

# FEBS News

FEDERATION OF EUROPEAN BIOCHEMICAL SOCIETIES

## **NOVEMBER 2022**



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Cover: Save the dates for the 47th FEBS Congress, in Tours, 8–12 July 2023! Find an introduction to the Congress and preceding YSF on pages 31–33.









About FEBS News: This issue as well as all former issues of FEBS News are available online at <a href="www.febs.org">www.febs.org</a>. To receive an email when a new FEBS News issue is out, simply sign up to the e-newsletter in the <a href="News section">News section</a> 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 <u>Career Opportunities</u> section of the website, and scientific events can be listed in our <u>Conference Calendar</u>. In addition, Constituent Societies of FEBS are able to post news on the <u>FEBS Network</u> platform.

Federation of European Biochemical Societies (FEBS): <a href="https://www.febs.org">www.febs.org</a>

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Dear colleagues,

With the general receding of the COVID-19 pandemic, this year we could start to experience again the enjoyment of meeting in person at scientific meetings. Indeed, it was a busy spell for FEBS-supported events, with several postponed Advanced Courses (pages 29–30) and FEBS National Lectures (pages 21–23) finally able to take place. A highlight of the year was the joint IUBMB-FEBS-PABMB Congress, hosted by the Portuguese Biochemical Society (SPB). It was the first time the organizations had come together in this way, and we thank SPB for their considerable efforts to deliver the event. Enjoy photos and a report on the Congress in the first section of this FEBS News issue, along with summaries of the preceding FEBS Young Scientists' Forum and FEBS Fellows Meeting.

But as one global challenge seemed to be easing, the invasion of Ukraine by Russia brought new dismay. The FEBS Executive Committee acted promptly to cancel the FEBS Congress planned for Moscow in 2023, and the Member Societies of FEBS from Russia and Belarus have had their membership temporarily suspended. Additional support for scientists in or displaced from Ukraine was incorporated into Congress and Fellowship schemes, and several

Ukrainian Short-Term Fellowships have been awarded. As written in statements earlier in the year, FEBS hopes for peaceful times again when scientists from all its Constituent Societies can without difficulties collaborate and support each other in the pursuit of science for the benefit of humankind.

Such interaction is in evidence in several FEBS activities, but one section of this FEBS News issue puts the spotlight on three initiatives that specifically encourage collaboration of the Societies that make up FEBS, in various goals (pages 16-19): the FEBS3+ Meetings programme, which provides funding for a scientific meeting that brings together three or more Societies; the recent coming together of some junior sections of FEBS Societies to coordinate shared aims and activities; and the now wellestablished FEBS Education Ambassadors initiative, which provides an international network for educators from each FEBS Constituent Society.

In this issue you can also find updates on a range of other FEBS activities, including the newly introduced FEBS Excellence Award and FEBS-IUBMB-ENABLE conferences (pages 19–20). Of course, FEBS programmes of support would not be possible without income from the FEBS Press journals, and I

draw your attention to journal news on pages 12–15, including the latest open access updates and several interesting subject collections and other special articles.

Scientists who volunteer their time on FEBS Committees and Working Groups have fixed terms that can be renewed limited times and, following elections by the FEBS Council in the summer, the turn of the year will see several changes. We thank those stepping down for their contributions, and welcome new scientists to the running of FEBS (pages 24–28). I also leave my position at the end of the year and wish all the best to my successor Miguel A. De la Rosa.

I end here by encouraging you to explore plans for the 47th FEBS Congress, in Tours, France, 8–12 July 2023 – and for those at earlier career stages also the preceding Young Scientists' Forum (pages 31–33). We thank the French Society for Biochemistry and Molecular Biology for stepping in to host the Congress. The programme is looking very exciting!

Václav Pačes FEBS Secretary General



## **Upcoming FEBS application deadlines**

**FEBS Congress 2023** 

Young Scientists' Forum: 8 December 2022

Congress abstracts: 9 March 2023

FEBS Congress bursaries: 9 March 2023

FEBS Congress Mathias Sprinzl scheme: 9 March 2023

**2023 FEBS Advanced Courses**See individual event websites

2024 Advanced Courses proposals

1 March 2023

**FEBS Fellowships** 

Summer Fellowships: 1 May 2023 Short-Term Fellowships and Collaborative Developmental Scholarships: applications can be sent throughout year FEBS Excellence Award: 1 July 2023

For FEBS Societies:

**2023 FEBS3+ Meeting proposals** 31 December 2022

FEBS Constituent Society 'Science & Society' proposals
15 January 2023



# The IUBMB-FEBS-PABMB Congress, Lisbon, 2022

The grand comeback of in-person meetings

For the first time in history, FEBS, IUBMB and PABMB teamed up in a single global event in 2022 (combining the 25th IUBMB, 46th FEBS and15th PABMB Congresses), which was named 'The Biochemistry Global Summit'. The event was held from 9th to 14th July 2022 at the Lisboa Congress Centre in the beautiful city of Lisbon, Portugal, organized by the Portuguese Biochemical Society in collaboration with IUBMB, FEBS and PABMB. Only an Iberian country could host a meeting like this and Lisbon was the perfect fit because its culture inspires discoveries, innovation and audacity. For the days of the event, Lisbon was turned into the world capital of biochemistry.

As if the challenges of organizing a tripartite meeting were not enough, the COVID-19 pandemic brought additional hurdles. The Congress was planned originally for July 2021 but postponed to July 2022 when the preceding FEBS Congress was moved on a year. Notably, all those involved decided to have The Biochemistry Global Summit as a strictly in-person meeting. After the severe





The first evening together at the IUBMB–FEBS–PABMB Congress, with a background of music (provided by TUNA ACADÉMICA - FFUL, University of Lisbon; centre right) and exhibitor booths.



















(top row) Historic opening with, from left, Congress Co-Chairs Miguel Castanho and Graça Soveral (PT), the Rector of the University of Lisbon Luis Ferreira, IUBMB President Alexandra Newton (US), FEBS Secretary General Václav Pačes (CZ) and PABMB Chair Bianca Zingales (BR) sharing the stage, followed by (right) opening lecture from Sarah Teichmann. (second row) Plenary lecturers Cecília Rodrigues (FEBS Sir Hans Krebs Medal recipient, with FEBS Chair Piotr Laidler) and Masayuki Yamamoto (with Graça Soveral). (third row) Contrasting Congress elements: auditorium plenary lecture (John Cryan) and pavilion posters. (fourth row) Enjoying the return to in-person interactions, including (right) during the Congress dinner at Casa do Alentejo.



limitations to scientific meetings imposed by the pandemic during 2020 and 2021, it was time to recover the joy of discussing biochemistry face-to-face. The economic impact, present all along the way in the travelling and event organization sector, and the sudden political instability in eastern Europe were a heavy burden, but we succeeded. The event attracted over 1350 delegates from 62 countries, with most coming from Poland, Italy, Czech Republic, Spain, Romania, Turkey, UK, Brazil, Hungary, Croatia, Germany, USA, Chile, Israel and Australia. It is worth mentioning that young scientists (under 35 years of age) made up more than 70% of all participants.

The programme covered a broad spectrum of timely topics in the fields of molecular life sciences, ranging from fundamental subjects and approaches to applied research with impact on human wellbeing and technological development. Top scientists from all over the world were gathered in a true 'global summit' to present and discuss their latest scientific achievements. A range of science-related educational and societal topics as well as an exhibition from commerce and industry were also included.

Following the opening ceremony, which included an address from the Rector of the University of Lisbon, the Opening Plenary Lecture (dedicated to Claudina Rodrigues-Pousada, a Portuguese researcher who was deeply involved in FEBS activities) was delivered by Sarah Teichmann (Wellcome Sanger Institute, Cambridge, UK) on 'Mapping the human body one cell at a time'. The Closing Plenary Lecture (FEBS Theodor Bücher Lecture) on 'MINFLUX and MINSTED provide molecule-scale resolution in fluorescence microscopy' was given by Stefan W. Hell, Nobel Prizewinner in Chemistry and director at both the Max Planck Institute for Medical Research in Heidelberg and the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany. Other plenary lectures were given by leading experts in fields of top-notch research: John F. Cryan (University College Cork, Ireland) – FEBS Datta Lecture; Cecília Rodrigues (University of Lisbon, Portugal) – FEBS Sir Hans Krebs Lecture; Pura Muñoz-Cánoves (ICREA, Pompeu Fabra University, Barcelona and CNIC, Madrid, Spain) – EMBO Lecture; Erin Schuman (Max Planck Institute for Brain Research, Frankfurt, Germany) – FEBS/EMBO Women in Science Award Lecture; Costantino Iadecola (Cornell University, NY, USA) IUBMB E.C. Slater Lecture; Masayuki Yamamoto

(Tohoku University Graduate School of Medicine, Japan) – IUBMB Kunio Yagi Lecture; Jerson L. Silva (Federal University of Rio de Janeiro, Brazil) – PABMB Lecture; Antonio Barbáchano [Spanish National Research Council (CSIC), Madrid, Spain – *The FEBS Journal* Richard Perham Prize Lecture; Ian Chambers (University of Edinburgh, Scotland, UK) – *FEBS Letters* Award Lecture; and Boris Jokić (Institute for Social Research in Zagreb, Croatia) – FEBS Education Plenary Lecture. With one exception arising from COVID-19 it was appreciated that all plenary lecturers could travel to the event for live in-person delivery

In addition to the unique plenary lectures, The Biochemistry Global Summit offered participants a rich scientific programme covered by 28 symposia topics and including 56 symposia lectures delivered by the invited speakers, and 109 short talks chosen by the session Chairs from among the submitted abstracts. Moreover, the Congress programme offered a variety of Special Sessions, including those from FEBS on Gender Issues in Science, Science and Society, and Research and Career Skills, and from the European Research Council on their initiatives and funding opportunities. This year FEBS and IUBMB co-organized three Special Sessions, one dedicated to new advances on the structure and dynamics of SARS-CoV-2, one on Education, and one on FEBS and IUBMB Fellowships. In addition, a 'RiboMed Satellite Conference on RNA in Disease' (organized independently by the session Chairs in the context of the EU-funded project RiboMed) was made open to all the Congress participants.

Molecular-level knowledge to public health impacts of biochemistry were presented and passionately discussed by the audience. There were prizes, awards and other forms of recognition for selected presentations. Moreover, an exhibition and updates from partners and industry were part of the Congress, presenting detailed information on their products and facilities in exhibition booths and in commercial sessions. Importantly, we thank the commercial sponsors for their support, and the PCO Alive Travel for their resilience during such troubled times for companies in the travelling and event organization sector.

Over 900 posters, including those submitted as late-breaking, were presented during the afternoon poster sessions from Sunday to Wednesday. The poster sessions were an excellent opportunity to meet peers and for face-to-face discussions,



motivating young researchers and students to present their work in a welcoming and relaxed atmosphere, with a cup of coffee and drinks.

The Congress was preceded by the IUBMB–FEBS–PABMB Young Scientists' Forum (YSF2022) which took place at Vimeiro, located on the Portuguese coast (see below).

According to tradition, at the end of the closing ceremony the FEBS flag was passed to the organizers of the 47th FEBS Congress, to be held

in Tours, France. We wish them good luck in the preparation of the event, and hope to meet everyone again in Tours in 2023.

Graça Soveral and Miguel Castanho Congress Co-Chairs

**FEBS Congress Survey**: thanks to all Congress participants who completed the 2022 feedback survey to help inform future plans. The free registration to the 47th FEBS Congress in 2023 goes to Lisette Leyton, Faculty of Medicine, Universidad de Chile, Santiago, Chile.

# The IUBMB-FEBS-PABMB Young Scientists' Forum

#### **Aims**

Building on the tradition of the established IUBMB Young Scientists Program (YSP) and FEBS Young Scientists' Forum (YSF) events, the aims of the 2022 IUBMB–FEBS–PABMB YSF ('YSF2022') were to give young scientists the opportunity to present their research, develop their scientific knowledge and skills, and broaden their professional network. The YSF2022 was held just ahead of and in conjunction with the joint IUBMB–FEBS–PABMB Congress, and both events aimed to focus not only on the development of the scientific aspects of the young scientist's career but also to provide a rewarding personal experience.

#### The event in brief

The YSF2022 took place from 6th to 9th July at Hotel Golf Mar in Vimeiro, located on the Portuguese coast with a fantastic view of the Atlantic Ocean. The event gathered together about 110 pre- and post-doctoral young scientists, representing 33 countries from all over the world, and supported to attend by grants from FEBS, IUBMB and PABMB. The participants were welcomed by the representatives of the different Societies (Alexandra Newton, IUBMB President; Václav Pačes, FEBS Secretary General; Bianca Zingales, PABMB President; and Graça Soveral, SPB President), who talked about the importance







of the meeting for the Societies, and the role of events like this to foster the careers of young scientists.

The scientific programme of the meeting started with a tribute to Claudina Rodrigues-Pousada, a key figure in the development of the FEBS YSF, and a keynote lecture by Bruno Correia (Switzerland) that showed how to engineer proteins to build better vaccines. The participants also had the opportunity to learn from other keynote lectures in different scientific fields: Franck Martin (France) talked about cellular translation during SARS-Cov-2 infection; Elyse Fischer (UK), winner of the IUBMB Whelan Young Investigator Award, presented her inspiring work on novel mechanisms of mitotic checkpoint complex assembly at kinetochores; and Rohit Pappu (USA) explained some novel biophysical principles of biomolecular condensates.

The participants were also able to join different practical exercises on key aspects for the development of their careers: Keith Elliott (UK) exposed the fundamentals for preparing a catching CV, while Juanita Perera (Germany) gave some tips and hints on how to write a successful abstract. Mark Roberts (UK) helped the participants understand how to engage the public with science, and Élyse Fischer gave a workshop on a very important, but sometimes neglected, topic: the importance of self-confidence for researchers. Another important aspect of the scientific career is obtaining funding. To prepare them for this endeavour, the participants received valuable insights from FEBS (Alain Krol, France) and IUBMB (Ilona Grabinger, Chile) on funding opportunities available for young researchers, as well as on how to prepare a proposal (Irene Díaz-Moreno, Spain). They also learned more about ethics in science (László Fésus, Hungary) and how to push a career forward out of academia (Marta Ribeiro, Portugal and Ana Patrícia Silva, Switzerland).

#### Highlights

We would like to emphasize the opportunity that the young scientists had to present their research over three sessions of selected oral communications, two sessions of 1-minute poster presentations, and two sessions of poster presentations. The presentations covered a variety of scientific fields and demonstrated the high quality of the work presented by the participants. However, we had to choose three winners in each category, and after voting we congratulate João Victor Cabral-Costa (Brazil), Katja Fritschle (Germany), Nonkululeko Mkwanazi (South Africa), Gonçalo Garcia (Portugal), Maria Bzówka (Poland), Mustafa Karabiçici (Turkey), Cagla Kayabasi (Turkey), Evelyn Templeton (New Zealand) and Hudson Coates (Australia)!

Most importantly, the young scientists at the event were able to share ideas with their fellow participants in an informal atmosphere over meals and coffee/tea breaks. We hope this was the beginning of many fruitful research collaborations!

Ana Salomé V eiga (Co-Chair) 2022 YSF Organizing Committee Irene Díaz-Moreno, Chair, FEBS Working Group on the Careers of Young Scientists



## **FEBS Fellows Meeting 2022**

First held over ten years ago, the FEBS Fellows Meeting aims to bring together current and former holders of FEBS Long-Term Fellowships to showcase their work, meet and interact with other Fellows, share their respective postdoctoral experiences and further discuss career development and opportunities. After editions organized in Spain (2012), France (2014), Israel (2017) and Poland (2019), the 5th FEBS Long-Term Fellows Meeting was jointly held with the IUBMB–FEBS–PABMB Young Scientists' Forum (YSF) in Vimeiro, Portugal from 6th to 9th July 2022.

The event was brilliantly organized by the FEBS Fellowships Committee Chair Alain Krol (Strasbourg, France) and Vice-Chair Jolanta Jura (Krakow, Poland), with the help of the FEBS Fellowships Office Assistant Yifei Liu (Strasbourg).

The scientific content of the meeting was divided into six distinct sessions entitled Host–Pathogen Interactions; Cell Proliferation & Differentiation;

Gene Expression & Imprinting; Protein Homeostasis, Metabolic changes & Signalling; RNA–Protein Interactions in Health & Disease; and finally, Tools for The Future.

Throughout these three days, 14 recent former FEBS Long-Term Fellowship recipients joined to present their work and highlight their major findings. Their enthusiasm was as good as the scientific quality of the talks, which mixed together created a unique and friendly atmosphere. Furthermore, this adventure continued for another five days since most of the Fellows stayed together in Lisbon to attend the IUBMB–FEBS–PABMB 2022 Congress and present their work to the broad audience of molecular life scientists there.

What a wonderful experience for our Fellows and the FEBS community, which calls for more editions!

Mariia Efremova and Pierre Santucci, FEBS Fellows



Participants at the FEBS Fellows Meeting 2022. (top row, from left) Pierre Santucci (London, UK), Veronica Miguel (Aachen, Germany), Yan Ma (Lausanne, Switzerland), Jolanta Jura (Krakow, Poland), Jailson Brito Querido (Cambridge, UK), Valentina Sica (Barcelona, Spain), Geula Hanin, (Cambridge, UK), Irma Querques (Zurich, Switzerland), Guido van Mierlo (Lausanne, Switzerland), Vera Wiersma (Zurich, Switzerland), Alain Krol (Strasbourg, France), Faidon Zacharias Brotzakis (Cambridge, UK). (bottom row, from left) Yifei Liu (Strasbourg, France), Ana Queiros (Lisbon, Portugal), Lorea Valcarcel-Jimenez (Cologne, Germany), Mariia Efremova (Eindhoven, the Netherlands), Miguel Palomino-Segura (Madrid, Spain).

# FEBS Diplôme d'Honneur (Lisbon, 2022)

The FEBS Diplôme d'Honneur, which honours biochemists and molecular biologists who have given outstanding service to FEBS, was presented at the IUBMB–FEBS–PABMB Congress to László Fésüs (Debrecen, Hungary), who among other contributions was Chair of the FEBS Publications Committee 2012–2020, and Winnie Eskild (Oslo, Norway), who has worked across different committees of FEBS over several years, including finance and education.



# FEBS Medal Winners (Lisbon, 2022)

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 – Cecília Rodrigues (Lisbon, Portugal), Stefan W. Hell (Göttingen, Germany) and John F. Cryan (Cork, Ireland) – were honoured at the IUBMB–FEBS–PABMB Congress, where they each delivered a plenary lecture.



#### Sir Hans Krebs medal: Cecília Rodrigues

**Cecília Rodrigues** received her PhD in pharmacy (biochemistry) from the University of Lisbon, Portugal for work at the University of Cincinnati, USA, and conducted postdoctoral research at the University of Minnesota, USA. In 2009, she was appointed full professor at the Faculty of Pharmacy, University of Lisbon. In addition to her career in higher education and research institutions as head of department, director of research centre, coordinator of PhD and MSc programmes in biopharmaceutical innovation, and more recently as vice-rector of research and innovation at the University of Lisbon, Cecilia

Rodrigues shares her time between university teaching and investigation in translational drug and biomarker discovery. She has supervised national and international students and postdoctoral scientists, and secured training and research funding from national and EU sources and through private investment. Her research has developed promising technologies protected by global patents and explored by spin-offs that have moved to clinical trials worldwide. She is a past governing board member of the European Association for the Study of the Liver and present associate editor of *Hepatology* journal.

Congress plenary lecture: Metabolic liver disease: leaping forward



#### Theodor Bücher medal: Stefan W. Hell

**Stefan W. Hell** is a scientific member of the Max Planck Society and a director at both the Max Planck Institute for Medical Research in Heidelberg, Germany and the Max Planck Institute for Biophysical Chemistry in Göttingen. Stefan Hell received his doctorate (1990) in physics from the University of Heidelberg. From 1991 to 1993 he worked at the European Molecular Biology Laboratory, also in Heidelberg, and then at the University of Turku, Finland, between 1993 and 1996, with a stay at the University of Oxford, UK in 1994. In 1997 he was appointed to the Max Planck Institute for Biophysical

Chemistry in Göttingen, where he has built up a research group dedicated to sub-diffraction-resolution microscopy. Stefan Hell is credited with having conceived, validated and applied the first viable concept for breaking Abbe's diffraction-limited resolution barrier in a light-focusing microscope. He has received several awards, including the 2014 Kavli Prize in Nanoscience and the Nobel Prize in Chemistry.

Congress plenary lecture: MINFLUX and MINSTED provide molecule-scale resolution in fluorescence microscopy



#### Datta medal: John F. Cryan

**John F. Cryan** is Vice President for Research & Innovation at University College Cork (UCC), Ireland and is also a Principal Investigator in the APC Microbiome Institute, Cork. His current research is focused on understanding the interaction between brain, gut and microbiome and how it applies to stress, psychiatric and immune-related disorders at key time-windows across the lifespan. John Cryan has published over 550 papers and is a Senior Editor of *Neuropharmacology* and of *Neurobiology of Stress*. He is on the editorial board of a further 15 journals. He has co-edited four books and is co-author of the

bestselling "The Psychobiotic Revolution: Mood, Food, and the New Science of the Gut-Brain Connection" (National Geographic Press, 2017). He has received numerous awards including UCC Researcher of the Year in 2012, the University of Utrecht Award for Excellence in Pharmaceutical Research in 2013 and UCC Research Communicator of the Year 2017, and he was named on the Thomson Reuters Highly Cited Researcher list in 2014 and Clarivate Analytics Highly Cited Researcher list in 2017 through to 2020. He was elected a Member of the Royal Irish Academy in 2017. He also received a Research Mentor Award from the American Gastroenterology Association and the Tom Connor Distinguished Scientist Award from Neuroscience Ireland in 2017, and was awarded an honorary degree from the University of Antwerp, Belgium in 2018. He was a TEDMED speaker in Washington in 2014 and is Past-President of the European Behavioural Pharmacology Society.

Congress plenary lecture: Gut microbiota: fellow travellers that regulate brain and behaviour across the lifespan



## FEBS | EMBO Women in Science Award 2022

The FEBS | EMBO Women in Science Award recognizes the exceptional achievements of a female researcher in the life sciences. The 2022 award was presented to Erin Schuman (Frankfurt, Germany) at the IUBMB–FEBS–PABMB Congress, where she delivered a plenary lecture.

**Erin Schuman** received her PhD in neuroscience from Princeton University and conducted postdoctoral research in the Dept of Molecular and Cellular Physiology at Stanford University, USA. In 1993, she was appointed to the Biology Faculty at the California Institute of Technology, and from 1997 to 2009, she was an investigator at the Howard Hughes Medical Institute. In 2009, she moved to Frankfurt, Germany with her husband Gilles Laurent to design and found the new Max Planck Institute for Brain Research. She has been an EMBO Member since 2014 and received the Salpeter Lifetime Achievement Award of the Society for Neuroscience in 2018. In 2020, she was awarded the Louis-Jeantet Prize for Medicine as well as the ALBA-FKNE Diversity Prize, and was elected to the US National Academy of Sciences. Erin



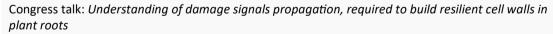
Schuman has a long-standing interest in molecular and cellular processes that control protein synthesis and degradation in neurons and their synapses. The complex morphology of neurons, with most synapses located hundreds of microns from the cell body, presents a logistical challenge for synaptic proteomes. Neurons have solved it by localizing important cell biological machines within dendrites and axons. Following her discovery in 1996 that proteins made locally in dendrites are required for synaptic plasticity, Schuman has pursued the identification of the mRNA and ribosome populations in dendrites and axons. She also elucidated the population of mRNAs translated in subcellular compartments as well as the nature and format of ribosomes. Schuman has developed platforms to label, purify, identify and visualize newly synthesized proteins in neurons and other cells.

Congress plenary lecture: Protein synthesis in remote neuronal spaces

## FEBS Anniversary Prize (Lisbon, 2022)

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 among researchers under the age of 40 who are invited to give a lecture at a FEBS Congress. This year's recipient was Peter Marhavý (Umeå, Sweden).

**Peter Marhavý** is a group leader at the Umeå Plant Science Centre at the Swedish University of Agricultural Sciences in Umeå, Sweden. His group studies the mechanisms involved in short-distance cell-to-cell communication in response to localized wound stress in plant roots, using plant parasitic nematodes and a state-of-the-art laser ablation approach.





## FEBS Press Award Lectures (Lisbon, 2022)

**₽FEBS** Journal



The FEBS Journal and FEBS Letters each award a yearly prize to a recent outstanding paper published in the journal, and work from the winning authors is presented as plenary lectures at the ensuing FEBS Congress.

The FEBS Journal Richard Perham Prize 2021 was awarded to Antonio Barbáchano, Alberto Muñoz and co-authors for their paper 'Vitamin D differentially regulates colon stem cells in patient-derived normal and tumor organoids', with Antonio Barbáchano delivering a lecture on the topic at the IUBMB–FEBS–PABMB Congress.

The FEBS Letters Award 2022 went to Nicholas Mullin and Ian Chambers for their paper 'Phosphorylation of NANOG by casein kinase I regulates embryonic stem cell self-renewal'. Ian Chambers presented a lecture on 'Transcription factor control of pluripotency' at the IUBMB–FEBS–PABMB Congress.





The four FEBS Press journals have been central to the development of FEBS and its ongoing activities, not only providing scientists with effective routes for research dissemination and assimilation, but also an income stream to fund the other programmes of FEBS.

In the following pages of this section of *FEBS* News, each of the four FEBS Press journals presents a snapshot of recent and upcoming content, illustrating their continued publication of high-quality original research, reviews and other article types.

The journals welcome submissions from all members of the FEBS community. Check out the box to the right for some of the reasons to consider a FEBS Press journal for your next research article.

#### Support for Open Research

The FEBS Press journals are committed to open research. The recent COVID-19 pandemic has underlined the importance of making research articles and their underlying data accessible to all. Two of the FEBS Press journals – *Molecular Oncology* and *FEBS Open Bio* – are fully open access, while *The FEBS Journal* and *FEBS Letters* are 'hybrid' journals in which authors can opt to make their article open access by paying an article processing charge (APC).

While we have always encouraged authors to make the data underlying their research papers publicly available at the point of publication, we recently changed our <u>policy</u> and now expect data to be shared.

We recognize that some authors struggle to find the funds for open access publication charges. Our publishing partner, Wiley, is working hard to negotiate with libraries and institutes to form 'transformational deals' which allow researchers to both read all of the content in Wiley's subscription journals and have their open access publishing fees covered.

In Europe, currently, arrangements with consortia of institutions in Finland, Germany, Hungary, Ireland, Italy, Norway, Sweden and the UK cover the cost of open access publication in any of the FEBS Press journals. Corresponding authors at participating institutions will not have to pay directly to publish open access. Institutional transformational deals in Austria, Cyprus, Denmark, France, Israel, Netherlands, Slovakia, Slovenia, Spain and Switzerland

### Reasons to submit your work to the FEBS Press journals

#### • Simple submission process

- First submission in any format
- Preprints encouraged

#### • Smooth publication process

- Peer review managed by editorial board members who are experts in your field
- Supporting authors with ethics and research integrity checks

#### Open Science

- Open Access options available, some at no direct cost to authors
- Authors expected to share all their data on publication

#### Widening readership

- FEBS Press journals are well read and accessible
- Promotion of your article in our social media channels

will cover cost of open access publication in either *The FEBS Journal* or FEBS *Letters*. There are also deals with consortia outside Europe. To find out if your institution or funder will cover your open access APC, click <u>here</u>. If your institution is not currently covered by one of these deals, we encourage you to contact your librarian to see if they would consider this.

There are also some automatic discounts and fee waivers available. EACR members are eligible for a 10% discount in the *Molecular Oncology* publication fees. Researchers in Bosnia and Herzegovina, Moldova, Serbia, Tunisia and Ukraine can publish open access without charge in *Molecular Oncology* and *FEBS Open Bio*, while those from Armenia, Georgia and Morocco are eligible for a substantial discount. See <a href="here">here</a> for further information.

Mary Purton, FEBS Press Publisher



#### 皇**FEBS** Journal

The FEBS Journal has recently published several exciting articles and issues to pique the interest of researchers at all career levels.

Are you thinking about writing a review article or perhaps you need some guidance with a current review draft? If so, the article 'How to write a good scientific review article', part of our journal's popular Words of Advice series, is not to be missed.

We have several recent examples of well-crafted review articles in our 'Most-Read' list at present. This includes a review on chloroplast protein import machinery and quality control, by Jean-David Rochaix, a State-of-the Art review focused on the impact of dysregulated mRNA processing and metabolism on senescence and ageing, by Lorna W. Harries, and a State-of-the-Art review on the intestinal immune system and gut barrier function in obesity and ageing, by Daniel A. Winer and colleagues.

Our journal's most recent Special Issues are also worth a read. An issue focused on Infection and Immunity, introduced by Inna Afonina and Eik Hoffmann, highlights the roles of various immune cell populations, the regulation of innate and adaptive immune responses, novel concepts in host defence and inflammatory signalling, and potential targets for future therapeutic interventions. This inspiring article collection includes, among others, a review on the biology and therapeutic potential of human innate lymphoid cells and an overview of the roles of the Hippo signalling pathway in modulating immune response and tissue repair.

Look out also for an upcoming Special Issue on the broad topic of Organelle Homeostasis, which will include reviews on the mitochondrial permeability transition and on membrane protein biogenesis at the ER, and more. We have also recently compiled a collection of articles focused on Muscle



Biology and Disease, introduced by Editorial Board Member Daniel Michele. This extensive collection highlights articles that review or investigate some of the key mechanisms of muscle repair and regeneration in response to injuries, and the contributions of these pathways to health and disease of skeletal muscle.

Also not to be missed is an <u>interview-based</u> article featuring Peter Macheroux, Professor of Biochemistry and Head of the Institute of Biochemistry at Graz University of Technology in Austria, who gives an insightful view into his research, recalling some of his great scientific breakthroughs and describing the key current challenges in his research field.

The FEBS Journal Editorial Team

#### FEBS Letters

A lot of interesting content has been brewing in the FEBS Letters cauldron lately!

For the plant biologists among you, we published in September a Special Issue entitled <u>Plant</u> autophagy and intracellular trafficking containing 17 cutting-edge reviews that highlight recent discoveries in mechanisms, functions and regulation of autophagy and endomembrane

trafficking in plant cells. The Special Issue is guestedited by Diane Bassham, from Iowa University, USA, whom we thank for the fruitful collaboration.

The FEBS Advanced Course 'Microspectroscopy: functional imaging of biological systems', organized by Jan Willem Borst in collaboration with Jack Fransen, Stefanie Weidtkamp-Peters and Yvonne Stahl, took place in Wageningen, Netherlands, in September 2022. The course combined lectures with practical sessions to familiarize participants with sensitive techniques to image biochemical

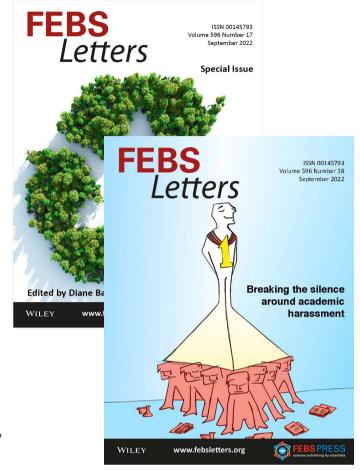


processes in living cells. In our <u>October issue</u>, we published a related collection of three Reviews, showcasing state-of-the-art imaging approaches and image analysis tools. We thank Jan Willem Borst and colleagues for guest-editing this collection.

Mitochondrial biology has always been a central topic in *FEBS Letters*, and we are keen to contribute more to the field. We have collected for you our recent mitochondrial biology papers in one <u>virtual issue</u>, where mitochondria specialists and curious readers can find some interesting reports. This is an open issue, which keeps growing with all the articles that flow in in response to our call for papers. Would you like to add your paper to this collection?

Finally, don't miss our Scientists' Forum article on academic bullying, which is receiving a lot of attention on the social media. Morteza Mahmoudi, co-founder of the Academic Parity Movement, and collaborators, authored Breaking the silence around academic harassment, a brave report on why academic bullying is still undefeated. Stay tuned for more articles on this theme, to be published in *FEBS Letters* very soon.

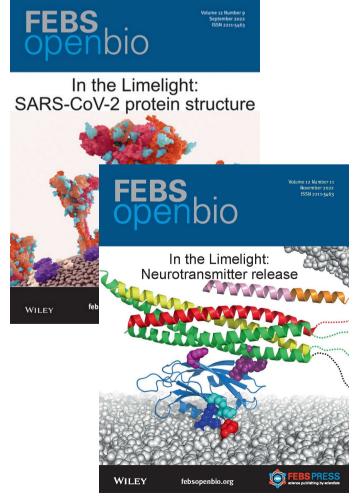
Daniela Ruffell Managing Editor, FEBS Letters



## FEBS openbio

In 2021, FEBS Open Bio started to publish special 'In the Limelight' issues, featuring review articles centred around a topic of interest. Our September 2022 special issue put the structures of SARS-CoV-2 proteins in the spotlight. In his opening editorial, guest editor Alex Wlodawer introduces the issue's three review articles, which describe the structure and function of ribonucleases (Robin Stanley), viral and cellular translation during SARS-CoV-2 infection (Franck Martin), and the structure of the spike glycoprotein (Xinquan Wang). Alex Wlodawer and the corresponding authors also participated in a roundtable discussion on this topic in the first FEBS Open Bio webinar, which was held earlier this month; the recording of this webinar will soon be available.

In November 2022, our 'In the Limelight' issue focuses on neurotransmission: guest editor Josep Rizo discusses the important role that <u>structural</u> <u>biology has played in uncovering the mechanisms underlying neurotransmitter release</u>, while highlighting the limitations of this approach. In the other review articles in this issue, Frédéric Pincet





and colleagues use experimental data and simple physics and chemistry models to analyse the kinetics and energetics of the entire fusion process, and Shen Wang and Cong Ma describe the current understanding of how the Munc18-1 and Munc13-1 proteins guide neuronal SNARE complex assembly.

FEBS Open Bio has recently started publishing a new article type: Research Protocols. These articles describe an experimental protocol in more detail than that typically included in the methods section of a research article, providing a comprehensive list of all required reagents, a step-by-step procedure, and a troubleshooting section. We hope that the publication of Research Protocols will play a part in

countering the life sciences reproducibility crisis, by giving researchers a platform to share their experiences and expertise in how to reliably perform technically challenging protocols. All Research Protocols undergo vigorous peer review to ensure they make a meaningful contribution to the scientific community and are based on robust methodology, sound ethical standards, and careful interpretation of data. Do you have a favourite research protocol that you'd like to share? If so, then do consider submitting a Research Protocol to the journal.

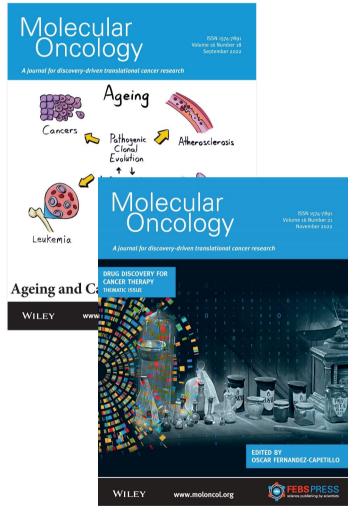
Duncan Wright Managing Editor, FEBS Open Bio

## Molecular Oncology

While *Molecular Oncology* differs from the FEBS Press portfolio journals via an exclusively cancer-specific scope, the focus of our two latest thematic issues could not have been more biochemical.

A thematic issue edited by the journal's Section Editor Peter Adams and his colleagues from Sanford Burnham Prebys Medical Discovery Institute (La Jolla, USA), Aaron Havas and Shanshan Yin, addresses the molecular components of the complex relation between ageing and cancer. Eight open access review articles discuss how somatic mutational landscapes, autophagy, mitochondrial genetics, metabolic reprogramming, DNA repair pathways, telomere instability, or cellular senescence and the tumour microenvironment could explain the increase of cancer incidence with age. This issue highlights how core biochemical research can be translated to transform cancer prevention and early cancer detection in ageing individuals.

Advances in the treatment of cancer rely equally on addressing the biochemical basis of disease through either targeted approaches or large-scale drug screens. The <u>thematic issue</u> on drug discovery for cancer, which was compiled by the *Molecular Oncology* Section Editor Oscar Fernandez-Capetillo, highlights some of the most recent advances in the field, spanning from targeting individual biochemical pathways, such as those of <u>senescence</u>, downstream of the proto-oncogene <u>c-MYC</u>, or the DNA damage repair response in <u>primary</u> and <u>resistant tumours</u>, to systematic approaches including <u>fragment-based drug discovery</u>, <u>CRISPR-based screens</u> and <u>biocomputational analyses</u>.



We invite FEBS members to explore the *Molecular Oncology* website for further interesting content, including discussions about how researchers can contribute to <u>European Science</u> <u>Policy</u> or <u>article collections</u> on specific cancer types, including breast cancer and haematological malignancies.

Maria Papatriantafyllou Managing Editor, Molecular Oncology



## **Bringing FEBS Societies together**

Many FEBS activities facilitate connections and scientific exchange across countries, most notably the FEBS Congress, but this section of *FEBS News* presents three particularly aimed at increasing interactions between the various Societies that belong to FEBS: FEBS3+ Meetings, the FEBS Junior Sections initiative, and FEBS Education Ambassadors.

For FEBS3+ Meetings, FEBS provides a grant for event organization and travel awards to facilitate a joint scientific meeting between three or more FEBS Constituent Societies in a particular region of the FEBS area or connected in some other way, as illustrated by the meeting report below from the recent Estonian–Latvian–Lithuanian meeting. 'FEBS Junior Sections' is a new bottom-up initiative empowering young members of FEBS Societies and facilitating inter-Society connections at an early-career level, for example through the organization of regular online talks. Lastly, the FEBS Education Ambassadors project brings together representatives from each FEBS Constituent Society interested in university teaching, learning and training to catalyse sharing of best educational practice.

# Estonian-Latvian-Lithuanian FEBS3+ Meeting

15–17 June 2022 Tallinn, Estonia

#### The venue

The 2022 Baltic FEBS3+ Meeting took place in Estonia at the Tallinn University conference center, conveniently located near Tallinn's city center and just a walking distance away from the beautiful medieval Old Town.

#### The conference in numbers

The three-day event brought together biochemists and molecular biologists not only from the Baltic states but also from Finland, Sweden and even as far as the USA. Out of the 210 registered attendees, 90 participants were from Estonia, 38 from Latvia and 58 from Lithuania. The conference was furnished with 50 scientific talks, which included four plenary talks, a FEBS National Lecture (see page 22), 11 talks from graduate students, 38 talks from PhD-level scientists, and 77 posters. The talks were distributed into six single and two parallel sessions.

#### **Industry support**

Local industry had a substantial role in the successful execution of the conference, not only through sponsoring the event but also through contribution to the scientific program in the form of talks and through judging posters and giving out the best poster prize (Solis BioDyne OÜ).

# Food, drink and socializing

Following the scientific talks of the opening day, all guests were invited to participate in a welcome dinner in the Old Town at the Maikrahv restaurant, where food and drink were served in a period setting.

Attendees were entertained by a small folk troupe and had a chance to learn

local folk dances. Throughout the conference, the participants were treated to delicious lunches and filling coffee breaks. Due to the long break in in-person meetings due to the COVID-19 pandemic, the local companies were especially eager to pitch in and contribute to an all-around enjoyable event for everybody. For example, Lanmer organized a happy-hour for the attendees following the talks of the second day.

#### Focus on bioeconomy

The European Green Deal is truly a big deal, where biochemists and molecular biologists have a massive role to play. The development of a sustainable bioeconomy relies on scientists to come up with ways for effective manipulation of microbes for the conversion of biomass to platform chemicals and also strategies for the



biochemical modification of biomass to replace technologies thus far associated with fossil-based raw materials. Thus, things like microbial and protein engineering, ways of probing protein-ligand interactions as well as industrial enzyme production all feed into the technical landscape required to achieve the goals of the Green Deal. Three out of the ten sessions (almost a third) of the conference were dedicated to topics related to applied sciences - i.e. protein design and production, synthetic biology and enzymatic conversion technologies of biomass.

#### FEBS3+ format

Starting from 2018, where the idea of applying for FEBS support to organize a joint conference of Baltic biochemists was first tossed in the air, the ties and collaborations between the Baltic



biochemists have truly flourished. The postponement of the meeting in Tallinn for two consecutive years due to the pandemic meant the 2022 event was the more appreciated by scientists as well as companies who had eagerly waited to showcase their products and advances in instrumentation development. The

meeting in Tallinn proved once more that FEBS3+ is an excellent format for bringing scientists as well as companies together for excellent science, networking and cultural immersion.

#### **Thanks**

In order to keep the registration fees down and encourage participation,

additional financial support was provided by Tallinn University of Technology, the Estonian Academy of Sciences as well as nine Estonian life sciences companies: Solis Biodyne, Lanmer, Quantum, Biotecha, Ordior, Nova, Icosagen, HNK Analüüsitehnika and G.W. Berg.

Tiit Lukk President, Estonian Biochemical Society

## FEBS Junior Sections - engaging the next generation

#### The story so far

Students and young researchers from some of the FEBS Constituent Societies came together in 2021 to create the FEBS Junior Sections. Their aims were to connect, collaborate, increase mobility, and encourage other young scientists to join their initiative.

Initially comprising Junior-GBM (Germany), ÖGMBT's Young Life Scientists Austria (YLSA), and SIB Sezione Giovani (Italy), they were soon joined by the SEBBM Junior Consuls (Spain), Young NVBMB (the Netherlands), HDBMB Young Scientists' Forum (Croatia), and the Biochemical Society's Early Career Advisory Panel (UK).

The FEBS Junior Sections want to encourage other national Societies to set up a Junior Section and join them. To increase their visibility, they organize online talks, promote their initiative at national and international conferences, and contribute to the FEBS Network, such as with the series of posts and videos describing their respective Junior Sections and suggestions on how to set one up.

The <u>series of online talks</u> has been particularly successful. Apart from giving them the opportunity to practise organizing online events – from finding a speaker and setting up the talk, to promoting and hosting it – it also helps them reach other students and young researchers.

The Junior Sections take turns to organize a talk each month, on an academic or a career topic. They generally host a speaker from their own country, though not always, with the SEBBM Junior Section arranging a career talk with Andreas Laustsen, from Denmark, to find out how had he managed to set up six biotech start-ups by the time he was 30 years old: getting over 500 registrations for the talk showed that they were not the only ones interested in the answer. You can watch the recording of the talk <a href="here">here</a>.

Last September, the Junior Section from the Croatian Society, HDBMB, organized a great <u>talk</u> with Iva Tolić, from the Ruđer Bošković Institute in



Zagreb, on the mechanobiology of mitosis and its role in mitotic fidelity. The Q&A session was so engaging that the speaker praised the high quality of the questions. You can watch the recording of that talk here.

Promisingly, all these activities have encouraged young members from other national Societies to liaise with their Boards to explore whether creating a Junior Section is an option for them.

# But what exactly is a Junior Section and why would you want one?

Let's start with the why. On the face of it, this might seem like a lot of unnecessary work. Most Societies already have students and young members. Many also support these young scientists in various ways, such as with grants, prizes, or training opportunities. Membership of the Society is open to interested students and young researchers, and is often discounted. Plus, everybody is very busy and starting a new initiative might not be a priority in the Society, or even feasible with current resources.

Each Society's needs and circumstances will be particular to them, but there might be a couple of situations where a Junior Section could be a good idea. One is if membership is dwindling (especially in younger members); the other is if the Society has many young members but they are not active or, if they are active, they are disconnected from each other.

It might seem counterintuitive to start a Junior Section when the Society has few young members or if they are not particularly active. In those cases, it might be better to find a couple of motivated young members and explore options with them. A



Junior Section does not have to start as, or even ever be, a formal section in the Society. Indeed, as that might require changing the statutes, this option might never be suitable for some organizations. But it can be a group or team of young members who agree on which activities their peers will be interested in, and have the time and energy to develop them.

What is important is that they feel they have some freedom to choose those activities (from within the Society's objectives, of course), as well as support from the Society. This is important as students and young researchers might not always understand why they should be part of their Society or, if they do,

might feel inhibited to join or to be active. Knowing that they are actively welcomed – and encouraged (and supported) to contribute to the Society's objectives and activities – can be very motivating.

The actual form that this group or section eventually takes will depend on the circumstances of each Society. Luckily now there is a FEBS Junior Sections that can help with questions and suggestions: encourage your young members to contact them at juniorsections@febs.org to find out what can be done!

Fiona Veira-McTiernan FEBS Communications and Digital Platforms Associate

#### **FEBS** Education Ambassadors



The FEBS Education Ambassadors initiative brings together enthusiasts and experts in teaching, learning and training in the molecular life sciences from across the FEB Constituent Societies, under the roof of the FEBS Education Committee. Each Society can nominate one representative as their 'ambassador'. The project creates an international network of educators to support one another, and share solutions and best practice in education at undergraduate level and beyond across FEBS countries.

A highlight of the initiative is an annual meeting to report and discuss educational issues, which after a virtual event in 2021 could take place in person again in 2022. It was held in sunny Izmir, Turkey, 19–20 May 2022, and 28 Education Ambassadors joined FEBS Education Committee members for the event (pictured above). The meeting included talks on good educational practices from five ambassadors – spanning training for lab work to

student engagement – as well as workshops on how to organize and promote education events, and a brainstorming session on topics such as education evaluation and postgraduate programs. The second day also featured lectures on educational research and on molecular bioscience degree accreditation. The participants particularly enjoyed the networking opportunities that the meeting offered. Find a more detailed report on the FEBS Network site <a href="here">here</a>.

Between meetings, Education Ambassadors can use a special mail group, as well as the FEBS Education Platform and the FEBS Network to exchange ideas and communicate. They can also apply for a FEBS grant to run an education-focused event at the national Society level in their own country. Look out for announcements in the FEBS website's education section for these soon.

Ferhan Sağın Chair, FEBS Education Committee



## FEBS Excellence Awards and FEBS Fellowships

#### **FEBS** Excellence Awards

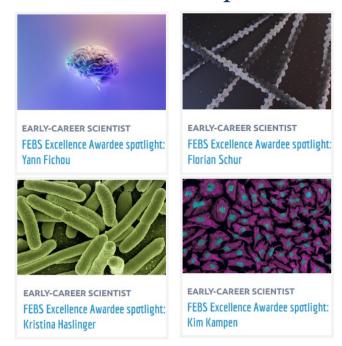
This prestigious new programme at FEBS, launched in 2021, aims to support highly competitive research in molecular life sciences. The FEBS Excellence Awards provide €100,000 funding over three years to early-career group leaders working in a FEBS country to purchase laboratory equipment and consumables. Nine early-career group leaders were selected for support in the first year of the scheme, and ten applicants have recently been awarded from the 2022 call. You can find brief insights into the research of four of the 2021 awardees on the FEBS Network site, along with some career tips from them, by clicking on the panels to the right.

The next call for FEBS Excellence Award applications is expected to run in 2023 from spring to **1 July 2023**. It usually takes less than 4 months between closure of the call and notification of the outcomes to applicants. Note that applicants must be established as PIs in a salaried capacity.

#### **FEBS** Fellowships

FEBS Fellowships provide stipends 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. Three FEBS Fellowship schemes are currently open for applications:

- 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 six years or have at least one published paper as 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 now early/mid-career PhD holders, of certain FEBS countries with Hinari (Research4Life) status.

• Ukrainian Short-Term Fellowships were introduced in spring 2022 to help scientists in or displaced from Ukraine. They support visits to a host laboratory for up to 4 months. The decision for acceptance is given rapidly: applicants are usually informed within 3 weeks of the date of application.

Look out for the launch of the next call for **Summer Fellowships**, expected to open in early 2023 with a deadline of **1 May 2023**. Summer Fellowships are for research visits by young promising PhD or Master students.

Full details of these schemes can be found in the FEBS website's <u>Fellowships section</u>.

Alain Krol Chair, FEBS Fellowships Committee

# FEBS Science and Society: call for Constituent Society proposals

A Science and Society session at the IUBMB–FEBS–PABMB 2022 Congress, organized by the FEBS Science and Society Committee, explored the topic of 'RNA solutions to genetic and infectious diseases'. The RNA molecule is nowadays being used for the prevention and treatment of infectious diseases and rare genetic diseases, but also for diseases such as cancer or neurodegenerative diseases.

To build on this Congress session topic and reach a wider audience, the committee now invites proposals from FEBS Constituent Societies to run a 'science and society' event or activity in 2023 under the same theme. The exact format of the event/activity is up to the organizing Society and the committee would like to support a range of activities from speaker events to educational activities, including for public engagement on this issue. Up to €1500 is available from FEBS to support this event/activity. More details including how to apply are on the FEBS website <a href="here">here</a>. The deadline is 15 January 2023.

FEBS Science and Society Committee



## FEBS-IUBMB-ENABLE conference series



At the time of writing, preparations for the <u>first FEBS-IUBMB-ENABLE</u> conference ("The perfect tandem: How technology expands the frontiers of biomedicine") are

at their final stages and we look forward to an exciting event later this month for over 200 PhD students and postdocs from many countries, hosted by the Institute of Biomedicine of Seville (IBiS) in Seville, Spain. As well as providing a grant for organization, FEBS is funding over 50 travel grants.

This conference series builds on previous ENABLE meetings funded in the European Commission's Horizon 2020 programme as institute-based events that empower early-career researchers in the organization. With the support of representatives from the previous institutions that have held ENABLE meetings, as well as guidance

from FEBS and IUBMB, PhD students and postdocs from IBiS have risen to the challenge to plan and deliver the conference largely themselves, including management of the programme, budgets, promotions and abstracts. The event includes a scientific symposium with renowned international speakers as well as short talks from participants. In addition, activities focused on development of young scientists' careers and on employment opportunities will be offered through a career day, with workshops, chats and an opportunities fair. There are also outreach activities and an interesting social programme.

For early-career researchers who missed registration for this Seville event, stay tuned via FEBS, IUBMB and ENABLE websites and on social media for more announcements about the autumn 2023 FEBS-IUBMB-ENABLE event, which will be hosted by the University of Cologne, in Germany. Registration is expected to open in the early summer of 2023.

Irene Díaz-Moreno, Chair, FEBS Working Group on the Careers of Young Scientists Jerka Dumić, Chair, FEBS Working Group on Integration

#### The FEBS Network

The <u>FEBS Network</u> platform presents a wide range of content to support, interest and update the molecular life science community – posts span soft skills, career advice, opinion, news, researcher interviews, teaching tips and more. Contributions are grouped into the site's four main themed 'channels' – Early-Career Scientist, Educator, Viewpoints and Research – and certain 'rooms'. A few recent posts are highlighted below as examples.

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. And if you have a suggestion for interesting and useful content for molecular life scientists that you would like to see on the site, or would like to contribute a post or video yourself, do get in touch with comms@febs.org

FEBS Network Working Group

The skills and experience needed for successful clinical trials, Carolin Häussler and Anne Assmus

The next generation of CRISPR tools, Lluis Montoliu

What is science art and why does it matter? Elisabeth Kugle

MOSBRI - The MOlecular-Scale Biophysics Research Infrastructure, MOSBRI

Scientists going above and beyond, Kasturi Mahadik

Professional masochists, Brooke Morriswood

Structural analysis of functionally diverse and structurally polymorphic amyloid assemblies, Wei-Feng Xue

Why and how should you start learning bioinformatics?, Fernando Pozo

Integrating Augmented Reality into bioscience education, Robbie Baldock



#### **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. Recent FEBS National Lectures, some postponed from previous years due to the pandemic, are summarized below.



Prof. **Thierry Candresse** (a senior scientist at INRA, the French National Agronomical Research Institute) gave a FEBS National Lecture at the 31st Annual Meeting

of the Tunisian Association of Biological Sciences (ATSB) at Hammamet, Tunisia (21–24 March 2022) on 'Viral metagenomics: what have we learned about the plant virome?'. Until 2022, Thierry was the team leader for Plant Virology and Director of the Fruit Biology/Pathology joint Laboratory, INRA/Bordeaux University, France. He focuses on molecular plant—virus interactions, and is currently interested in the development/use of novel approaches for plant virus detection, characterization, aetiology and

ecology through
metagenomics. The ATSB
annual meeting attracted
400 participants from
Tunisia, Algeria, Morocco
and France, and included
plenary sessions from invited
speakers as well as oral
presentations or posters in
various themes including
genetics, virology,
biochemistry and toxicology.

Hatem Fakhfakh
Vice president, ATSB



BIOBIO SEURA About 120 scientists gathered in Kuopio, Finland, 15–17 June 2022, for the multidisciplinary 'Chemical Sciences in

Biological Challenges' symposium, jointly organized with the XLII Finnish NMR symposium and several Finnish scientific societies, including Biobio Society. The event covered a wide range of bio- and chemical sciences, aiming to promote collaboration between disciplines. Biochemistry representation was significant and as a part of that Prof. Finbarr O'Harte from Ulster University, UK (pictured on right of photo, with Hannu Koistinen) gave a FEBS National Lecture about peptide mimetics for treatment of diabetes and obesity. He introduced several peptide modification approaches, which have resulted in peptide analogues showing very potent beneficial effects in preclinical obesity models. Other plenary lectures ranged from drug design and delivery, quantitative NMR and RNA dynamics to 'intelligent' materials. Participants felt that listening to talks representing disciplines many of them perhaps would not normally follow was refreshing and



very stimulating. With high-level science and an ample social program at the beautiful lakeside at Kuopio the symposium was well received and hopefully will be organized again in a couple of years.

Hannu Koistinen Chair, Biobio Society



Dr Andrea Thorn (Universität Hamburg, Germany) gave the FEBS National Lecture at the 25th Sweprot meeting, organized by

the Swedish Society for Biochemistry, Biophysics and Molecular Biology (SFBBM) in Tällberg, Sweden (17–20 June, 2022). The meeting was fully booked with about 165 participants. Andrea presented the work of the 'Coronavirus Structural Task Force' an effort that she is leading. Through a truly impressive team effort, the task

force has worked diligently to provide the world with structural data on the SARS-CoV-2 virus. The lecture sparked many questions, ranging from method development to how team efforts could be more valued within academia.

Ronnie Berntsson Chair, SFBBM







The Latvian Biochemical Society (LaBS) hosted a FEBS National Lecturer at the FEBS3+ Meeting held in Tallinn, Estonia, 15-17 June 2022. Most members of LaBS

were involved in the selection process during a LaBS general assembly, and Prof. Helgi B. Schiöth from Uppsala University, Sweden was invited after discussions about several prominent candidates. The FEBS National Lecture award was presented to him (pictured on right of photo, with Kaspars Tars) during the opening plenary session of the meeting. Helgi gave a highly interesting talk focusing on the identity of drug targets derived from the human genome. While broad classes of drug targets were discussed, in particular he addressed G-protein-coupled receptors (GPCRs), which form the largest set of drug targets within the human genome.

Kaspars Tars, President, LaBS



# SE<sup>V</sup>BBM

Prof. Dario Alessi (MRC Protein Phosphorylation and Ubiquitylation  ${\tt BBM}$  Unit, University of Dundee, UK) gave the FEBS National Lecture at the

44th Congress of the Spanish Society of Biochemistry and Molecular Biology (SEBBM) in Malaga, Spain (6-9 September 2022). In his talk 'Interplay between LRRK2 kinase and Rab GTPases in Parkinson's disease', he discussed the implications of a group of Rab GTPases that are substrates of the leucine-rich repeat protein kinase 2 (LRRK2) for the diagnosis and treatment of Parkinson's disease. The Congress was attended by more than 700 people and included 98 lectures, sessions open to the general public and an exhibition about the Nobel laureate Santiago Ramón y Cajal.

Enrique Viguera, Chair, Organizing Committee





The XVI FISV Congress (Federation of the Italian Life Science Societies, of which the Italian Society of Biochemistry, SIB, is a member), held in Portici (Naples), hosted Prof. Carlo Catapano as a FEBS National Lecturer on 16 September 2022. Carlo

Catapano is Director of the Institute of Oncology Research at Università della Svizzera italiana in Bellinzona (Switzerland). In his keynote lecture 'Mitochondrial plasticity and stemness in human cancers' he described the extensive reprogramming of the epigenetic landscape occurring in tumour cells during the progression to metastatic and treatment-resistant states, and reported results from his group on identification of key epigenetic players in cancer aggressiveness in histone acetylation and methylation pathways. He also discussed the metabolic dependence of epigenetic pathways, often overactive in human cancers, as well as the effect of their genetic knockdown and pharmacological inhibition to counteract tumour cell plasticity and treatment resistance.

The lecture was appreciated by the audience, as revealed by the high number of questions and the high scientific level of the following discussion. It contributed to the excellent scientific level of the Congress, which attracted 600 participants; notably the Italian biochemical community was the

largest in the audience, with 124 participants.



Martino Bolognesi, President, SIB





The Croatian Society for Biochemistry and Molecular Biology (HDBMB) was pleased to host Prof. Irene Díaz-Moreno (University of Seville, Spain)

as the FEBS National Lecturer at the International Congress HDBMB22: From Science to Knowledge (Brela, Croatia; 28 September – 1 October 2022). Her inspiring talk 'Cytochrome c as a cornerstone in the nucleus—mitochondria crosstalk' covered new insights on the roles of cytochrome c in life and death and demonstrated how to combine different research techniques to answer complex scientific questions. The lecture sparked vivid discussion with many questions from the audience. Irene is pictured on the right of the photo with Jerka Dumić from HDBMB and FEBS.

The Congress gathered over 190 participants from Croatia and abroad and presented an opportunity for Croatian molecular life scientists to present and discuss results and



ideas, in both formal and informal environments. We were especially satisfied by the abundance of young researchers and believe they benefited from interaction with established scientists.

Morana Dulić, Vice-President, HDBMB



Prof. Jörg Vogel [Hemholtz Institute for RNA-based Infection Research (HIRI)

and Institute of Molecular Infection Biology, Würzburg, Germany] gave a FEBS National Lecture at the 12th SifrARN meeting, organized on behalf of the French Society for Biochemistry and Molecular Biology (SFBBM) by the ARNA laboratory in Bordeaux, France (3–5 October 2022). The meeting was attended by 166 scientists working on a range of topics in the RNA field. Jörg is one of the founders of HIRI, an institute specifically interested in understanding how and why bacteria use RNA as the main regulator during infection. To achieve those goals, his lab has developed new RNA deep sequencing-based approaches to help measure RNA diversity. Their new milestones are to be able to reach single-cell sensitivity. They target bacteria linked

to human biology and in particular the bacteria present in the human microbiota. In an outstanding lecture entitled 'The promises and challenges of programmable RNA antibiotics' he explained how programmable RNA antibiotics in the form of short antisense oligomers (ASOs) promise to achieve precision manipulation of bacterial communities.



Fabien Darfeuille, Organizing Committee



The Turkish Biochemical Society (TBS) hosted Prof. **Xavier Coumoul** (University Paris Descartes, France), as the FEBS National Lecturer during the 33rd National Biochemistry Congress at

Izmir, Turkey (26–30 October 2022). He is pictured on the left of the photo with Ferhan Sağın at the event.

After a PhD in toxicology, Xavier has worked on the molecular effects of environmental pollutants using several models (cells, invertebrates, mice) and clinical studies. He has focused on dioxins and their receptor the AhR (aryl hydrocarbon receptor), a transcription factor, which is activated by many xenobiotics. His excellent and stimulating talk titled 'Breast cancer: a story of microenvironment and environment' provided new insights on how some chemical pollutants are persistent and can exert their toxicity over the long term by their storage in adipose tissue, which is part of the tumour

microenvironment. Xavier's group was able to correlate clinical and experimental data on the effects of these pollutants and identify certain risk factors for the development of breast cancer metastases. The Congress hosted over 650 participants

OCHE

and was an important opportunity for Turkish biochemists, especially the young researchers, to present and discuss many topics.

Ferhan Sağın, Vice-President, TBS



### Introducing new holders of FEBS Executive Committee roles (from 1 Jan 2023)



#### Prof. Miguel A. De la Rosa FEBS Secretary General

Miguel A. De la Rosa is Professor of Biochemistry and Molecular Biology at the Scientific Research Center "cicCartuja" (University of Seville, Spain & CSIC) and

Vice-President of the Royal Academy of Sciences of Seville. His current research interests are focused on the structure—activity relations of metalloproteins and their involvement in cell life and death.

He received his doctorate in Seville in 1981 and was a postdoctoral researcher at King's College London, UK. He was founding Director of the Biointeractomics Unit and Director of cicCartuja (2009–2018), and President of the Spanish Society for Biochemistry and Molecular Biology (SEBBM) (2008–2012). He has a long involvement in FEBS activities, serving as Chair of the IUBMB–FEBS Congress in Seville in 2012 and FEBS Congress Counsellor 2015–2022, and was appointed as the



Prof. Piotr Laidler FEBS Congress Counsellor

Piotr Laidler is emeritus professor of Jagiellonian University and Chair of Medical Biochemistry, Jagiellonian University Medical College (JUMC),

Kraków, Poland. After obtaining a PhD from the Faculty of Medicine, N. Copernicus Medical Academy in Kraków, he was a postdoc at Purdue University, West Lafayette, IN, USA, and then held a Deutsche Forschungsgeminschaft Scholarship in Biochimie II at Georg August Universität, Göttingen, Germany. Returning to Kraków, Poland, he was Full Professor of Medical Sciences and Head of Institute/Chair of Medical Biochemistry at JUMC (1996–2019), Deputy Dean for international collaboration, Faculty of Medicine JUMC (2002-2008), Head of the Council of School of Medicine in English at JUMC (2002-2012) and Jagiellonian University Vice-rector for Medical College (2012– 2016). His main research interest has been dissimilarities in mechanisms of signal transduction and metabolism between cancer cells and their

first Editor-in-Chief of *FEBS Open Bio* in 2020. He is an elected member of the *Academia Europaea*, Royal Academy of Sciences of Seville and Academy of Sciences of Murcia, and an honorary member with medal of the SEBBM.

#### Aims in this FEBS role

"I am bringing to this role my extensive experience at FEBS, mainly of journals and the Congress, but I will start by listening to everyone and taking a fresh view of FEBS operations. Under the current difficult circumstances, FEBS will need to adapt and meet new strategic challenges. I see important roles of the FEBS Secretary General as leading the overall direction and priorities of FEBS in the longterm, through effective work with the FEBS Executive Committee, and facilitating the smooth running of FEBS as an organization. I am particularly interested in working with others at FEBS to build a more engaged community of FEBS Constituent Societies around its current activities and new initiatives, as well as with other closely related scientific societies and federations."

normal counterparts, including expression and activity of several classes of molecules, and the use of atomic force microscopy in determining biomechanical properties of cancer cells. He is an Honorary Doctor of The University of Edinburgh (2016), and was Vice-president of the Polish Biochemical Society (PBS, 2022), and FEBS Executive Committee Vice Chair (2020) and Chair (2021–2022).

#### Aims in this FEBS role

"It is an exceptional honour and privilege yet great responsibility to be elected as FEBS Congress Counsellor. I have been participating in the organization of numerous national (PBS) and international conferences for many years. I am fully convinced that direct personal contacts and discussions during congresses including FEBS ones are crucial driving forces for the development of science. In the coming years, FEBS will face new challenges resulting from post-pandemic changes in world functioning and a globally unstable political situation. I wish to do everything to let FEBS Congresses run as smoothly as possible and to continue to keep their currently high level for the benefit of international biochemical research."





Prof. Dame Caroline Dean Chair, FEBS Working Group on Women in Science

Dame Caroline Dean investigates how plants use seasonal signals to judge when to flower. This question has taken her into the

study of conserved mechanisms of gene regulation. Her focus is on the intersection of chromatin, transcription, and non-coding RNAs in epigenetic switching, and how these are affected by temperature.

She obtained her PhD in York, UK in 1982, then spent five years in a start-up biotech company in California. Back in the UK, she has been project leader at the John Innes Centre, Norwich since 1988, and is currently also a Fellow at MRC, LMB in Cambridge. She is an EMBO Fellow, Fellow of the Royal Society, Leopoldina Member, and Foreign

Member of the National Academy of Sciences. She has received multiple awards, including the Wolf Prize in Agriculture (2020), Royal Medal (2020), L'Oréal-UNESCO European Laureate (2018), Darwin Medal (2016), and FEBS | EMBO Women in Science Award (2015).

#### Aims in this FEBS role

"I am delighted to become Chair of the FEBS Working Group on Women in Science. I am keen to promote women in molecular life sciences internationally and to contribute to FEBS activities generally. Diversity in science is hugely important if our community is going to be as successful as possible. I have tried to encourage young scientists from a range of backgrounds throughout my career and see the FEBS | EMBO Women in Science Award as a beacon that inspires young women to have the confidence to aim high."

# FEBS Council election outcomes (Lisbon, 14 July 2022)

#### **FEBS** Executive Committee elections

Congress Counsellor:

Piotr Laidler (Poland); first term

Chair, Fellowships Committee: Alain Krol (France); third term

Chair, Science and Society Committee: Emmanouil Fragkoulis (Greece); third term

Chair, Working Group on Integration: Jerka Dumić (Croatia); third term

Chair, Working Group on Women in Science: Dame Caroline Dean (UK); first term

#### Other Executive Committee positions

Chair of FEBS Executive Committee 2023: Janko Kos (Slovenia); Vice Chair. Graça Soveral (Portugal)

Posts start on 1 January 2023. Elected terms for Executive Committee members are for three years, and terms for Committee and Working Group members are for four years. Executive Committee Chair and Vice Chair positions are normally one-year appointments for FEBS Constituent Societies that have organized the most recent two FEBS Congresses. Full current FEBS Committee and Working Group lists are available in the FEBS website's About section.

# New Members of other FEBS Committees or Working Groups

Advanced Courses Committee:

Mateja Manček Keber (Slovenia), Milagros Medina (Spain), Jan Riemer (Germany)

Education Committee:

Francesco Malatesta (Italy), Nino Sincic (Croatia), Ly Villo (Estonia)

Fellowships Committee:

Natasa Poklar Ulrih (Slovenia), Aristidis Moustakas (Greece)

Publications Committee:

Isabel Fabregat (Spain), Rina Rosenzweig (Israel)

Working Group on the Careers of Young Scientists: Anna Jagusiak (Poland), Vlastimil Kulda (Czech Republic)

Working Group on Integration:

Natalija Polovic (Serbia), Rasa Zukiene (Lithuania)

#### **FEBS Constituent Society changes**

The application from the βιος-Society of Biological Sciences in Cyprus (βιος-SBSCy) to join FEBS as the Member Society for Cyprus was approved.

The next FEBS Council meeting will take place on 12th July 2023 in Tours, France following the 47th FEBS Congress. Further details will be sent to FEBS Constituent Societies in early 2023.



## Farewell to Václav Pačes, FEBS Secretary General



After six years at the helm of FEBS, Professor Václav Pačes steps down at the end of the year as FEBS Secretary General, an elected voluntary position. In this farewell interview, he looks back at some of the challenges and highlights.

The early work of Václav Pačes as a PhD student and postdoc spanned 5-azacytidine, bacteriophage assembly and cytokinins, at the Czechoslovak Academy of Sciences (CSAS) and during stints in the USA and Canada. In the late 1970s his attention turned to the newly emerging DNA sequencing methods (his lab at the new Institute of Molecular Genetics, CSAS, provided the full genome sequence of the Bacillus bacteriophage PZA), and his research subsequently moved into developing areas of genome analysis and bioinformatics. He was Director at the new Institute of Molecular Genetics, CSAS (now of the Czech Academy of Sciences) from 1999 to 2005, and other roles have included President of the Czech Academy of Sciences (2005–2009) and Chairman of the Czech Society for Biochemistry and Molecular Biology (1990–2018). Among his awards and

distinctions are EMBO membership, the Academy medal De Scientia et Humanitate Optime Meritis, the Medal of the Academy of Sciences of Slovakia, the Buzzati-Traverso Lecture, and the Mendel medal (Academy of Sciences).

# What experiences led you to the FEBS Secretary General position and why did you decide to take it on?

My first international scientific event was the FEBS Congress in 1968 in Prague. That year was a fantastic time for me and for the majority of Czechs. It was the year of political relief from the tough communist regime. As a PhD student I was involved in preparations of the Congress. I met famous biochemists that I knew from the literature - here they were: Nobel laureates, founders of molecular biology – all of them friendly people. And the result was that I fell in love with FEBS. After my postdoc years in the USA and Canada I returned to Prague and was elected to the FEBS Publications Committee. I also co-organized with Wilhelm Ansorge several FEBS laboratory courses. I was elected as FEBS Secretary General in 2014, taking on the role in 2017.

#### What is the Secretary General role at FEBS?

Various FEBS committees and working groups are tasked with specific programmes of FEBS work such as Fellowships, Advanced Courses and Education, with an overarching FEBS Executive Committee (in turn reporting to a FEBS Council) comprising the Chairs of these groups and additional individuals with specific roles. The committees and working groups consist of colleagues elected by the Council, and this democratic system is very effective – Executive Committee members are excellent people in all aspects. The FEBS Secretary General is an ex officio member of all FEBS committees and working groups and helps to coordinate their activities towards the overall vision of FEBS. He/she is also line manager of the staff

head of administration and is responsible for organization of Executive Committee and Council meetings as part of the formalities of the running of the organization.

# What does a good day for a FEBS Secretary General look like?

I always felt relieved and enthusiastic when a Congress successfully reached its end. I was involved in the preparations of several FEBS and other congresses, conferences and meetings and I know the large amount of work involved and that hurdles often have to be overcome during the preparations, so a well-received Congress feels a significant achievement.

# What makes a good leader and what experiences have influenced your approach to this position?

I was a boy scout. It taught me that to be an effective leader it is important to be first in the position of a subordinate. Later in my life I became a group leader, a director of an institute and also Chairman of the Czech Academy of Sciences. Whether my scout experience made me a good leader must be judged by others.

# It's been a turbulent time for Europe and the world over the period of your leadership. How much have the bigger issues of the day affected your time at FEBS?

The last two years or so were especially demanding due to the COVID-19 pandemic, which required changes in the way FEBS operated as an organization and in the delivery of its programmes. For instance, we had to postpone the FEBS



Congress already prepared by Slovenian and Croatian colleagues in 2020 for Ljubljana, and then in 2021 replace it with a virtual Congress experience. Also, the volatile global economy situation touched FEBS funds for our activities, but fortunately this was overcome thanks to the work of the Finance Committee led by the FEBS Treasurer. More recently, the invasion of Ukraine led to difficult decisions on Society membership of FEBS and a change in future Congress plans, as well as efforts to provide more support for Ukrainian scientists.

# What would you pick out as key achievements during your time as Secretary General?

There are two points that I would like to emphasize. First, I developed further an administration office for FEBS with the key appointment of a Chief Administrator – FEBS is a big organization with 39 Constituent Societies as members and our activities grew considerably, requiring more help from professional administrators. I very much appreciate what this administration does for FEBS, and in particular the Chief Administrator support I have had for the FEBS Secretary General role. A second important decision made was to change the expected in-person FEBS Congress in Ljubljana to a virtual event during the pandemic, as mentioned above. We had little time and were operating in uncharted territory for FEBS, but, working also

with FEBS, the Slovenian and Croatian colleagues and the professional congress organizer C-IN did a marvellous job in creating a novel event experience.

# What do you see as the main challenge in the European research landscape now for FEBS?

The whole scientific community is expecting continued change in publishing research results, particularly with the open access movement. FEBS already has two open access journals – FEBS Open Bio and Molecular Oncology – and The FEBS Journal and FEBS Letters are hybrid. A challenge for FEBS is meeting open access goals while also maintaining an income stream from its journals to allow execution of FEBS' other programmes, most of which are aimed at supporting young scientists.

# What 'words of wisdom' would you like to pass on to the new FEBS Secretary General?

Working and collaborating with nice people is sheer joy. And this was the case of my work for FEBS. Because I know my successor Miguel De la Rosa well, I know that he can keep the spirit of friendship and respect for each other in the FEBS Executive Committee and in the FEBS Council as I tried to do. As you mentioned I worked in turbulent times. My words of wisdom to Miguel are "You will not have your times as FEBS Secretary General much easier".

## Overseeing FEBS 'Women in Science' activities – a reflection



Professor Cecília Maria Arraiano has held the position of Chair of the FEBS Working Group on Women in Science for three elected terms from 2014 to 2022. As she steps down from the position, she reflects on her role at FEBS and progress in gender issues in science.

Cecília Arraiano leads the Control of Gene Expression Laboratory at Instituto de Tecnologia Química e Biológica (ITQB) / Universidade Nova de Lisboa, Oeiras, Portugal. She graduated in Biology from the University of Lisbon and then she became a Fulbright-Hays Fellow and received her PhD in Genetics at the University of Georgia, Athens, USA. After a postdoc also in the USA, she returned to Portugal to set up a new laboratory in post-transcriptional control of gene expression. Her principal interests have been ribonucleases, and understanding of RNA

processing and degradation mechanisms mainly in microbes. She is a member of EMBO, a Fellow of the European Academy of Microbiology, a Fellow of the American Academy of Microbiology, and a member of the Portuguese Academy of Sciences, among other distinctions.

#### How/why did you come to this position in FEBS?

This position in FEBS came by serendipity. I had been a member of the Directive Committee at the Portuguese Society of Biochemistry (SPB), and a member of the FEBS Advanced Course Committee. Consequently, I was interested in FEBS and its role in promoting science and networking, helping scientists in many different ways; by doing this it

also promotes education, development, friendship, and peace in Europe. Later, SPB nominated me for Chair of the FEBS Fellowships Committee but I was not able to stand due to what was considered a conflict of interest from working for the EMBO Fellowships Committee. I was disappointed but... during that year the Chair position of the 'FEBS Working Group on Women in Science' suddenly



became vacant and I was asked by the then FEBS Secretary General to step in for some months. After that I realized much better what the position meant so later I applied for this role and was elected to it. And after all these years I really feel privileged that I could make a difference in this field – I am thankful to serendipity!

# What have been the main aims or activities of FEBS work on 'women in science' in recent years?

They have been to provide visibility to extraordinary women in science who lead us as role models, and to offer seminars and other actions to help women in science from many different cultures, ages and backgrounds – to raise awareness of issues and facilitate networking so one does not feel alone in the fight for equal rights.

# How has your own personal and career experience coloured your approach?

My career experience certainly affected my approach. I never felt directly discriminated against when I grew up even though I lost my father when I was very little. My mother worked hard and in all senses she was a role model for me. However, as I got older I started realizing many small discriminations in many ways. For example, when I applied for a fellowship the panel was all men who asked questions like: Do you have a boyfriend? Will you stop working after marrying? When I was young I would feel 'offended' with the idea of a quota for women when they are equally qualified, but now I think it is the only way to get a proper gender representation. Hopefully in the future things will change and these percentages will not be needed anymore.

# Do you have a female mentor or take inspiration from particular female researchers?

I get inspiration from many female researchers, such as the late Claudina Rodrigues-Pousada, who was a colleague at ITQB NOVA and much involved with FEBS. But not just the ones who get prizes and are role models: I also get inspired by young women who have many personal, financial and cultural difficulties and still they strive to continue. This gives me much personal motivation to carry on.

# Is a focus on women in molecular life sciences still needed?

Career development for women has certainly progressed in the last ten years, and this is mostly due to the awareness of the topic and to the quotas that brought more women to leading positions. However, a strong focus on this area is still needed. Look at what is happening right now in Afghanistan regarding women's education and the human rights for women in Iran. Plus I give two recent sad European examples. First, I was involved in the evaluation of Horizon Europe projects and a 'gender dimension' was only related to the animals in the experiments; the consortia could be 'just men'. Second, I had a scientific project rejected with much lower grades than the previous submission with the misogynistic comment in writing that the project has too many females!!!

# What's your view on prizes in science, particularly for women?

Prizes in science give large attention in the media to the topic and to the people who received them, and when they are women it certainly gives emphasis to role models. The FEBS | EMBO Women in Science Award is a fantastic example. Another is the L'Oréal-UNESCO For Women in Science International Awards. It is impressive to arrive at the Paris airport and see large flags with the female scientists who received the international awards.

# What else should science be doing on diversity, equality and inclusion issues?

Science has to be diverse, equal and inclusive, and we have to stress actions that give equal opportunities to progress in science. I am a biologist and a geneticist, and I am a believer that human survival depends on biodiversity.

#### Any special memories from this time at FEBS?

I mention a couple of sweet memories from my time as Chair of the Women in Science Working Group. After a Congress session on Gender Issues in Science, a young researcher came to me and said: "I was about to quit my career as a scientist, but you and this session gave so much motivation that now I am not going to quit!" And in one FEBS Congress I was delighted to see a man sleeping with a baby on his lap – he was gladly babysitting while the mother was running around sessions! Recently, more men participate in the Congress session on gender issues, and I am glad because we have to work together to strive for equality and change attitudes. I have also enjoyed seeing young women keeping in touch, even from very different countries and cultures, after talks and networking sessions organized for women in science.



### FEBS Advanced Courses 2022–2023

The FEBS Advanced Courses programme funds a range of events across Europe on focused research fields in biochemistry, molecular biology and related disciplines, providing opportunities for learning and training, updates on recent progress, and networking and discussion with peers and experts in a similar research area. 2022 was a bumper year for the programme, with several events that had been postponed since the start of the COVID-19 pandemic, in some cases more than once, finally able to take place in person. Enjoy a flavour of FEBS Advanced Courses in 2022 from two short reports below.

Administration of the second funding round for FEBS Advanced Courses in 2023 is nearing completion and a full list of events will be on the FEBS website by the end of the year. For now you can visit the websites of four 2023 events listed <a href="here.FEBS Youth Travel fund grants">here.FEBS Youth Travel fund grants</a> are available to assist participation of PhD students and postdocs.

The first deadline for applications from expert scientists for organization of events in 2024 is **1 March 2023**. Find application guidelines here.

Beáta G. Vértessy Chair, FEBS Advanced Courses Committee



## 8th FEBS Advanced Lecture Course: Matrix Pathobiology, Signaling and Molecular Targets

Limenas Hersonissou, Crete, Greece 5–10 May 2022

#### **Aims**

The course aimed to cover recent research progress in matrix organization and assembly, cell adhesion, and matrix-mediated signaling, as well as matrix macromolecular effectors, such as proteoglycans and glycans, integrins, growth factors and matrix-degrading enzymes — topics of great importance to understand the maintenance of normal tissue

homeostasis and disease initiation and development that affect cell behaviour.

#### Program features

The meeting brought together scientists from a range of research backgrounds, with approaches discussed at the meeting spanning signalling studies, structure analysis, epigenetics and cell imaging. The program comprised four introductory research lectures and 28 lectures/tutorials from invited experts, as well as 32 selected short talks and 30 posters. Lectures and short talks were grouped into topics such as 'Cell surface, interactions and signaling',

'Matrix organization and assembly' and 'Novel insights in matrix pathobiology regulatory mechanisms'.

'Young Scientists in Action' sessions also included a spotlight on the activities of FEBS, career development after a PhD, mental health, and diversity, equality and inclusion in academia, which sparked a lot of lively and constructive conversations.

The event provided a very friendly and open environment for interactions among the participants, particularly between the young scientists and the outstanding experts, for example through a 'meet the expert' discussion corner. Social events, such as the excursion



to Knossos Palace and Heraklion city, also ensured a 'safe space' for longer and meaningful one-on-one conversations, inquiries and debates. All these led to the establishment of new collaborations and postdoc and/or PhD positions offers from various senior lecturers and PIs.

#### Prizes and other support

Funding from FEBS, as well as other organizations and the private sector, enabled us to provide several young investigator awards for selected talks and posters: prizes were sponsored by The FEBS Journal, FEBS Letters, The American

Journal of Physiology-Cell Physiology and Springer Nature.

The Hellenic Society of Biochemistry and Molecular Biology also sponsored a number of travel grants.

Nikos Karamanos, Course Organizer



### **FEBS Practical and Lecture** Course: Exploring the Human Proteome with Antibodies, Transcriptomics and Mass Spectrometry

Stockholm, Sweden 11–16 September 2022

#### The event in brief

The course brought together 27 students and 28 tutors/lecturers at the Science for Life Laboratory (SciLifeLab) at the Karolinska Institutet campus in Stockholm for a blend of lectures and practical workshops. It was organized by the Royal Institute of Technology (KTH) with support from SciLifeLab experts on the different topics. In (RCP) and Knut and Alice Wallenberg Foundation (WCPR), in addition to that of FEBS.

#### Aims

The aim of the course was to introduce and discuss the latest. most applicable and emerging analysis of the human proteome, including new technology platforms based on antibodies, transcriptomics and mass spectrometry. The course also aimed to explore the 15 million web pages of the Human Protein Atlas resource to analyze the expression and function of the human proteins from different angles.

#### Program features

The one-week program included five keynote lectures presented by world-renowned experts and 23 state-of-the-art tutorial talks by addition, there were four hands-on practical workshops and poster contributions from all participants. All lectures were also provided to the research community using a virtual link. The keynotes included lectures on proteomics by Matthias

Mann (Germany) and Connie Jimenez (Netherlands), genomics by Roser Vento (UK), metabolomics by Jens Nielsen (Denmark) and stem cell analysis by Angus Lamond (UK). The tutorial lectures ranged from tissue, cell and blood profiling using antibodies to AI-based prediction models based on the omics-data sets from the Human Protein Atlas.

#### Special moment

A special moment was the afternoon and evening boat trip in lake Mälaren with a seaview look of the royal residence Drottningholm Palace. The majority of the lecturers were present on the boat and students had ample opportunities to mingle with experts in an informal setting.

Mathias Uhlen, Course Organizer







# The 47th FEBS Congress: an introduction

FEBS 2023, hosted by the French Society for Biochemistry and Molecular Biology in Tours, is now open for registration and abstract submission!

The introduction below sets the scene. Explore the <a href="Congress website">Congress website</a> for more details.

The slogan of FEBS 2023 – 'Together in bioscience for a better future' – neatly encapsulates the bigger aims and ethos for this Congress.

First, it reminds us that, even if working in pure biochemistry, we normally have in mind ultimately societal benefits of research. At FEBS 2023 there will be plenty of focus on traditional biochemistry and molecular biology research but also a sprinkling of topics with more direct application, such as cancer research and future biotech for environmental problems. Second, the slogan alludes to the broader field of molecular life sciences we all share despite our usual focus on particular research areas, and the Congress will be a useful opportunity for connections and updates across different specializations.

Third, the slogan emphasizes the value of gathering together in person at a FEBS Congress – to enjoy international contacts with others from diverse fields as well as with those engaged in similar work, to celebrate achievements, and to be refreshed and inspired in our endeavours on return to the lab. In the early planning of this event a collaborative and inclusive spirit has already been embraced, with the French Society for Biochemistry and Molecular Biology working with the FEBS journals in the programme development, and speaker suggestions invited from all the FEBS Constituent Societies. We look forward to this spirit continuing through to a very welcoming gathering for participants from across the globe and at all career stages.

In the following text we set out some of the opportunities provided by FEBS 2023.

# Enjoy research stories directly from the research leaders behind the work

At the heart of FEBS 2023 is an outstanding invited speaker programme covering important and exciting topics in biochemistry, molecular biology and related areas. Inspiring plenary lectures from renowned researchers (see box on next page) will provide insight into research areas beyond your own, while a choice of exciting symposia are set to provide more specialized updates in focused hot topics. Great care has been taken in deciding on the parallel session topics and invited speakers, drawing also for this event on expertise and contacts at the FEBS journals.

#### Present your own research work

Posters are always an important part of FEBS Congresses, and we have been studying feedback from the last Congress to optimise the poster experience. At FEBS 2023 there will be dedicated poster sessions arranged by topic each full day of the Congress and poster prizes presented by the FEBS Press journals. There are also opportunities to present your work orally in a short format at the event: if you indicate your interest in this during abstract submission, your work can be considered for short talk slots available in the symposia or for



#### **Plenary lectures**



Diet, metabolism and cancer progression, **Karen Vousden**, UK FEBS Sir Hans Krebs Lecture – Opening Plenary



RNA modifications and the genetic code, **Eric Westhof**, France
FEBS Datta Lecture



KRAS mutant cancers: light at the end of the tunnel, **Mariano Barbacid**, Spain *Molecular Oncology* Lecture



Genome regulation during developmental transitions: new views of old questions, **Eileen Furlong**, Germany EMBO Lecture



Ribosome and the protein folding code of translation, **Marina Rodnina**, Germany FEBS Special Lecture



Systematic Cell Biology - Using high throughput screens to reveal the unknown unknowns, **Maya Schuldiner**, Israel FEBS Theodor Bücher Lecture



Molecular mechanisms underlying neurotransmitter release and its regulation, **Jose Rizo-Rey**, USA FEBS Open Bio Lecture



Successive supra-molecular structures that template and position symmetrical SNAREpins for co-operative neurotransmitter release, **James Rothman**, USA IUBMB Lecture – Closing Plenary Lecture

Three more plenary lectures, linked to awards, will be added as the prizewinners are announced.

#### **Call for abstracts**

#### Main abstract deadline: March 9, 2023\*

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

Call for abstracts
Abstract topics

\*The YSF abstract deadline is December 8, 2022

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

#### Connect, chat, and dip into wider topics

Networking is a highly valued part of in-person scientific meetings. FEBS 2023 aims to provide a friendly atmosphere and plenty of opportunities to make new international acquaintances for those coming to a FEBS Congress for the first time – whether this is at your poster discussing your research results or at a lunch break talking about Tours – as well as for catching up with old friends.

Beyond the research-focused plenary lectures and symposia, look out also for sessions or special events on journal publishing and on teaching in the molecular life sciences. You will also be able to explore the products and services offered by exhibitors at the event.

# Enjoy Tours, the Loire valley and perhaps even visit Paris

While our focus is on the science, the location of a FEBS Congress undoubtedly contributes to its atmosphere and the overall experience for participants. FEBS 2023 will be enhanced by the beautiful setting of Tours, a historic and lively university city on the Loire river. Many hotel options are within walking distance of the Congress venue ('The Palais des Congrès de Tours'), which is conveniently located in the city centre by the Tours railway station.

If you are extending your stay, Tours is well placed as the 'gateway' to the Loire valley region with the famous Renaissance Chateaux de la Loire (a UNESCO world heritage site), or for visiting Paris, an hour away by the TGV high-speed train. There is an excellent introduction to the wider region around Tours on the Congress website, written by one of the members of the Organizing Committee.

#### Benefit from Congress support schemes

Scientists under the age of 35 can take advantage of a low registration fee for the event. In addition, researchers submitting an abstract to the Congress may be eligible to apply to one of the event's support schemes, including FEBS and SFBBM 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 2023 (see below), which will take place as a special satellite event just before the Congress in Tours. Those selected to take part in the YSF will receive financial support for participation in the YSF and the ensuing Congress.

In conclusion, we are looking forward to an enjoyable and rewarding gathering in Tours for FEBS 2023, and hope to see you there!

Alain Krol, SFBBM Secretary General FEBS 2023 Chair of the Organizing Committee and Congress Management Board member



## The 22nd FEBS Young Scientists' Forum: apply now!

The next FEBS Young Scientists' Forum (YSF 2023) will be held from 6th to 8th July 2023 just ahead of and in conjunction with the 47th FEBS Congress in Tours, France.

This will be the 22nd edition of the FEBS YSF, once again bringing together about 100 PhD students and young postdocs selected from the FEBS Constituent Societies to present their scientific results and discuss ideas around their research in a friendly, informal atmosphere, before attending the larger FEBS Congress. Participation is supported by a YSF grant from FEBS that covers

supported by a YSF grant from FEBS that covers Congress registration, accommodation for both the YSF and FEBS Congress, and most of the travel expenses.

The venue for the YSF 2023 is the Mercure Tours Nord 4\* Hotel. The event will start with an inspiring opening lecture delivered by Zdenko Herceg from the International Agency for Research on Cancer, World Health Organization (Lyon, France), known for his work on epigenetics and cancer, and then a welcome dinner. Over the next couple of days the scientific programme of the YSF will provide opportunities for all participants to present their research as oral presentations and/or posters, and we are also looking forward to fascinating talks from the keynote speakers (including William F. Martin, from the Institute of Molecular Evolution, Heinrich-Heine-Universität Düsseldorf, Germany, who works at the interface of



evolutionary biology and biochemistry). In addition, 'Careers Skills' sessions will provide advice on key skills and early-career options. Over the course of the YSF there will be plenty of opportunities for participants to enjoy making new international connections and getting to know each other. YSF participants will have the opportunity to enjoy the historical and beautiful town of Tours as well, especially during an interesting social programme planned for them.

More information, including how to apply, can be found in the <u>YSF section</u> of the 47th FEBS Congress website. We are looking forward welcoming you in Tours!

Note the deadline for YSF 2023 applications is **8 December 2022.** 

FEBS YSF 2023 Organizing Committee. Irene Díaz-Moreno (Chair) Elisa Frezza, Anna Jagusiak, Maja Katalinić, Vlastimil Kulda, Nino Sincic, Sonia Trojan





