBS bursaries, and inclusion in the *FEBS Open Bio* Congress supplement

[Call for abstracts](#)
[Abstract topics](#)

*The YSF abstract deadline is December 7, 2023



(from top) MiCo Convention Centre, the venue for the 48th FEBS Congress; Piazza del Duomo ('Cathedral Square') in the centre of Milano; interior of La Scala (opera house). Images from YesMilano.

