



# FEBS News

FEDERATION OF EUROPEAN BIOCHEMICAL SOCIETIES

ISSUE 2 (NOVEMBER) 2017

**BIOCHEMISTRY FOREVER  
PRAGUE 20100**

**THE 43<sup>rd</sup>  
FEBS  
CONGRESS**

**JULY 7–12, 2018  
PRAGUE CZECH REPUBLIC**

*See you in Prague!*

**2018.FEBSCONGRESS.ORG**

## Inside this issue:

FEBS 2017 Congress round-up	FEBS Press	FEBS Network	43rd FEBS Congress	FEBS Advanced Courses 2018
<b>Page 3</b>	<b>Page 12</b>	<b>Page 14</b>	<b>Page 21</b>	<b>Page 24</b>

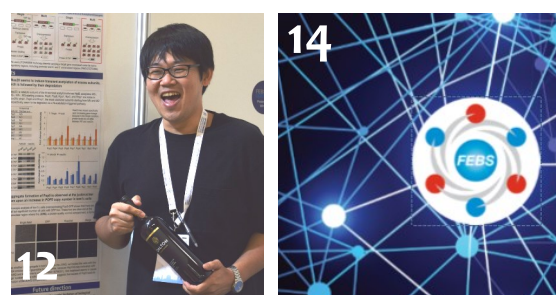


## Contents:

<b>The 2017 FEBS Congress Round-Up</b>	<b>3</b>
Enjoy reports and photos from our big event of the year	
<b>FEBS Press</b>	<b>12</b>
Journal awards and activities at the 2017 FEBS Congress, and recent Special Issues	
<b>FEBS Network</b>	<b>14</b>
Wondering what it is? We introduce this exciting new initiative here	
<b>FEBS Education</b>	<b>15</b>
A look back at key events this year aimed at improving teaching in molecular life sciences	
<b>FEBS Fellowships</b>	<b>17</b>
Featuring recent distinguished Long-Term Fellows	
<b>FEBS Community</b>	<b>18</b>
Constituent Society meetings with FEBS National Lectures, and FEBS Council elections	
<b>FEBS Congress 2018</b>	<b>21</b>
And now to next year... Read about the plans from the Congress Chair and save the dates!	
<b>FEBS Advanced Courses 2018</b>	<b>24</b>
Browse the list of next year's focused-topic courses and meetings across Europe	



**Cover:** Prague, here we come!  
The 2018 FEBS Congress is featured on pages 21–23.



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

**FEBS website postings:** FEBS offers free advertising of academic positions (PhD students, postdocs, etc.) in the [Career Opportunities](#) section of the website, and scientific events can be listed in our [Conference Calendar](#). Selected postings may also be included in *FEBS News*, according to space available. In addition, Constituent Societies of FEBS are able to post news on the FEBS website; see the [Our Members](#) section.

**Federation of European Biochemical Societies (FEBS):**  
[www.febs.org](http://www.febs.org)

**A charitable organization advancing research in the molecular life sciences across Europe and beyond**

A Company Limited by Guarantee (Number 08239097);

A Registered Charity (Number 1149638);

Registered in England and Wales;

Registered office: 98 Regent Street,  
Cambridge, CB2 1DP, UK.



## The 42nd FEBS Congress Jerusalem, 2017

We often heard from colleagues that big conferences covering a broad range of topics do not work anymore and that today only specialized small and medium-sized meetings can be a success. The 42nd FEBS Congress held in a congress center in a central location in lively Jerusalem clearly proved these statements wrong. Fully packed lecture halls from the daily early-bird pre-sessions to late in the evenings, and from the opening ceremony by the Congress Chair Abdussalam (Abed) Azem, the ISBMB President Amnon Horovitz and the FEBS Secretary General Václav Pačes on Sunday 10th September to the closing words of Israel Pecht, the former FEBS Secretary General, on Thursday 14th September, showed that a broad multinational conference still can be an unforgettable event – scientifically, but also in many other ways. We must emphasize, using nomenclature of the conference, that Abed Azem and the other organizers were the chaperones, not only making sure that scientists connected with the science presented, but also that they connected with one another in a delightful atmosphere.

With over 1600 participants from 66 countries this meeting was indeed a very large one, in

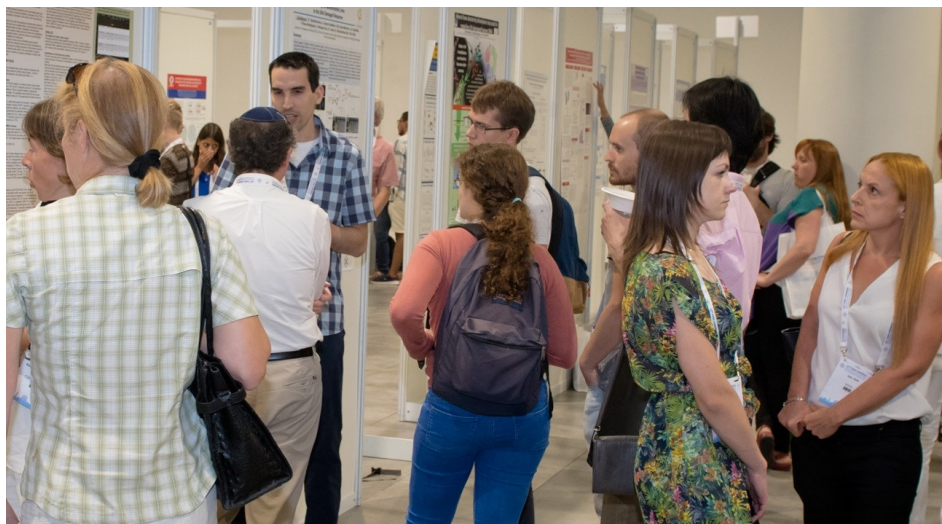






(top row, from left) FEBS Chair Johannes Buchner presenting the FEBS Theodor Bücher medal to opening plenary lecturer Jonathan Weissman; Tang prize / IUBMB plenary lecturer Feng Zhang with PABMB plenary lecturer Marcelo Rubinstein. (middle row, from left) EMBO plenary lecturer Patrick Cramer; FEBS Sir Hans Krebs plenary lecturer Carol Robinson with Congress Organizing Committee member Michal Sharon; closing FEBS Datta plenary lecturer Robert Lefkowitz. (bottom) Delegates mingling in a refreshment break.





(left) Poster session; (right) Congress Chair Abed Azem tries out a prop at the FEBS stand.  
For more Congress highlights, see the [video](#) on the FEBS Network.

particular as most attendees stayed for the entire time and filled the lecture rooms often almost beyond their capacity. The high attendance in all the sessions was certainly due to the very attractive and multifaceted program and the great selection of international speakers, but also due to the very friendly and interaction-stimulating atmosphere of the conference center and the ample amounts of delicious Israeli fresh food, beverages and freshly brewed cappuccino that was served almost all through the conference. Particularly impressive was the welcome reception on the first evening with more than a thousand participants talking, hugging, chatting, meeting and making friends – again with excellent food, drinks and Latin-American live music.

With 127 invited speakers, 83 short talks, 89 speed talks, over 1000 posters and 63 sessions including those on education (with Bruce Alberts as a famous speaker), young investigators, career-planning issues and industry interactions, this FEBS Congress was indeed a mega-event. The presentations showed impressively the rapid developments in all the different areas of molecular biology: high-resolution structures obtained by cryo-electron microscopy and single-electron detectors, system-wide analyses from large-scale DNA, RNA and protein analytics by deep-sequencing and bioinformatics, super-resolution light microscopy, ribosome and polymerase profiling approaches, single-molecule biophysics – to name only a few.

Particular highlights were prize and plenary lectures: the FEBS Theodor Bücher lecture from Jonathan Weissman, who presented his recent discovery of a previously unknown translation error repair system; the FEBS Sir Hans Krebs lecture by Carol Robinson about her breakthroughs in the

analysis of membrane protein complex assemblies by mass spectrometry; the EMBO lecture by Patrick Cramer, who gave fascinating insights into the molecular structures and dynamics of the transcription complexes; the PABMB lecture by Marcelo Rubinstein about the molecular genetics of food intake regulation and obesity; the Tang prize / IUBMB lecture by Feng Zhang about exciting new developments that are now possible by the CRISPR/Cas technology; the *FEBS Letters* award lecture by Jan Löwe on the structure of the cohesion ring; *The FEBS Journal* Richard Perham Prize lecture by Sebastian Bittner who showed exciting data about death receptor 3 signaling; two FEBS|EMBO Women in Science award lectures by Ottoline Leyser regarding strigolactone signaling and Fiona Watt about stem cell differentiation; and last but not least, the FEBS Datta lecture by Nobel prize winner Robert Lefkowitz, who provided very comprehensive and fascinating insights into the role of arrestin proteins in the inhibition and regulation of seven-transmembrane receptors.

The FEBS congress was preceded by the 17th Young Scientists' Forum (YSF), which again proved to be a wonderful opportunity for around 100 young people to meet, explore and share their scientific (and social) interests (see page 10).

The 42nd FEBS Congress was extremely successful and nicely showed that big conferences are still an attractive and healthy format for the future. You should make sure not to miss the next FEBS Congress – in Prague!

*Johannes Herrmann, President of the German Biochemical Society (GBM)*

*Ophry Pines, Scientific Committee, 42nd FEBS Congress*



## FEBS Medal Winners (Jerusalem, 2017)

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 were honoured at the FEBS Congress 2017 in Jerusalem, where they each delivered a plenary lecture. The 2017 medals were awarded to: Carol Robinson, Oxford University, UK (Sir Hans Krebs Medal); Jonathan Weissman, University of California, San Francisco, USA (Theodor Bücher Medal); and Robert Lefkowitz, Duke University, USA (Datta Medal). For more on the medals, see the FEBS website's [Awards section](#).

### Sir Hans Krebs medal: Carol Robinson

**Carol Robinson** holds the Chair of Dr. Lee's Professor of Chemistry at the University of Oxford. She is the first female professor of chemistry there and was previously the first female professor of chemistry at the University of Cambridge. She is recognized for pioneering the use of mass spectrometry for her research into the 3D structure of proteins. Her most recent work is concerned with examining how small molecules, specifically lipids, impact on the structure and function of membrane assemblies. Her research has attracted international awards and prizes including the Anfinsen Award from the Protein Society, the Biemann Medal from the American Society of Mass Spectrometry, the Davy Medal and the Rosalind Franklin Award from the Royal Society, the HUPO Award for Distinguished Achievement in Proteomic Science, and the Anatrache Award for Membrane Proteins from the American Biophysical Society. Carol Robinson also holds three honorary doctorates and received a DBE (British Damehood) in 2013 for her contribution to science.



Congress plenary lecture: *The mass spectrometry of membrane assemblies – a new phase for structural biology*

### Theodor Bücher medal: Jonathan Weissman

**Jonathan Weissman** is a Howard Hughes Medical Institute Investigator and Professor of Cellular and Molecular Pharmacology at the University of California, San Francisco. His development of the technique of Ribosome Profiling, as well as CRISPRi and CRISPRa, giving us the ability to turn on and off any desired gene, are revolutionizing both basic science and medical research. Jonathan Weissman received his undergraduate physics degree from Harvard College. After obtaining a PhD in Physics from the Massachusetts Institute of Technology, where he worked with Peter Kim, Jonathan pursued postdoctoral fellowship training in Arthur Horwich's laboratory at Yale University School of Medicine. Jonathan Weissman's numerous honours include the 2008 Raymond and Beverly Sackler International Prize in Biophysics, election to the National Academy of Sciences in 2009, election as a Fellow of the American Academy of Microbiology in 2010, the 2015 Keith R. Porter Lecture Award from the American Society of Cell Biology, and the 2015 National Academy of Sciences Award for Scientific Discovery.



Congress plenary lecture: *Monitoring protein synthesis in time and space with ribosome profiling*

### Datta medal: Robert J. Lefkowitz

**Robert J. Lefkowitz** is James B. Duke Professor of Medicine and Professor of Biochemistry and Chemistry at the Duke University Medical Center, and an Investigator of the Howard Hughes Medical Institute. Robert Lefkowitz began his research career in the late 1960s and early 1970s, when there was no clear consensus that receptors even existed. His group spent 15 years developing techniques for radioligand binding, solubilization, purification, and reconstitution of the four adrenergic receptors known at the time. In 1986, he transformed understanding of what had become known as G-protein coupled receptors (GPCRs) when he and his colleagues cloned the gene and cDNA for the  $\beta 2$  adrenergic receptor, and recognized its sequence homology with rhodopsin, thus establishing them as the first members of a new protein family, the Seven Transmembrane Receptors (7TMRs). This superfamily is now known to be the largest, most diverse, and most therapeutically accessible. Since then, Robert Lefkowitz has continued to revolutionize the GPCR field through discovery and cloning of the GPCR kinases (GRKs) and  $\beta$ -arrestins, and discovery of 'biased' signaling through  $\beta$ -arrestins or G proteins. Most recently, he has been applying the tools of structural biology to understand biased signaling at atomic level resolution. He has received numerous awards and honours, including the National Medal of Science, the Shaw Prize, the Albany Prize, and the 2012 Nobel Prize in Chemistry. He was elected to the USA National Academy of Sciences in 1988, the Institute of Medicine in 1994, and the American Academy of Arts and Sciences in 1988.



Congress plenary lecture: *Seven transmembrane receptors*





## FEBS | EMBO Women in Science Award 2017

The FEBS | EMBO Women in Science Award, a joint initiative of FEBS and EMBO, recognizes the exceptional achievements of a female researcher in the life sciences. The 2017 award was presented at the the FEBS Congress 2017 in Jerusalem to Ottoline Leyser (Cambridge University, UK).

**Ottoline Leyser**, Director of the Sainsbury Laboratory at the University of Cambridge, UK, was awarded the 2017 FEBS | EMBO Women in Science Award in recognition of her work on the evolutionary, developmental and biochemical mechanisms that enable plants to respond and adapt to environmental changes. Her focus on understanding how plants respond to their environment led to her discovery of the mechanism of action of the plant hormone auxin and the identification of a second group of plant hormones known as strigolactones. Her current work is using computational modelling as well as an array of traditional techniques to elucidate the mechanisms underlying the interaction of these two hormone systems. Ottoline Leyser received her BA and PhD in Genetics from the University of Cambridge. Following postdoctoral research at Indiana University and the University of Cambridge, and a lectureship then professorship at the University of York, she moved to the Sainsbury Laboratory in Cambridge in 2011 and became Director in 2013. She is also the Chair of the British Society for Developmental Biology and of the Royal Society's Science Policy Advisory Group. Her achievements have been recognized by election to EMBO, the Royal Society, the US National Academy of Sciences and the German National Academy of Sciences Leopoldina. She was awarded a DBE (British Damehood) in 2017, and has received numerous prizes, including the Society of Experimental Biology's President's Medal, the Royal Society Rosalind Franklin Award, the International Plant Growth Substance Association's Silver Medal, and the UK Genetics Society Medal.



Congress plenary lecture: *Dual mode strigolactone signalling and the bud activation switch*

## FEBS Anniversary Prizes (Jerusalem, 2017)

The 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. The recipients from the FEBS Congress 2017 were Edward A. Lemke (Heidelberg, Germany) and Rubén Fernández-Busnadiego (Martinsried, Germany).

**Edward A. Lemke** is a Group Leader at the Structural and Computational Unit and jointly appointed with the Cell Biology and Biophysics Unit at the EMBL in Heidelberg, Germany. His group has developed new tools from single-molecule science and chemical biology to study the flexible and disordered proteins of higher organisms – due to the intrinsic dynamics, this so-called dark proteome remains elusive to many conventional approaches. His group's current focus is on how disordered proteins can form a selective permeability barrier that permits nuclear pore complexes to facilitate fast yet specific nucleocytoplasmic transport. Edward Lemke spoke on 'Decoding molecular plasticity in the dark proteome' at the FEBS Congress, in the Symposium 'Intrinsically Disordered Proteins'.



**Rubén Fernández-Busnadiego** is a Project Group Leader at the Max Planck Institute of Biochemistry, Martinsried, Germany. His group investigates the structural basis of toxic protein aggregation in neurodegenerative diseases such as Alzheimer's or Huntington's using cutting-edge electron microscopy techniques. His work is illuminating the pathogenic interactions of aggregates with their cellular environment at unprecedented resolution. Rubén Fernández-Busnadiego spoke on 'Unraveling the structure of toxic protein aggregates in situ' at the FEBS Congress, in the Symposium 'The Structural Organization of the Cell'.



## FEBS Press Award Lectures (Jerusalem, 2017)

The *FEBS Letters* Award 2016, awarded jointly to Jan Löwe and Kim Nasmyth, was presented to Jan Löwe at the FEBS Congress 2017, and *The FEBS Journal* Richard Perham Prize 2017 to Sebastian Bittner. For more details and photos, see the FEBS Press report on page 12.



## FEBS Special Sessions at the 42nd FEBS Congress

### Education

The FEBS Education session during the FEBS Congress, on **'Practicals in Molecular Life Sciences'** (September 11th), started with Bruce Alberts (a prominent life scientist and science policy maker) as the Plenary Lecturer. He presented an inspiring educational activity: 'Classical papers as a tool to help students aim high as scientists' – a course delivered by him and his colleague as part of his role as Chancellor's Leadership Chair in Science and Education, University of California, San Francisco. The chief concern of Bruce Alberts was to counteract the pressure on young scientists to pursue 'overly conservative research'.

Next, Gus Cameron (Bristol, UK) followed with 'e-Biolabs', an interesting innovative initiative that offers a set of integrated information and tools to support laboratory-based learning in a user-friendly

way. Finally, the theme 'wet practicals', presented by Frank Michelangeli (Chester, UK) and Jason Perret (Brussels, Belgium), looked at various considerations for delivery, such as small versus large groups of students, bioscience versus other student backgrounds, and emphasis on skills training and problem solving.

The session continued for an hour of 'Panel Discussion', with participants staying late to ask their questions and take part in fruitful discussions.

The Education session attracted over 200 participants. Our deep thanks go to Bruce Alberts and all the speakers for their excellent contributions.

Later in the Congress, the FEBS Publications and Education Committees jointly organized a special session on 'How to write and publish a scientific article', which is summarized on page 13.

*Gül Güner Akdoğan*  
Chair, FEBS Education Committee

### Women in Science

A highlight of the FEBS Women in Science activities at the FEBS Congress was the presentation of both the 2017 and 2016

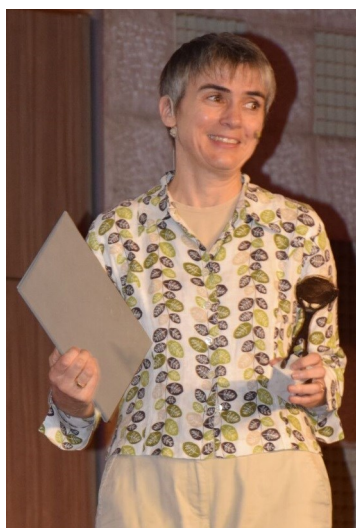
#### FEBS | EMBO Women in Science Awards, to

Ottoline Leyser (Cambridge, UK) and Fiona Watt (London, UK), respectively, where they each delivered an

outstanding and inspiring plenary lecture. The award winners are role models for the next

generation of scientists, but representation of women in senior scientific positions is still low. In their introductory words they gave examples of their own experience and stressed that it is important that people of all ages and gender call attention whenever they feel women do not have equal opportunities.

A **Gender Issues in Science** session at the Congress on September 12th provided a multicultural platform for consideration of career challenges and solutions, with lectures from Marianne Skardéus (Sweden; European Regional



Presentations of the FEBS|EMBO Women in Science Awards. (left) Ottoline Leyser (featured on page 7) received the 2017 award and delivered a plenary lecture on strigolactone signalling in bud activation; (right) Fiona Watt received the 2016 award (delayed due to cancellation of the 2016 FEBS Congress) and spoke on epidermal stem cell differentiation. With Fiona Watt are (left) Gerlind Wallon from EMBO and (right) Cecilia Arraiano from FEBS.

Director, Delta Kappa Gamma Society), Gül Hüray İşlekel (Turkey; Professor, University of Dokuz Eylül, Izmir) and Lilach Hadany (Israel; Professor, Tel Aviv University) followed by discussion with the audience.

There was also a special lunch held at the Congress venue for 50 junior and senior female scientists to get together to discuss career-related issue, share experiences and make new contacts.

*Cecilia Arraiano*  
Chair, FEBS Working on Women in Science





## Science and Society

The potential of genome-editing techniques such as CRISPR/Cas9 to transform genomic medicine into a precision science and alleviate disease has ignited the imagination of thousands of researchers looking for new therapeutic strategies. Scientists were very quickly able to show that this gene-altering technique could eliminate disease-causing mutations in tissues in vitro. For example, CRISPR/Cas9 use makes it possible to remove HIV from the genome of cells or to modify immune cells to make them better cancer fighters.

However, the impressive developments in such personalized medicine have in recent years caused intense debate, with the obvious benefits from the use of these methods often discussed under the prism of ethical problems that they create. The FEBS Science and Society session at the FEBS Congress on September 13th on **‘The role of CRISPR in personalized medicine: legal and ethical problems’** offered the chance for Congress participants to gain fresh insights from distinguished scientists and to engage in constructive discussion on the subject. The session attracted a large audience of junior and senior scientists.

After a short introduction by the Chair, the session began with the talk ‘CRISPR mechanism: RNA-guided DNA/RNA targeting’ from Francisco Mojica from Spain. Francisco Mojica has been involved in this field since the early 1990s when he discovered these repetitive sequences in Archaea, and is considered today as the scientist who suggested the role of CRISPR for genome modification. He

gave an impressive talk about the mode of action of CRISPR and outlined new approaches for its use in personalized medicine. Next, Adi Bartzel from Israel presented the lecture ‘Genome editing in the clinic: status, prospects and hurdles’. He described several programmable nucleases including CRISPR/Cas9 used in gene editing for the treatment of various diseases and especially certain cancers. He mentioned that translating genome-editing technologies to the clinic may address important hitherto unmet needs, but it raises concerns regarding genotoxicity and immunogenicity. Finally, Peter Mills from the UK in his talk ‘Genome editing bioethics and the Oviedo Convention’ presented some views produced by this convention on human rights and biomedicine which constitutes binding law in 29 countries and serves as an authoritative reference point. He pointed out that its application to biology and medicine is guided by two principal concerns: the protection of the individual against abuses and the promotion of progress in biology and medicine for the benefit of present and future generations.

After the talk, the audience raised a number of interesting questions. The discussion, with participation from the lecturers and Chair, was focused particularly on what would happen if someone proceeded with unethical use of gene editing and especially use in bioterrorism. A major conclusion was that it is today more than ever necessary for society to become engaged in this matter to ensure the safe context of gene editing.

*Emmanouil Fragkoulis*

*Chair, FEBS Science and Society Committee*

## FEBS Diplôme d'honneur

FEBS is led by elected senior scientists working pro bono. During the Opening Ceremony of the 42nd FEBS Congress, FEBS Secretary General Václav Pačes presented the FEBS Diplôme d'honneur – which honours biochemists and molecular biologists who have given outstanding service to FEBS – to Adam Szewczyk (Poland), FEBS Congress Counsellor 2006–2014 and

Andreas Hartig (Austria), Chair of the FEBS Fellowships Committee 2014–2016. Farewell thank you gifts were also presented to previous FEBS Diplôme d'honneur recipients Claudina Rodrigues-Pousada (Portugal), Chair of the FEBS Working Group on the Careers of Young Scientists 2005–2007 and 2011–2017, and Israel Pecht (Israel), FEBS Secretary General 2008–2016.

## FEBS Congress Survey

Thanks very much to all delegates who completed the 2017 FEBS Congress feedback survey! The event received excellent ratings overall, and the comments included many constructive suggestions for future events – these have been considered carefully and

shared with future Congress organizers where appropriate. The winner of the prize draw for those who completed the survey – for a free registration to the 43rd FEBS Congress in Prague in July 2018 – was Maxim Tikhonov (Moscow, Russia).





## The 17th FEBS Young Scientists' Forum

The 17th FEBS Young Scientists' Forum (YSF) was held from September 7th to 10th 2017, immediately before the 42nd FEBS Congress, at Ramat Rachel, Jerusalem, the guesthouse of a kibbutz.

As has been the tradition for this gathering of PhD students and postdocs over recent years, a committee of young scientists under my guidance organized the YSF. The 2017 local organizing committee – Maayan Pour (Chair), Geula Hanin, Elya Dekel, Roy Kalfon, Maayan Korman and Gamze Tuna – worked hard to create a successful and unique event. In particular they introduced a new idea of an opening lecture with a historical perspective (from Dan Tawfik from the Weizmann Institute in Israel), who gave us fascinating stories about the lac operon and other major discoveries in biology, and they organized interesting social events – a kibbutz tour and a taste of Jerusalem history at the Israel Museum.

There were 98 participants selected for the 17th YSF, coming from 29 countries. FEBS provided a grant for YSF organization, and paid for accommodation for the participants at both the YSF and FEBS Congress, and most travel costs. The Biochemical Society (UK) sponsored two participants.

During the scientific program, four keynote speakers – Naama Barkai (Israel), Nicolas Plachta (Singapore; EMBO Young Investigator Lecture), Güneş Özhan (Turkey) and Eric Westhof (France) – provided inspiration and interest from their research presentations (see more details in the FEBS Fellows Meeting report, next page). There were also five symposia of four talks from selected participants and a successful session of 1-min poster highlight talks, as well as extended poster viewing sessions and plenty of interaction over coffee breaks and meals, including with participants from the FEBS Fellows Meeting (see next page).

A 'Careers Roundtable' was also organized as an important part of the YSF, to provide a forum to

learn about and discuss early-career options, as well as providing advice on key skills. Contributors this year were Claudina Rodrigues-Pousada (Career development), David del Álamo Rodríguez (EMBO Fellowship Programme Manager), Alan Craig (EU mobility programs), Keith Elliott (CV preparation) and Mary Purton from *FEBS Open Bio* (Scientific manuscript writing).

### A farewell

The 17th YSF is the final one I will oversee for FEBS, and I leave my position after many years with great emotion. It has been a pleasure to witness the interactions and interest of the local organizing committees as well as the stimulating atmosphere of the Forums, evident through the commitment of participants to exchanging ideas and addressing questions to the various speakers, which increased over the years. I sincerely acknowledge the role of the Chairs of the Organizing Committees of the YSFs I have overseen: Elza Friedlander (5th YSF, Budapest 2005), Gül Dikmen (6th YSF, Istanbul 2006), Ingrid Frohner (7th YSF, Vienna 2007), Francesco Rua (11th YSF, Torino 2011), Irene Díaz Moreno (12th YSF, Seville, Costa Ballena 2012), Alexey Belurogov (13th YSF, St Petersburg 2013), Alice Verchère (14th YSF, Paris 2014), Karine Santos (15th YSF, Berlin 2015), Gamze Tuna (16th YSF plans, Kuşadası 2016 – although the YSF and Congress were cancelled) and Maayan Pour (17th YSF, Jerusalem 2017). I wish my successor Irene Díaz Moreno all the best to put her energy and expertise into the service of her young colleagues.

*Claudina Rodrigues-Pousada*  
*Chair, FEBS Working Group on the Careers*  
*of Young Scientists*

To find out what it is like organizing the YSF as the young scientist committee Chair, see the [account by Maayan Pour](#) on the FEBS Network site's Early-Career Scientist Channel.





## The 3rd FEBS Fellows Meeting

The 3rd FEBS Fellows Meeting, also held just before the 42nd FEBS Congress at the gorgeous venue of Ramat Rachel in the vicinity of Jerusalem from 7th to 10th September 2017, brought together 12 invited former recipients of FEBS Long-Term Fellowships.

The Fellows Meeting took place alongside the Young Scientists' Forum (YSF), and YSF participants and Fellows attended the opening and keynote lectures, a roundtable careers session, and, most important for sharing experiences, had meals and coffee breaks together. For the opening lecture, Dan Tawfik (Weizmann Institute of Science) delivered a fascinating talk on the major milestones in enzyme research, giving large credit to the outstanding Pasteur Institute's scientists Jacob, Monod, Lwoff and Changeux. Naama Barkai (Weizmann Institute of Science) and Günes Özhan (Izmir International Biomedicine and Genome Institute) walked us through various aspects of cell signalling, while Nicolas Plachta (Institute of Molecular and Cell Biology in Singapore) showed how up-to-date imaging techniques were pivotal to investigate how cells decide their fate, shape and position in the embryo. Eric Westhof (Institute of Molecular and Cell Biology, Strasbourg) described his novel and unprecedented integrated structure- and energy-based view of the genetic code.

Three sessions in the Fellows Meeting were specifically dedicated to 30-minute talks from the Fellows. Owing to the various scientific horizons that they arose from, a great deal of diversity accompanied the talks – from structural biology to

cell–cell communication to chromatin remodeling, and much more. Societal and cultural aspects were also not neglected at the event, with an instructive guided tour through the Ramat Rachel kibbutz and an interesting visit to the Israel Museum in Jerusalem.

In a roundtable organized by former Fellowships Committee Chair Andreas Hartig, the Fellows discussed the idea of a College of FEBS Fellows. They offered help and advice on different issues for new Long-Term Fellows such as setting up a contract and settling in a new social and research environment in various places. In turn, they would be very pleased to receive some support and advice when starting their own lab, for instance by getting in touch with former fellows already running their own lab, either at a Fellows Meeting or via personal contact. Following a brief presentation about the newly launched FEBS Network, the Fellows showed great interest in taking advantage of its future possibilities such as a closed room for their communications.

Nine of the Fellows went on to the FEBS Congress, some of them being invited to give a short talk. All were absolutely enthusiastic about both the Fellows Meeting and the scientific quality and organization of the Congress. They deeply acknowledge and thank FEBS for the Long-Term Fellowship they obtained and the great opportunity to attend these events.

Given the success of the 3rd Fellows Meeting and the obvious enthusiasm of the Fellows, needless to say the 4th Meeting is on the way for 2019 in Krakow.

*Alain Krol*

*Chair, FEBS Fellowships Committee*



FEBS Fellows at the 3rd FEBS Fellows Meeting, with FEBS Fellowships Committee member Kristina Gruden (meeting Vicechair; third from left) and Alain Krol (meeting Chair; front row, second from right).



## FEBS Press journals at the 42nd FEBS Congress

The FEBS Congress provides delegates with a chance to meet the editors and staff of the FEBS Press journals with whom they normally only correspond with electronically. The journals were involved in several scheduled sessions this year.

The most prestigious of these were the Plenary FEBS Press Award Lectures, which were very well attended. The *FEBS Letters* Award of €10,000 is given biennially to the senior author of an outstanding paper published in *FEBS Letters* during the previous two calendar years, whereas *The FEBS Journal* Richard Perham Prize of €1000 is awarded annually to the first author of the best paper published in the journal during the previous calendar year. Felix Wieland, Managing Editor of *FEBS Letters*, was pleased to present the *FEBS Letters* Award 2016 jointly to Jan Löwe and Kim Nasmyth for their outstanding paper [Structure and function of cohesin's Sec3/SA regulatory subunit](#). The Award ceremony was followed by an inspiring lecture by Jan Löwe on the structural and functional complexity of the cohesin ring. Sebastian Bittner, the 2017 recipient of *The FEBS Journal* Richard Perham Prize for his paper [Soluble TL1A is sufficient for activation of death receptor 3](#), was formally presented

with his award by Seamus Martin, Editor-in-Chief of *The FEBS Journal*. Sebastian Bittner then gave an illuminating talk on the mechanisms by which the TNF ligand TL1A triggers activation and subsequent internalization of the tumour necrosis factor receptor superfamily member death receptor 3 (DR3).

The FEBS Press journals were pleased to recognize the contributions of poster presenters at the FEBS Congress by awarding daily poster prizes. All the submitted poster abstracts were reviewed by journal staff, who drew up a shortlist of posters for each day of the Congress. A jury of journal editors and nine FEBS Fellows then appraised the shortlisted posters and any others that caught their eye on the day. The judges scored the posters on their scientific content, design and layout, and the skill of the presenter in explaining their work. At 14:45 each day, the winning posters were whisked away from the poster hall to the FEBS booth in the exhibition area, where they remained on display for the rest of that day. Congratulations to all of the winners, and especially to those selected for the final journal poster prizes, which were awards of €200 presented at the final session of the Congress.



(top, from left) Jan Löwe, *FEBS Letters* Award joint prizewinner; Sebastian Bittner receiving congratulations for his prize from *The FEBS Journal* Editor-in-Chief, Seamus Martin. (bottom, from left) poster prizewinners Jean Hausser, Koji Ishikawa and Rakefet Ben-Yishay (see main text).

Koji Ishikawa collected his award from *The FEBS Journal* in person for his poster 'Multiple E3 ubiquitin ligases and N-terminal acetyltransferases are involved in protein-level dosage compensation that controls stoichiometry of protein complexes'. The winner of the *FEBS Letters* prize was Keis Nabhan Said Halidi for his poster 'CEP55 contains two new NEMO-like ubiquitin domains which play different roles in cytokinetic abscission'. 'Evolutionary trade-offs, universal cancer tasks and the function



of driver mutations' presented by Jean Hausser won the *Molecular Oncology* prize, while Rakefet Ben-Yishay was awarded the *FEBS Open Bio* prize for her poster 'Characterizing mRNA export at high resolution in individual nuclear pores in single cells'.

The FEBS Publications and Education Committees jointly organized a special session at the Congress on 'How to write and publish a scientific article'. Frank Michelangeli, a member of the Education Committee, spoke about the art (and science) of writing a scientific article. This was followed by a talk from Seamus Martin on how to choose an interesting scientific question and develop a successful project, and how to shape a good paper as you are still doing experiments. Research integrity in scientific publishing was the focus of the final talk by László Fésüs, Chair of the Publications Committee, who outlined recent initiatives to enhance the rigour of scientific research and to ensure that published work is reproducible, robust and transparent. (Slidesets from Frank Michelangeli

and László Fésüs from these talks are now on the [FEBS Network](#).) A follow-up evening workshop attracted around 50 early-career scientists. These were divided into four groups, each led by a journal staff editor, to debate topics such as: Data and image preparation, Search engine optimization of title and abstracts, Plagiarism and self-plagiarism, How to choose the right journal for your paper, and Responding to reviewers' comments. The questions were insightful and the discussions wide-ranging.

A new evening session this year was 'Meet the Editors' (with beer). After an informal introduction of the four FEBS Press journals by the various editors in attendance, a lively discussion ensued about the wisdom of journals selecting papers for impact and the role of research scientists in running FEBS journals. The editors also stressed that by publishing in the FEBS Press journals, authors are supporting the many other activities of FEBS.

Mary Purton  
Executive Editor, *FEBS Open Bio*

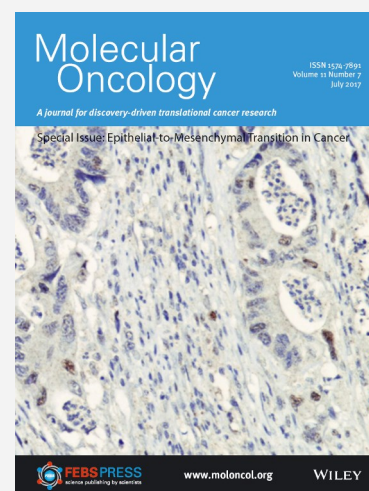
## Recent Special Issues from FEBS Press



Malaria is an urgent public health problem: it is a leading cause of death worldwide in children under the age of 5. As *Plasmodium* parasites develop resistance to conventional antimalarial therapies, new treatment strategies are desperately needed. This [Special Issue from The FEBS Journal](#) brings together authoritative review articles and cutting-edge research papers that highlight active, important malaria research areas – from *Plasmodium* physiology, to antimalarial therapies and vaccine development, to the search for new viable drug targets.



Immunity and metabolism are two major fields of research that have developed largely isolated from each other until recent years. A *FEBS Letters* [Special Issue on Immunity and Metabolism](#), edited by Laszlo Nagy and Wilfried Ellmeier, presents cutting-edge reviews that link physiological or pathological metabolic processes with immune cells, or dissect the metabolism of immune cells, demonstrating the interrelatedness between these two disciplines and opening new avenues for research and for therapies.



The transition of epithelial cells into mesenchymal cells (or EMT) is an integral part of embryonic tissue formation but also occurs in other process in adult bodies including cancer metastasis. *Molecular Oncology's* [Special Issue on The Epithelial–Mesenchymal Transition in Cancer](#), edited by Aristidis Moustakas and Antonio Garcia de Herreros, combines the expertise of founders of the EMT field with contributions from younger investigators for the latest updates and views on EMT in relation to oncology.





## Introducing the FEBS Network

### What is it?

The FEBS Network is a new initiative from FEBS to support molecular and cellular life scientists, drawing on recent developments in digital technologies for online communities. In a nutshell, it's an evolving platform for sharing advice, news and insight and for collaborating and connecting – and complements FEBS' existing work with events, its societies, journals, education and other projects. But words can convey only something of the Network's potential: have a look at [network.febs.org](http://network.febs.org)!

### Who's behind it?

The FEBS Network is the result of a collaboration between FEBS and its journal publishing partner Wiley, and uses expert network software from Zapnito. The project is overseen by a FEBS Network Working Group of senior scientists, and people contributing to key parts of the Network so far include scientists closely associated with FEBS activities, FEBS editorial staff and other selected experts and writers.

### Site features: helpful content – but also connections

The FEBS Network has opened with activity focused on advice, news and insights from selected contributors in three 'channels': Early-Career Scientist, Educator and Viewpoints (see box). These themes reflect long-standing activities of FEBS in

supporting young scientists, promoting molecular life sciences education, and following 'science and society' concerns. However, the Network will be more than a collection of interesting and useful pieces of content: it can also become a supportive community of interconnected molecular life science enthusiasts at all career stages. Tools currently available to encourage interaction and discussion include profile pages for those registered on the site (Users), following and commenting – and there are more interaction possibilities in the pipeline.

### Next up: 'rooms'

As the software available for the platform develops and the community around the Network grows, new options are becoming possible. We are currently excited to be launching 'rooms' on the platform as closed online spaces for community groups such as the FEBS Education Ambassadors and FEBS Fellows. Another important aim is to bring research topics in the molecular life sciences into the heart of the Network. For this, we are planning to offer similar rooms for discussion and interaction around particular research areas to certain FEBS event organizers wishing to extend the impact of their live events, as well as to active scientists in the FEBS community interested in an opportunity to develop subject-specific online communities, following a call for proposals at the start of 2018. We expect the 'Research' channel to

### Explore the FEBS Network: some recent posts

#### Early-Career Scientist

[On becoming a group leader](#), Evangelia Petsalaki  
[To be or not to be a postdoctoral fellow](#), Andreas Hartig

#### Educator

[Going mobile in the lab with Michaelis and Menten](#),  
 Angel Herráez  
[Clicking your way to flipping your class](#), Quentin Vicens

#### Viewpoints

[Spreading research excellence across Europe](#),  
 Maria Papatriantafyllou  
[Genome editing, human rights and the 'posthuman'](#), Peter Mills

#### Research

[Art under Cover](#), FEBS Letters  
[Celebrating the 2017 Nobel Prize in Physiology or Medicine](#),  
 FEBS Communications



highlight content from such ‘research division rooms’ as well as featuring research insights from articles and reviews in the FEBS Press journals.

### **Grassroots contributions: your input is invited!**

An additional big step for the Network is the recent widening of the possibility to contribute material such as posts and videos to the site to all Users. While content in the main channels will continue to come from experts and other contributors appointed by the channel overseers, all those registered on the site can now post content to their personal profile page, and such posts will also appear as ‘Latest from all the community’ on the homepage.

The FEBS Network is at an early stage of development, and we welcome your comments to help create a resource that adds real value for the community and meets our ultimate goal of advancing the molecular life sciences. If you have

time, it would be appreciated if you could complete the [survey](#) on the site to help us collect thoughts. We would also like to hear directly from scientists with a passion for writing or video making and with expertise and experience to share who are interested in becoming regular channel contributors.

### **How to get started**

Simply visit [network.febs.org](http://network.febs.org) and make your profile by registering on the platform. There are several handy guides in the ‘[About the FEBS Network](#)’ channel for those new to the site, and there is more introductory information on our ‘[Welcome](#)’ page. When you register on the FEBS Network you also gain free access to *The FEBS Journal* and *FEBS Letters*. Come and join the developing community!

*The FEBS Network Working Group*  
*Queries: [info@febs.org](mailto:info@febs.org)*

## **FEBS Education**

### **The 2nd FEBS Education Ambassadors Meeting** 7–8 April 2017; Paris

This meeting at the Descartes University Campus, kindly hosted by Frédéric Dardel, Rector of the University and a former Chair of FEBS, brought together the Education Ambassadors of 24 FEBS Constituent Societies and the FEBS Education Committee. There were informative sessions by experts and reports by Ambassadors, as well as small-group discussion time for the Working Groups of the Ambassadors. The topics discussed were: ‘Key Knowledge and Skills Expected from a Molecular Life Sciences Graduate’, ‘Good Practices in University Education’, ‘Promotion of Education: Communication with all Strategic Stakeholders’ and ‘Learning Resources’. The participants’ feedback was excellent and what they liked most was meeting with colleagues from different countries and discussing different situations and the approaches. The groups are still working and the next (3rd) Ambassadors Meeting will take place in Zagreb, Croatia (6–7 April 2018) for face-to-face discussions and assessment of achievements.

The FEBS Education Committee has started a new programme offering €1500 as well as consultancy support to Ambassadors for organizing education workshops in their own countries, and

four awards will be given in 2018. Applications should be sent to [gul.guner@deu.edu.tr](mailto:gul.guner@deu.edu.tr) by 30th November 2017.

### **Lithuania FEBS Education Workshop** 26–27 June 2017; Kaunas

This workshop, coordinated by Vida Mildaziene [General Secretary of the Lithuanian Society of Biochemistry and a member of the FEBS Working Group on Integration (WGI)] and Liliya Nadolnik (President of the Belorussian Society of Biochemistry), and hosted by the Lithuanian Society of Biochemistry, was conceived during the FEBS WGI visit to Grodno in 2016. The workshop took place on the campus of Vytautas Magnus University. The FEBS team consisted of Ferhan Sagin, Keith Elliott, and Gül Güner Akdoğan. Around 45 participants including faculty members and young scientists were present. There was also participation from Belorussia. The Workshop themes were selected according to the preferences of the two Societies. Altogether, it was a successful workshop, ranked by participants as excellent (93%) or very good (7%).

Our thanks go to the Lithuanian and Belorussian Societies of Biochemistry for their warm hospitality and interest in biochemical education.

*Gül Güner Akdoğan*  
*Chair, FEBS Education Committee*



## IUBMB–FEBS Conference on New Horizons in Biochemistry and Molecular Biology Education

6–8 September 2017; Rehovot, Israel

This significant initiative, agreed between IUBMB, FEBS and the Weizmann Institute of Science in 2015, brought together 130 participants (including lecturers) from around the world at the fascinating David Lopatie Conference Center of the Weizmann Institute of Science. Eight scientists were supported by bursaries from FEBS, IUBMB, the Tang Foundation, and the Weizmann Institute of Science.

The Conference was opened by Joan Guinovart, President of IUBMB, and Israel Pecht, Former Secretary General of FEBS, followed by introductions and welcomes from Anat Yarden (Host and Co-Chair) and Co-Chairs Janet Macaulay (Chair, IUBMB Education Committee) and Gül Güner Akdoğan (Chair, FEBS Education Committee).

The rich programme ([www.weizmann.ac.il/conferences/NHBMB2017](http://www.weizmann.ac.il/conferences/NHBMB2017)) included 16 invited lectures (international and Israeli) and three plenary lectures from eminent scientists/educators. The backbone of the programme was five mini-symposia ranging from the high-school stage of biology education, to the BSc level, to PhD training and up to the postdoctoral stage: ‘Pre-University Biology Education’ (Chair, Anat Yarden, Rehovot), ‘Key Knowledge and Skills for Molecular Life Scientists’ (Chair, Keith Elliott, Manchester), ‘Research in Undergraduate Education’ (Chair, Janet Macaulay, Monash), ‘PhD Training: New Prospects’ (Chair, Gül Güner Akdoğan, Izmir), and ‘Rethinking Doctoral Training’ (Chair, Michael Walsh, Calgary). The

conference also included eight workshops on current educational topics, involving innovative perspectives and methods. A poster session with 18 posters of high educational value received great interest as well.

The opening plenary talk by Bruce Alberts (UCSF, USA) on ‘Why science education is more important for the world than most scientists realize’ was inspiring. He stated how ‘every society needs the values of science: honesty, generosity, and an insistence on evidence while respecting all ideas and opinions regardless of their source of origin’. To spread these scientific values, he advocated less emphasis in science education on memorizing facts and more active problem-solving. In the second plenary talk, ‘The future of the Doctorate’, Robert Harris (Karolinska Institute, Sweden) reflected on the radical changes in expectations of both PhD students and supervisors, touching on pressures for publication, global competition, cases of scientific fraud and worsening career prospects, and argued how quality assurance and feedback systems are imperative within doctoral training. Another highlight of the conference was a closing plenary lecture from Ada Yonath, Nobel Laureate (Weizmann Institute of Science) on ‘Next Generation Environmental Friendly Antibiotics’, which ably demonstrated how scientific research can be explained in an understandable and friendly way.

Altogether, we hope the outcomes of this conference will have impact on how biochemistry and molecular biology education is pursued at all levels, throughout the world.

*Gül Güner Akdoğan, Anat Yarden and Janet Macaulay  
Co-Chairs of the Conference*



The organizers and representatives of FEBS and IUBMB with a group of conference participants.



## Fellowships news: awards and deadlines

FEBS Long-Term Fellows (selected for early postdoctoral support from FEBS through a highly competitive process) are eligible to apply for the FEBS Distinguished Young Investigator Award and FEBS Follow-up Research Fund as their Fellowships progress. The Distinguished Young Investigator Award gives recognition to FEBS Long-Term Fellows who have conducted excellent research during the tenure of their Fellowship, while the Fellowship Follow-up Research Fund helps young scientists who have been recipients of a FEBS Long-Term Fellowship to start work in an independent position in a FEBS country after completion of their Fellowship.

Here we feature two recent recipients of the awards. In 2016, The Distinguished Young Investigator Award went to Dr Hannes Mutschler (FEBS Fellowship at the MRC Laboratory of Molecular Biology in Cambridge, UK), and FEBS Follow-up Research Funds were given to Dr Lukas Cajanek

(FEBS Fellowship at the Biozentrum of the University of Basel, Switzerland; featured previously in *FEBS News*), Dr Beate Lichtenberger (FEBS Fellowship at the Wellcome Trust Centre for Stem Cell Research of the University of Cambridge, UK), and Dr Hannes Mutschler.

FEBS Long-Term Fellowship applications following the 2017 call are currently being assessed, and the deadline for applications in 2018 will be 1st October 2018. For details of the shorter-term Fellowships available from FEBS, please refer to the [Fellowships section](#) of the FEBS website. Applications for Short-Term Fellowships and Collaborative Experimental Scholarships for Central & Eastern Europe in 2018 can be sent throughout the year, while applications for Summer Fellowships in 2018 will have a deadline of 1st April 2018.

*Alain Krol*  
*Chair, FEBS Fellowships Committee*

### Beate M. Lichtenberger

With the three-year support of the FEBS Long-Term Fellowship I joined the laboratory of Prof. Fiona Watt at the Wellcome Trust Centre for Stem Cell Research, University of Cambridge and later at King's College London in 2012. Together with my colleagues I discovered that skin fibroblasts arise from two different fibroblast lineages, which have distinct functions in skin homeostasis, regeneration and fibrosis (Driskell et al., 2013; Mastrogiannaki et al., 2016). Furthermore, I showed that fibroblasts from the two lineages respond to different signals derived from neoplastic cells, and remodel the dermis in a unique manner towards a tumour-prone microenvironment (Lichtenberger et al., 2016). This study is shedding light on the important issue of how signature oncogenic mutations in epithelial cells result in characteristic stromal responses.

Due to the experience and publications resulting from my postdoctoral research projects I was offered a position as a principal investigator at the Skin & Endothelium Research Division, Department of Dermatology at the Medical University of Vienna in April 2016, and received one of the prestigious career development fellowships from the Elise-Richter Program of the Austrian Science Fund. My lab aims at dissecting whether the two fibroblast lineages also have distinct functions in skin cancer development and progression, and which signalling pathways are involved in the cross-talk between cancer cells and fibroblasts. In addition, we are investigating if modulating dermal signalling can improve wound regeneration or ameliorate fibrotic diseases.

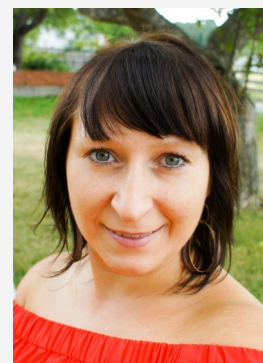
With the FEBS Fellowship Follow-up Research Fund I purchased small equipment for my lab and financed an RNA sequencing array, which provided important insights into the signalling mechanisms between cancer cells and cancer-associated fibroblasts. The RNASeq data are the foundation for our current project and many new exciting studies that we develop in the lab.

#### Key references

Driskell, R.R., Lichtenberger, B.M., Hoste, E., Kretzschmar, K., Simons, B.D., Charalambous, M., Ferron, S.R., Herault, Y., Pavlovic, G., Ferguson-Smith, A.C. et al. (2013) Distinct fibroblast lineages determine dermal architecture in skin development and repair. *Nature* 504, 277–281

Lichtenberger, B.M., Mastrogiannaki, M. and Watt, F.M. (2016) Epidermal beta-catenin activation remodels the dermis via paracrine signalling to distinct fibroblast lineages. *Nat. Commun.* 7, 10537

Mastrogiannaki, M., Lichtenberger, B.M., Reimer, A., Collins, C.A., Driskell, R.R. and Watt, F.M. (2016) beta-Catenin stabilization in skin fibroblasts causes fibrotic lesions by preventing adipocyte differentiation of the reticular dermis. *J. Invest. Dermatol.* 136, 1130–1142





## Hannes Mutschler

Supported by a FEBS Long-Term Fellowship from 2012 to 2015, I joined the group of Dr Phil Holliger at the MRC Laboratory of Molecular Biology in Cambridge, UK. The goal of my postdoctoral research was to explore how short RNA strands could assemble longer RNAs and catalysts during the origin of life on Earth. In my main project, I could demonstrate that ensembles of primitive ribozymes and RNA oligonucleotides together with cyclic freeze-thaw cycles can unlock complex catalytic functions such as template-dependent RNA polymerase activity. This work helps to understand the processes that might have closed the gap between short, prebiotically plausible RNA molecules and large ribozymes, which were necessary for early genetic information transfer and metabolism.

Supported by a prestigious research grant by the MaxSynBio research network of the Max Planck Society, I started my own independent research group at the Max Planck Institute of Biochemistry in Martinsried (Germany) in March 2016. My group is focusing on the bottom-up synthesis of self-replicating systems capable of Darwinian evolution and the development of model protocell systems with life-like properties. The FEBS Distinguished Young Investigator Award and the FEBS Follow-up Research Fund supported one of my ongoing research projects, which aims to build a synthetic in vitro replicator based on a double-stranded RNA genome.



### Key references

Mutschler, H. and Holliger, P. (2014) Non-canonical 3'-5' extension of RNA with prebiotically plausible ribonucleoside 2', 3'-cyclic phosphates. *J. Am. Chem. Soc.* 136, 5193–5196

Mutschler, H., Wochner, A. and Holliger, P. (2015) Freeze-thaw cycles as drivers of complex ribozyme assembly. *Nat. Chem.* 7, 502–508

Cozens, C.\*, Mutschler, H.\*, Nelson, G., Houlihan, G., Taylor, A. and Holliger, P. (2015) Enzymatic synthesis of nucleic acids with defined regioisomeric 2'-5' linkages. *Angew. Chem.* 54, 15570–15573 \*joint first-author

## FEBS National Lectures



It was with great pleasure that the 53rd Contact Meeting of the Norwegian Biochemical Society (NBS) hosted a FEBS National Lecture by Prof.

Emmanuelle Charpentier (Max Planck Institute for Infection Biology, Berlin, Germany). Emmanuelle Charpentier presented the story of how she and her colleagues figured out the molecular mechanisms underlying the CRISPR/Cas9 system of bacteria and how this knowledge resulted in technology that opened new avenues for the development of genome-editing tools. Although the CRISPR/Cas9 technology raises many important ethical concerns, the focus of the lecture was the science and the simplistic experimental design that was used. Emmanuelle Charpentier highlighted the fact that large breakthroughs in science do not require fancy equipment or huge projects: it's all about asking the correct questions and being able to answer them with the technology at hand.

The 53rd Contact Meeting was held at Storefjell Resort in the Gol Mountains, Norway, January 19–22, 2017, and hosted over 250 participants. Invited plenary lecturers covered a wide range of topics, including DNA repair and cancer, enzyme



Tage Thorstensen from the NBS committee handing over the FEBS National Lecture award to Emmanuelle Charpentier.

mechanisms, plant pathogens, gut microbiota, plant biotechnology, systems biology, neurobiology and protein evolution. The meeting also had poster sessions (52 posters), minisymposia (72 short talks), a separate workshop on teaching in the molecular life sciences, a large exhibition of products and services in the life sciences field, and an exciting social program.

*Gustav Vaaje-Kolstad  
Norwegian University of Life Sciences, Ås  
Committee Leader, NBS Contact Meeting 2017*



Prof. Revaz Solomonia was welcomed as a FEBS National Lecturer at the 28th National Congress of the Turkish Biochemical Society (TBS) at Erzurum, Turkey, September

19–23, 2017. This year's event was also the 1st TBS International Biochemistry Congress and welcomed distinguished international speakers. There were over 200 posters, 117 short oral presentations and 518 participants at the Congress.

Prof. Revaz Solomonia is Head of the Biological Chemistry Institute and Physiology Institute, Ilia Tbilisi State University, Georgia, and also President of the Association of Georgian Biochemists (a FEBS Constituent Society) and the Georgian representative at the FEBS Education Committee's Ambassadors network. Revaz Solomonia is well known for his research on the molecular basis of memory. His team has used the proteomic approach to identify a wide range of changes in membrane and mitochondrial proteins contributing to the formation of long-term memory.

The special FEBS National Lecturer Session was chaired by Prof. Ferhan Sağın. After introductions and acknowledgements, Revaz Solomonia delivered an interesting plenary talk on 'Molecular Mechanisms of Memory in Imprinting' and was



awarded with the glass 'FEBS National Lecture Award'. Within the scientific program of the Congress, he also contributed to the Education Panel with his presentation entitled 'Biochemistry Education in Georgia'.

Prof. Solomonia's talks and presence at the Congress were evaluated as a great asset to the scientific program and to the Turkish biochemistry community.

*Ferhan Sağın, Ege University, İzmir  
Vice-President, Turkish Biochemical Society*

Meeting website: [biyokimyakongresi.org/eng/](http://biyokimyakongresi.org/eng/)



A FEBS National Lecture was delivered at a recent joint meeting of the Austrian Association of Molecular Life Sciences and Biotechnology (ÖGMBT) by Prof. Maria Mota (iMM – Lisboa,

Portugal). Maria Mota's research is focused on the biology and physiology of malaria and her aim is efficient control of this deadly parasite-borne disease. She has discovered essential molecular and cellular mechanisms that contribute to infections by *Plasmodium* parasites in the liver and cause malaria. Maria Mota won an EMBO Young Investigator Award in 2003 and a European Young Investigator Award from the European Science Foundation in 2004. From 2005 to 2010 she was sponsored by the Howard Hughes Medical Institute (USA) as an international investigator. From 2012 to 2017 she held an ERC starting grant to study nutrient sensing in malaria parasites. She is also a founder of the nonprofit organization *Viver a Ciencia*, which aims to promote science in Portugal.



Maria Mota with David Teis, Chair of the Scientific Committee of the ÖGMBT meeting

The 9th Annual Meeting of ÖGMBT together with the 8th Life Science Meeting Innsbruck and Biophysics Austria Annual Meeting was held in the



Center for Chemistry and Biomedicine of the Medical University and the Leopold Franzens University of Innsbruck, Austria, September 25–27, 2017. 360 participants from over ten different nations, 175 posters, 21 plenary speakers and 43 short talks contributed to the lively and exciting spirit of the meeting. Topics including Signaling in Cancer and Immunity, Lysosomes and Disease, Signaling Mechanisms: Protein Interaction, Epigenetics and Disease, RNA Biology, Translational Oncology, Stem Cells and Regeneration, Cell Division, Structural Biology and

Biophysics. The event was concluded by the session of Young Life Scientists Austria. The meeting was accompanied by social programs and an industrial-partner exhibition.

The organizers were pleased with the success of the meeting and, motivated by the enthusiasm of all participants, the preparations for the next annual meeting of ÖGMBT (to be held in Vienna, September 17–20, 2018) are starting now.

*David Teis, Innsbruck Medical University  
Scientific Committee Chair, ÖGMBT meeting*

---

## FEBS Council election outcomes (Jerusalem, 2017)

FEBS is ultimately governed by the FEBS Council, made up of one delegate from each of the Member Societies of FEBS (currently 34) as well as the members of the FEBS Executive Committee. The FEBS Council meets annually to elect members of the FEBS Executive Committee (FEBS Officers), as well as other FEBS Committee and Working Group members, for fixed terms as set out in the Articles of Association. The results of elections at the FEBS Council Meeting 2017 in Jerusalem for FEBS Officers and Committee Members are given below. Appointments will begin 1st January 2018.

Sincere thanks go to FEBS Executive and other Committee members whose posts finish at the end of 2017 for their various contributions to the work of FEBS: Johannes Buchner (Chair of FEBS Executive Committee 2017), Miguel Castanho (Publications Committee), Paola Chiarugi (Fellowships Committee), Modesto Orozco (Fellowships Committee), Francesc Posas (Publications Committee), Claudina Rodrigues-Pousada (Chair, Working Group on Careers of Young Scientists) and Karmen Stankov (Science and Society Committee).

### FEBS Executive Committee elections

FEBS Treasurer

Francesco Michelangeli (UK); first term

FEBS Congress Counsellor

Miguel A. De la Rosa (Spain); second term

Chair, Advanced Courses Committee

Beáta G. Vértessy (Hungary); second term

Chair, Publications Committee

László Fésüs (Hungary); third term

Chair, Working Group on Careers of Young Scientists

Irene Diaz-Moreno (Spain); first term

### Other new Executive Committee appointments\*

Chair of FEBS Executive Committee 2018

Nazmi Özer (Turkey)

Vice Chair of FEBS Executive Committee 2018

Abdussalam Azem (Israel)

\*Chair and Vice Chair are one-year appointments for FEBS Constituent Societies that have organized a FEBS Congress in the previous two years.

### New Members of other FEBS Committees

Fellowships Committee

Ayfer Yalcin (Turkey)

Publications Committee

Boris Turk (Slovenia)

Loredano Pollegioni (Italy)

Science and Society Committee

Raffaele Porta (Italy)

### New FEBS Constituent Society Memberships

Member: Association of Biochemists and Molecular Biologists in Bosnia and Herzegovina (previously Associate Member)

Associate Member: Belorussian Society of Biochemistry and Molecular Biology

---

The next FEBS Council meeting will take place on 12th July 2018 in Prague, following the 43rd FEBS Congress. FEBS Constituent Societies will receive details in early 2018 of available FEBS committee positions and an invitation for nominations.



Registration and abstract submission for the 43rd FEBS Congress have opened!  
Find out more here about the event from an interview with Prof. Tomáš Zima, Chair of the Organizing Committee, and see the Congress website – [www.febscongress.org](http://www.febscongress.org) – for all the details.

### Why Prague?

Prague and the year 2018 have a very symbolic meaning for us: 2018 will be 50 years since the first international gathering of life scientists in Prague in 1968 for the 5th FEBS Meeting, and also the 100th anniversary of the establishment of independent Czechoslovakia. We are therefore very proud to be able to host the upcoming FEBS Congress in Prague, Czech Republic and we look forward to welcoming researchers from around the globe – from the Americas to Europe to Asia – to a spectacular scientific gathering in our vibrant and cosmopolitan capital.

### What experience does your committee and CSBMB bring to the organization of this event?

The Czech Society for Biochemistry and Molecular Biology (CSBMB) is a well-established national biochemical society with a long history that has been involved in many European and international events. We organized several events for EMBO and ESF. However, the most relevant events were the previous FEBS and IUBMB (previously IUB) congresses, such as for FEBS in Prague in 1968 and 2009 and for IUB in 1988.



Tomáš Zima is Rector of Charles University Prague, and Head of the Institute of Medical Biochemistry and Laboratory Medicine. His main research interests include oxidative stress, AGEs, experimental nephrology, tumour markers, and laboratory management. He is a member of Academia Europea, Czech Learned Society and other scientific societies.

### How was the speaker program developed and what does it offer?

The invited speaker program was put together by the local program committee working in close collaboration with the International Advisory Committee, and combines international scientific celebrities and other very distinguished scientists as well as younger colleagues with fresh ideas. We have a fantastic line up of plenary speakers, focusing on younger scientists at the prime of their scientific careers (see box, next page). The range of symposia topics, such as structural biology with an emphasis on cryoelectron microscopy, RNA biology, nanotechnology, redox metabolism and clinically oriented topics will certainly be very attractive for a variety of students and scientists interested not only in biochemistry but in life sciences in general.

### What do you expect to be some of the hot topics at the event?

In light of the fact that the 2017 Nobel Prize in Chemistry was recently awarded 'for developing cryo-electron microscopy for the high-resolution structure determination of biomolecules in solution' the 43rd FEBS Congress will likely reveal a flurry of new results in this rapidly advancing area of biomedical research. Other areas attracting attention currently include molecular virology of Zika virus, roles of non-coding RNAs, and of course CRISPR approaches. New stories and emerging technologies will also be showcased at the poster sessions, which



will report significant unpublished results, and in speed and short talks selected from submitted work.

### How important is it for scientists to attend a broad conference?

I am deeply convinced it is a must. At a certain stage of your career you believe that the only practical conference to attend is a highly specialized meeting of your field where you get the most updated information and meet all the relevant people in one spot. It takes some time and maturity to realize that it is not enough. We all live in our own bubbles, and not only in science – it is very important to step out of your bubble occasionally, to see the ‘bigger picture’, to put your own research into a larger context, and to understand what people in other fields are doing and whether it could have some relevance to your own work. The cross-fertilization of ideas and approaches is very beneficial and refreshing. And sometimes, in times of change as our present time clearly is, it is simply important to come together and show our unity and joint interest in sharing ideas, international cooperation and friendly competition of minds and thoughts.

### What are your tips for those coming to a FEBS Congress for the first time for getting the most from the experience?

At the 43rd FEBS Congress we will be welcoming students and young scientists into a large family of colleagues. Make the most of the chance to meet famous biochemists from all over the world and listen to their lectures, including work from outside your own research area. In addition, take the opportunity to present your own work at this international event. Poster sessions are a good way to make new contacts.

### What support schemes are available to help early-career scientists?

At FEBS Congresses, there is a low registration fee for young scientists. In addition, early-career scientists presenting their work at the event may be eligible to apply for FEBS bursaries. Postdocs and PhD students selected for the FEBS Young Scientists’ Forum (see next page) will also receive financial support to attend the Congress. Details of these and other schemes are on the [Congress website](#).

### What are your own recommendations for three things to see in Prague?

Honestly speaking, recommending only three things

## FEBS 2018 Plenary Lectures



Recent studies of the mechanism of neurotransmitter release

**James E. Rothman**, USA (Nobel Laureate)  
(Opening Lecture)



Higher-order organization of the proteome explored by mass spectrometry

**Albert J.R. Heck**, The Netherlands  
(FEBS Sir Hans Krebs Lecture)



Mitochondria in cellular protein homeostasis

**Agnieszka Chacinska**, Poland  
(FEBS Theodor Bücher Lecture)



Enzyme inhibitors as tools for molecular recognition, imaging and specific drug delivery

**Jan Konvalinka**, Czech Republic  
(FEBS Datta Lecture)



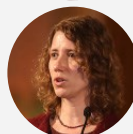
Fighting pathogens by symbiotic plant peptides

**Eva Kondorosi**, Hungary



CRISPR-Cas genome editors: structures, mechanisms and applications

**Martin Jinek**, Switzerland  
(IUBMB Lecture)



Diet, mitochondria and energy metabolism

**Alicia Kowaltowski**, Brazil  
(PABMB Lecture)



Keeping genomes stable through chromatin

**Susanne Gasser**, Switzerland  
(EMBO Lecture)



Communication between cells in the filaments of nitrogen-fixing cyanobacteria

**Robert Haselkorn**, USA



Seven rules of civilization

**Miroslav Bárta**, Czech Republic



Patterns of gene expression in animal development

**Pavel Tomancak**, Czech Republic  
(Closing Lecture)

Three additional plenary lectures will be announced in early 2018, following selection of the winners of the 2018 FEBS|EMBO Women in Science Award, the *FEBS Letters* Award, and *The FEBS Journal* Richard Perham Prize.

## Key Congress deadlines

**FEBS Young Scientists’ Forum:** January 21, 2018

**FEBS Bursaries:** March 8, 2018

**Abstract submission:** March 8, 2018



to see in Prague is hopelessly little. Prague is known as one of the most beautiful cities in the world, a UNESCO World Heritage Site and 'the city of a hundred spires'. Luckily for you, the summer weather is ideal for sightseeing walks even during evenings or night cruises on the Vltava river that will allow you to enjoy the magic of lit-up Prague, and thus you won't miss out on the attractions while still attending the Congress! A free public



Besides the comprehensive scientific programme, FEBS 2018 is going to be an excellent opportunity to build up and strengthen your networks and friendships. Sign up for the Congress Dinner on Tuesday 10th July 2018 in the famous Art Nouveau Municipal House (above) for a special Congress evening.

transport ticket will be offered to all Congress participants which will make 'discovering Prague' even easier. But to finally answer your question, such exploration of Prague should include the Old Town with the old Jewish Quarter, Lesser Town settlement around the Prague Castle, and for those who wish to escape from the summer heat I can recommend the Palace Gardens in the Lesser Town or the Petřín hill with a lookout tower reminiscent of a small Eiffel Tower. On the other hand, a mug of cold and invigorating Czech beer is also a good way to cool down during the summer temperatures!

### What are you most looking forward to at the Congress?

As an international scientific exchange forum, the 43rd FEBS Congress is poised to broadcast cutting-edge developments in biochemistry, molecular biology and related areas to the scientific community at large, as well as to the public. Noteworthy events will include lectures by a Nobel Laureate, FEBS Medal recipients, the 2018 FEBS|EMBO Women in Science Award winner and other awardees. However, what I personally look forward to most is meeting old friends and colleagues and making new friendships because a FEBS Congress is all about meeting people. Come and join us!

## The 18th FEBS Young Scientists' Forum



Dear Young Scientists,

On behalf of FEBS, it is our great pleasure to announce the upcoming 18th FEBS Young Scientists' Forum (YSF), which will be held in Prague, Czech Republic, from July 4th to 7th, 2018.

The YSF is a satellite meeting preceding the annual FEBS Congress, aiming to provide PhD students and young postdocs from the FEBS Constituent Societies with opportunities to meet, discuss projects,

exchange ideas, and to start building a network of colleagues and friends.

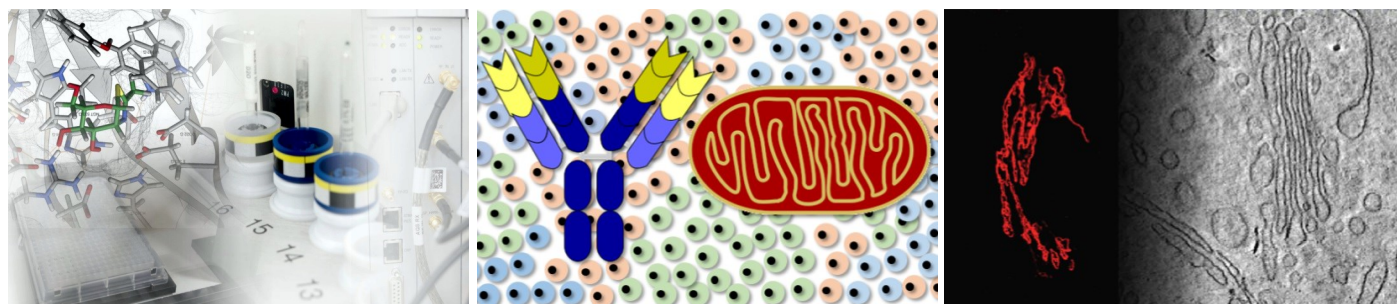
The YSF is traditionally organized as an international event with a friendly and informal atmosphere. All participants will get together to present their research topics as posters after delivering a one-minute presentation advertising the main content of their work. In addition, selected participants will have the opportunity to present their work as short oral presentations. The YSF will also include keynote lectures by distinguished speakers and a roundtable session on the support of scientific career development. The scientific sessions will be complemented by an attractive social programme.

About one hundred young scientists will be selected to take part in the YSF. All YSF participants will also attend the 43rd FEBS Congress in Prague, from July 7th to 12th, 2018, with financial support from FEBS. FEBS provides a YSF grant to the selected participants that covers Congress registration, accommodation for both the YSF and FEBS Congress and most travel expenses. For detailed information on how to apply, including eligibility criteria, please see the [YSF Applications](#) page.

The 18th YSF Organizing Committee is very happy to invite young scientists from across the FEBS area to join this exciting symposium. We are looking forward to receiving your application!

*18th YSF Organizing Committee: Vlastimil Kulda (Chair), Jana Balounova, Jiri Cerny, Lenka Malinovska, Katarina Psenakova*  
*Chair 2018, FEBS Working Group on the Careers of Young Scientists: Prof. Irene Díaz-Moreno*





## FEBS Advanced Courses 2018

Events selected for funding in the FEBS Advanced Courses Programme in 2018 span practical courses, lectures courses, workshops and ‘special meetings’ to be held across Europe – providing opportunities for learning and training in particular fields, updates on some of the latest progress, and the chance to develop contacts and discuss work with peers and experts focused on the same research area.

A plethora of techniques and topics in the molecular and cellular life sciences are covered by the 2018 events, as shown by the summary lists on these pages. For more details, visit the FEBS website at [bit.ly/FEBSAC2018](http://bit.ly/FEBSAC2018), where course summaries and website links are gradually being added, and you can also download the Advanced Courses 2018 poster for your department noticeboard. To give a flavour of the scientific topics of the meetings, images featured above are (from left) from a FEBS Practical Course in Sevilla on ‘Integrated approaches to biomolecular interactions’, a FEBS Workshop in Budapest on ‘Emerging issues of breast cancer research: tumour heterogeneity, immunotherapy, and cellular metabolism’, and a FEBS Special Meeting in Sorrento on ‘The 2018 Golgi meeting: Membrane trafficking in cell organization and homeostasis’.

FEBS Advanced Courses are particularly valuable for early-career scientists, who may be eligible to apply for FEBS [Youth Travel Fund](#) grants for financial assistance to participate.

For senior scientists interested in applying for funding for organization of a FEBS-supported course in 2019, note that there will be two calls for proposals, with application deadlines of 1st March and 1st August 2018.

*Beáta G. Vértessy*  
*Chair, FEBS Advanced Courses Committee*

### FEBS PRACTICAL COURSES

#### **Integrated approaches to biomolecular interactions**

Sevilla, Spain

May 7–11, 2018

[biomolecularinteractions.febsevents.org](http://biomolecularinteractions.febsevents.org)

Organizer: Antonio J. Díaz-Quintana

Deadline: January 15, 2018

#### **8th International practical course in systems biology**

Göteborg, Sweden

June 4–15, 2018

Organizer: Stefan Hohmann

Deadline: March 1, 2018

#### **Advanced methods in macromolecular crystallization VIII – cosponsored by Instruct**

Nove Hradý, Czech Republic

June 10–16, 2018

Organizer: Ivana Kutá Smanová

Deadline: March 31, 2018

#### **Microspectroscopy: functional imaging of biological systems**

Wageningen, The Netherlands

September 11–20, 2018

Organizer: Jan Willem Borst

Deadline: June 1, 2018

#### **Hydrodynamic and thermodynamic analysis of biological macromolecules and their interactions: multi- method approaches and global data analyses**

Prague, Czech Republic

September 23–28, 2018

Organizer: Ondřej Vaněk

Deadline: May 15, 2018

### FEBS PRACTICAL AND LECTURE COURSE

#### **Ligand-binding theory and practice**

Nove Hradý, Czech Republic

June 24–July 1, 2018

Organizer: Rüdiger Ettlich

Deadline: April 1, 2018



## FEBS ADVANCED LECTURE COURSES

### 50 years of molecular life sciences with FEBS Letters

Heidelberg, Germany  
May 24–25, 2018  
Organizer: Felix Wieland  
Deadline: January 31, 2018

### Design and engineering of synthetic biosystems

Spetses Island, Greece  
September 9–17, 2018  
Organizer: Mart Loog  
Deadline: April 30, 2018

### Redox-omic technologies and their application in health and disease

Spetses Island, Greece  
September 17–23, 2018  
Organizers: Corinne Spickett, Niki Chondrogianni, Daniela Caporossi and Andrew Pitt  
Deadline: May 14, 2018

### Extracellular matrix: cell regulation, epigenetics and modeling

Patras, Greece  
September 27 – October 2, 2018  
Organizer: Nikos K. Karamanos  
Deadline: June 1, 2018

### Lipid dynamics and membrane contact sites

Spetses Island, Greece  
August 31–September 7, 2018  
Organizer: Bernd Helms  
Deadline: June 15, 2018

### Biology and pathology of the cytoskeleton: the crossroads of three cytoskeletal systems

Prague, Czech Republic  
September 20–24, 2018  
Organizer: Pavel Dráber  
Deadline: June 30, 2018

### 3rd Danube conference on epigenetics

Budapest, Hungary  
October 9–12, 2018  
Organizer: Tamás Arányi  
Deadline: September 7, 2018

## FEBS WORKSHOPS

### Emerging issues of breast cancer research: tumour heterogeneity, immunotherapy, and cellular metabolism

Budapest, Hungary  
April 4–6, 2018  
[breastcancerres.febsevents.org](http://breastcancerres.febsevents.org)  
Organizer: Balázs Gyórfy  
Deadline: December 31, 2017

### The molecular basis of diseases: can we infer phenotypes from protein variant analysis?

Bologna, Italy  
May 23–25, 2018  
Organizer: Pier Luigi Martelli  
Deadline: April 15, 2018

### Proteases, inhibitors and biological control

Portorose, Slovenia  
September 8–12, 2018  
Organizer: Boris Turk  
Deadline: May 31, 2018

### Resurrection plants: hope for crop drought tolerance – REHOPE

Plovdiv, Bulgaria  
September 20–22, 2018  
Organizer: Galina Yahubyan  
Deadline: July 1, 2018

## FEBS SPECIAL MEETINGS

### ATP-binding cassette (ABC) proteins: from multidrug resistance to genetic disease – ABC2018

Innsbruck, Austria  
March 6–12, 2018  
[ABC2018.febsevents.org](http://ABC2018.febsevents.org)  
Organizer: Karl Kuchler  
Deadline: December 1 or 15, 2017

### The 2018 Golgi meeting: Membrane trafficking in cell organization and homeostasis

Sorrento, Italy  
October 15–19, 2018  
Organizer: Daniela Corda  
Deadline: June 15, 2018

## FEBS3+ Meetings 2018

The FEBS3+ Meeting programme provides funding for scientific meetings organized through collaboration of at least three FEBS Constituent Societies. Events supported in 2018 are: (1) XI Parnas Conference, Kyiv, Ukraine, 2–5 September 2018 (Ukrainian Biochemical Society, Israel Society

for Biochemistry and Molecular Biology, Polish Biochemical Society); and (2) From Molecules to Living Systems, Siófok, Hungary, 2–5 September 2018 (Hungarian Biochemical Society, Croatian Society of Biochemistry and Molecular Biology, Serbian Biochemical Society, Slovenian Biochemical Society).



network.febs.org



**THE FEBS NETWORK:**  
insight, support and  
connections for the  
molecular life science  
community

# Join the FEBS Network today!

Interaction

Advice

Insight

Connections

Learning

Inspiration

News

powered by



zapnito and WILEY