FEBS News

ISSUE 2 (JUNE) 2012

FEBS Education Workshop, Izmir, Turkey March 2012

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FEDERATION OF EUROPEAN BIOCHEMICAL SOCIETIES

www.febs.org

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THE 38TH FEBS CONGRESS
will take place in
St Petersburg, Russia
6–11 July 2013

A MESSAGE FROM FEBS TO ALL MEMBERS OF ITS CONSTITUENT SOCIETIES

WHY IT IS IMPORTANT TO PUBLISH YOUR PAPERS IN OUR JOURNALS

FEBS has twin commitments to high-quality publications and the promotion of molecular biosciences. FEBS owns all its publications, from *FEBS Journal* to *FEBS Letters*, *Molecular Oncology* and *FEBS Open Bio*. They are published on our behalf by Wiley-Blackwell and Elsevier, who return most of the revenue to FEBS, which, as a not-for-profit academic organization, ploughs all the income into funding our diverse activities: FEBS fellowships; advanced courses and workshops; congresses; and aiding researchers in poorer countries. By publishing in FEBS journals and taking part in reviewing, you are both supporting high-quality science and helping provide an essential income stream to fund education and research. The proliferation of open access journals with ill-defined standards of peer review makes it more important than ever to publish in journals that bear the stamp of respected organizations and publishers.

Cover: The FEBS Education Committee organizes workshops on biochemistry and molecular biology undergraduate and postgraduate education throughout the FEBS area; the photo is from the most recent event, in Izmir, Turkey (29–30 March 2012), which was coordinated by the Turkish Biochemical Society. For more on FEBS education work, see pages 10–12.

About *FEBS News*:

FEBS News is published three or four times a year. Email alerts containing a link to *FEBS News* are sent to subscribers and to FEBS Constituent Societies whenever a new issue is out. This issue as well as all former issues of *FEBS News* are available online at http://www.febs.org

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As a service to our more than 40,000 members, FEBS offers **FREE** advertising of academic positions (PhD students, PostDocs and Senior PostDocs) and scientific events in this newsletter and on our website.

Questions and suggestions about *FEBS News* should be sent to the *FEBS News* Editor, Carolyn Elliss (elliss@febs.org).

IUBMB–FEBS Congress 2012

REGULAR-FEE REGISTRATION DEADLINE 30 JUNE 2012

Congress 22nd IUBMB 37th FEBS
iubmb&febs Sevilla 2012
4 - 9 September

There is still time to register to join what will be FEBS' biggest event of the year: the joint 22nd IUBMB and 37th FEBS Congress in Sevilla, Spain, in early September. The Congress is being organized by the Spanish Society for Biochemistry and Molecular Biology (SEBBM), along with the Portuguese Society for Biochemistry (SPB) as a partner society – both are Constituent Societies of FEBS.

Scientific Program

The Congress should be a fantastic forum for scientists at all career stages and from across the spectrum of molecular life sciences. The broad subject coverage of the Congress – with the theme 'From Single Molecules to Systems Biology' – provides many opportunities for scientists to re-assess their own research approaches and directions in the context of progress in the bioscience field as a whole, and to discuss ideas and forge links with others. The ensuing cross-fertilization of data, techniques and ideas will hopefully lead to new inspiration and fruitful avenues of research.

The Congress poster sessions will enable researchers to discuss their findings with those engaged in similar work, while, for a broader outlook, talks from leading international researchers in the five central symposia (Single Molecules, Trends in Biochemistry, Beyond Biochemistry, Molecular Bases of Diseases, and Environmental Biochemistry) will provide top-level updates and useful overviews of recent findings. There will also be an opportunity for informal discussions between speakers and congress participants at the 'Speakers' Corner'. The speakers available will rotate according to the list of speakers of the day, and participants keen to take part in this activity can sign up at the Congress venue. In addition to the symposia, workshops have been organized for several disciplines (Omic Sciences, Biochemistry in Medical Diagnosis and Therapy, and Systems Biology) to facilitate interaction of senior and young scientists.

For career inspiration and insight into topics perhaps well beyond a scientist's immediate research area, there is an impressive plenary lecture line up, featuring Nobel Laureates and recipients of 2012 awards. And for wider interests still, there will be an interesting range of workshops and additional events covering topics such as biochemistry education, science and society, and entrepreneurship.

Congress speakers for the plenary lectures and five symposia are highlighted on the next page, but for full details of the Scientific Program, go to the Congress website.

Other highlights

Sevilla is an exciting location for the Congress, with numerous historic, artistic and other attractions that can be enjoyed just by strolling through the city or through an extensive Social Program of organized tours (see Congress website). The Congress is also introducing some innovative ideas to the conference experience, including a conference app, and a childcare service at the venue (bookable online during registration) to help participation of parents.

Don't forget to register!

Congress Plenary Lecturers

Tim Hunt, Nobel Laureate, Hertfordshire, UK
Mathias Mann, Martinsried, Germany
Ferid Murad, Nobel Laureate, Washington, DC, USA
Christian Griesinger, Göttingen, Germany
Kazutoshi Mori, Kyoto, Japan
Carlos López-Otín, Oviedo, Spain
Sai-Juan Chen, Shanghai, China
Elizabeth Robertson, Oxford, UK
Susan Gasser, Basel, Switzerland
Ada Yonath, Nobel Laureate, Rehovot, Israel
Carlos Bustamante, San Francisco, CA, USA
Joan Massagué, New York, NY, USA
Robert Huber, Nobel Laureate, Martinsried, Germany
Bruce Alberts, San Francisco, CA, USA
Venki Ramakrishnan, Nobel Laureate, Cambridge, UK

SYMPOSIUM 1: SINGLE MOLECULES

Protein–Nucleic Acid Interactions
Protein Interactions and Networks
Membranes and Proteins
Proteins Intrinsically Disordered
Engineering and Design

Frederic H. Allain, Zurich, CH; Renée Schroeder, Vienna, AT; Alfredo Torres-Larios, México D.F., MX; Wei Yang, Bethesda, MD, US; Patrick Aloy, Barcelona, ES; Rita Bernhardt, Saarbruken, DE; Natasa Przulj, London, UK; Marcellus Ubbink, Leiden, NL; Peter Hildebrandt, Berlin, DE; Uhtaek Oh, Seoul, KR; Manuela M. Pereira, Lisboa, PT; Keith Dunker, Indianapolis, IN, US; Jenny Dayson, La Jolla, CA, US; Isabella Felli, Florence, IT; Monika Fuxreiter, Debrecen, HU; Dominique Bourgeois, Grenoble, FR; Jenny Martin, Brisbane, AU; Modesto Orozco, Barcelona, ES; Nuno Santos, Lisboa, PT

SYMPOSIUM 2: TRENDS IN BIOCHEMISTRY

Genome Dynamics
Transcription and Chromatin
RNA Biogenesis and Processing
Autophagy and Protein Homeostasis
Integrated Cell Structure and Function

Andrés Aguilera, Seville, ES; Zoi Lygerou, Patras, GR; Michele Ramsay, Johannesburg, ZA; Camilla Sjögren, Stockholm, SE; Sebastián Chávez, Seville, ES; Mauro Giacca, Trieste, IT; Jane Mellor, Oxford, UK; Laszlo Tora, Strasbourg, FR; Myriam Gorospe, Baltimore, MD, US; Marcelo López Lastra, Santiago, CL; Reinhard Lührmann, Göttingen, DE; Raúl Méndez, Barcelona, ES; Claudio Hertz, Santiago, CL; Matthias Peter, Zurich, CH; Sandhya Visweswariah, Bangalore, IN; Jiarui Wu, Shanghai, CN; Philippe Bastiaens, Dortmund, DE; Christina Mitchell, Melbourne, AU; Howard Riezman, Geneve, CH; Claudio Sunkel, Porto, PT

SYMPOSIUM 3: BEYOND BIOCHEMISTRY

Ageing
Global Regulation and Cell Reprogramming
Artificial Cells and Genomes
Computing with Molecules and Cells
Dealing with Errors and Evolution

Maria Blasco, Madrid, ES; Matt Kaeberlein, Seattle, WA, US; David A. Sinclair, Boston, MA, US; Stathis Gonos, Athens, GR; Anamaria Camargo, Sao Paulo, BR; Mordechai Choder, Haifa, IL; Clyde Hutchison, La Jolla, CA, US; Kitai Kim, New York, NY, US; Antoine Danchin, Evry, FR; Daniel A. Hammer, Philadelphia, PA, US; Philipp Holliger, Cambridge, UK; Hamilton O. Smith, La Jolla, CA, US; Martyn Amos, Manchester, UK; Alexander Gabibov, Moscow, RU; Ehud Shapiro, Rehovot, IL; Ricard Sole, Barcelona, ES; Isabel Gordo, Oeiras, PT; Nicola Illing, Cape Town, ZA; David Posada, Vigo, ES; Eörs Szathmáry, Budapest, HU

SYMPOSIUM 4: MOLECULAR BASES OF DISEASES

Neurodegenerative and Organ Degenerative Diseases
Inflammation and Diseases
Stem Cells and their Niches
Cancer Genomics and Biomarkers
Role of Hypoxia in Pathogenesis of Inflammation in Cancer

Dario Alessi, Dundee, UK; Albena Jordanova, Antwerp, BE; Ángela Nieto, Alicante, ES; Maria João Saraiva, Porto, PT; Jacqueline Bromberg, New York, NY, US; Lisa Coussens, Portland, OR, US; Gabriel Rabinovich, Buenos Aires, AR; Francisco Sánchez Madrid, Madrid, ES; Eduard Batlle, Barcelona, ES; Leanne Jones, La Jolla, CA, US; Janet Rossant, Toronto, CA; Rune Toftgard, Stockholm, SE; Iqbal Parker, Cape Town, ZA; Kevin Ryan, Glasgow, UK; Raquel Seruca, Porto, PT; Eyal Gottlieb, Glasgow, UK; José López-Barneo, Seville, ES; Jacques Pouysssegur, Nice, FR; Idit Shachar, Rehovot, IL

SYMPOSIUM 5: ENVIRONMENTAL BIOCHEMISTRY

Oxidative Stress: Dealing with Oxygen
Dealing with Osmotic Stress
Life in Extreme Environments
Responding to Environmental Perception
Molecular Clocks and Cell Cycling

Eva-Mari Aro, Turku, FI; Sue Goo Rhee, Seoul, KR; Alicia Juliana Kowaltowski, São Paulo, BR; Tomris Özben, Antalya, TR; Nestor Carrillo, Rosario, AR; Karin Lindkvist, Lund, SE; Francesc Posas, Barcelona, ES; Haruo Saito, Tokyo, JP; Ronald S. Oremland, Menlo Park, CA, US; Juan Luis Ramos, Granada, ES; Helena Santos, Oeiras, PT; Rafael Vicuña, Santiago, CL; Bouchaib Bencharki, Casablanca, MA; Francsico Javier Cejudo, Sevilla, ES; Stanislaw Karpinski, Warsaw, PL; Cornelia Spetea, Gothenburg, SE; Albert Goldbeter, Brussels, BE; Paloma Mas, Barcelona, ES; Paolo Sassone-Corsi, Irving, CA, US; Marcelo Yanovsky, Buenos Aires, AR

FEBS/EMBO Women in Science Award 2012

FEBS and EMBO recently announced that the winner of the 2012 FEBS/EMBO Women in Science Award is Susan Gasser, director of the Friedrich Miescher Institute for Biomedical Research in Basel, Switzerland (press release: http://www.febs.org/index.php?id=675). The FEBS/EMBO Women in Science Award rewards the exceptional achievements of a female researcher in molecular biology over the previous five years. Winners of the award are role models who inspire future generations of women in science. Prof. Gasser has been recognized for her outstanding scientific research on genome stability and epigenetics and her commitment to mentoring women pursuing a career in science.

The Gasser laboratory studies two research topics of central importance to human health and disease: the maintenance of genome stability through DNA repair, and the role of epigenetic inheritance during tissue differentiation. Susan and her colleagues have examined how the experience of the cell and the environment affects the epigenetic code in different organisms. The Swiss scientist has authored more than 200 scientific articles and reviews over the last 30 years. The implications of her research are far-reaching for human disease, notably cancer. "Susan Gasser is not only a first-rate scientist, but is also playing an important role as one of the most dynamic and successful female scientific leaders in Europe and, indeed, anywhere," stated Gottfried Schatz, Professor Emeritus of Biochemistry at the University of Basel.

"This is indeed a great honour, since being recognized as a top scientist seems harder for a woman than for a man," said the award winner upon hearing of her distinction. "My own success, in any case, reflects that of my team, which balances individual goals with those of the group as a whole. This coordination is a talent women often have."

Mentoring female scientists was a role that she assumed early on in her career. Susan Gasser supported mentoring programmes at the University of Geneva, Switzerland, and the Swiss National Science Foundation. Career and family matters in academic institutions and industry were a frequent topic of her lectures. She has also trained many female scientists in her own laboratory with the result that many of them now run their own labs, and others are in leading positions in industry. "I am very proud of having trained a lot of very successful scientists," said the award winner.

"She clearly represents a role model for female scientists in Europe and beyond," commented Erich Nigg, Director of the Biozentrum, University of Basel, who has followed Susan's scientific career for the past 25 years.

The 2012 FEBS/EMBO Women in Science Award of €10,000 will be presented to Susan Gasser at the 37th FEBS and 22nd IUBMB Congress in Sevilla, where she will present a plenary lecture.

Biosketch

Susan Gasser studied biology at the University of Chicago, USA, and completed her PhD at the University of Basel, Switzerland, developing with Gottfried Schatz an assay for the import of mitochondrial proteins. During her postdoctoral studies she examined questions of metaphase chromosome structure and higher-order organization of DNA in *Drosophila* nuclei. Between 1986 and 2001, she led a research group at the Swiss Institute for Experimental Cancer Research in Epalinges, Switzerland, focusing on the functional implications of chromosomal organization in *Saccharomyces cerevisiae*. In 2001, she became a professor at the Department of Molecular Biology at the University of Geneva, Switzerland. Since December 2004, she is Director of the Friedrich Miescher Institute (FMI) for Biomedical Research in Basel and Professor of Molecular Biology at the University of Basel. Professor Gasser has served nine years as a member of the Swiss National Science Foundation Council, she was Vice-chair and Chair (as of 2003) of the EMBO Council, and currently sits on numerous editorial boards, review committees and advisory boards. She has been awarded several prizes, including the Otto Nageli Prize 2006, the INSERM International Prize 2011 and the Medal of Honor from the Charles University in Prague.

Nominations for the 2013 FEBS/EMBO Women in Science Award close on 15th October 2012. For more information, go to the FEBS and EMBO websites.

FEBS Fellowships news: FEBS Distinguished Young Investigator Awards

FEBS Long-Term Fellowships are awarded to support visits by postdoctoral scientists to a host laboratory in another country within the FEBS area for scientific collaboration or advanced training, for one to three years. The aim of our Distinguished Young Investigator Award is to give recognition to FEBS Long-Term Fellows who have conducted excellent research during the tenure of their FEBS Fellowship.

The Award takes the form of a certificate and the sum of €10,000, which may be used at the discretion of the awardee to buy small pieces of equipment, specific consumable items or to defray conference, publication or similar expenses, but not as a salary.

Here we are pleased to feature three recent winners of the Distinguished Young Investigator Award – Arnaud Gautier, Emilie Pacary and Areti Pantazopoulou – who briefly outline their FEBS Fellowship work.

Applications for the FEBS Distinguished Young Investigator Award may be made throughout the year, including during the tenure of the Long-Term Fellowship, but not longer than 12 months after its completion. Further details are given at http://www.febs.org/index.php?id=372.

Arnaud Gautier

As a FEBS Long-Term Fellow with Dr Jason W. Chin at the Medical Research Council Laboratory of Molecular Biology in Cambridge, UK, from July 2009 to August 2010, I developed technologies to site-specifically incorporate photoactive amino acids into proteins in live mammalian cells using an engineered protein translation machinery. I demonstrated that site-specific mutation with unnatural photoactive amino acids could render proteins light-sensitive, enabling their activation by light and the control of their functions (e.g. localization, catalytic activity) with high spatiotemporal resolution.

The FEBS Distinguished Young Investigator Award allowed me to start an independent career at the Department of Chemistry of the École Normale Supérieure in Paris, France, where I was appointed Assistant Professor in September 2010. My current research interests are in the development of chemical biology tools to systematically perturb, interrogate and visualize biological processes.

Key references

Gautier, A., Nguyen, D.P., Lusic, H., An, W., Deiters, A. and Chin, J.W. (2010) Genetically encoded photocontrol of protein localization in mammalian cells. *J. Am. Chem. Soc*. 132, 4086-4088

Gautier, A., Deiters, A. and Chin, J.W. (2011) Light-activated kinases enable the temporal dissection of signaling networks in living cells. *J. Am. Chem. Soc.* 133, 2124-2127

Emilie Pacary

I have been a postdoc in Dr François Guillemot's lab (National Institute for Medical Research, London, UK) since January 2007 and in the first three years was supported by a FEBS Long-Term Fellowship. The aim of my project was to better understand how migration in neurogenesis is controlled by proneural transcription factors, focusing on the vertebrate embryonic cerebral cortex.

I showed that the proneural transcription factors Neurog2 and Ascl1/Mash1 activate distinct pathways in migrating cortical neurons and thereby control different phases of the migratory process in the developing cerebral cortex. Neurog2 and Ascl1/Mash1 induce the expression of the RhoGTP-binding protein Rnd2 and Rnd3, respectively, and the two Rnd proteins inhibit RhoA signalling in different compartments of the neuron to promote the extension of the leading process and the translocation of the nucleus, respectively.

I also worked with others on the role of the vascular-specific growth factor Angiopoietin-2 in embryonic neurogenesis and contributed to the identification of a novel function of Mash1 in progenitor proliferation.

(continued on next page)

In July 2012, I will start a new project in Dr D.N. Abrous' lab (Neurogenesis and Pathophysiology Group, Neurocentre Magendie, Bordeaux, France) to look at the role of Rnd proteins in the regulation of dendrite, spine and synapse formation in the developing hippocampus and their implication in hippocampal-dependent memory. This will offer potential insights for new therapeutic strategies for learning and memory disorders. One strategy to study the role of Rnd proteins in vivo will be to use in utero electroporation to knockdown *Rnd* expression. Towards this goal, I used the FEBS Distinguished Young Investigator Award to purchase an electroporator and a microinjector.

Key references

Pacary, E. et al. (2011) Proneural transcription factors regulate different steps of cortical neuron migration through Rnd-mediated inhibition of RhoA signaling. *Neuron* 6, 1069-1084

Marteau, L., Pacary, E., Valable, S., Bernaudin, M., Guillemot, F. and Petit, E. (2011) Angiopoietin-2 regulates cortical neurogenesis in the developing telencephalon. *Cereb. Cortex* 21, 1695-1702

Castro, D.S. et al. (2011) A novel function of the proneural factor Ascl1 in progenitor proliferation identified by genome-wide characterization of its targets. *Genes Dev.* 25, 930-945

Areti Pantazopoulou

As a FEBS Long-Term Fellow in the group of Prof. Miguel A. Peñalva in the Centro de Investigaciones Biológicas (CIB-CSIC) in Madrid, Spain, I studied the subcellular organization of membrane compartments and intracellular trafficking in the apically extending hyphal cells of the filamentous fungus *Aspergillus nidulans* (a genetically amenable organism that serves as an extreme example of cell polarity and polarized growth).

My work revealed that polarized growth is coupled to a remarkably polarized and highly dynamic network of unstacked Golgi cisternae that are resolvable by fluorescence microscopy, and showed that any alteration in Golgi organization by drugs or mutations is promptly reflected in growth rate and hyphal morphology. I showed that a key component of Golgi integrity is the Rab6 homologue RabC, and RabC localization studies revealed a level of qualitative variation of the Golgi organization dependent on its proximity to the hyphal tip, where secretion predominates.

I am currently exploiting the knowledge and tools produced during my FEBS Fellowship to study Golgi cisternal maturation and post-Golgi trafficking. The FEBS Distinguished Young Investigator Award gave me the opportunity to purchase a dedicated workstation for analysis of imaging data generated by multidimensional epifluorescence microscopy, which has already greatly facilitated this laborious and highly demanding task.

Key references

Pantazopoulou, A. and Peñalva, M.A. (2009) Organization and dynamics of the Aspergillus nidulans Golgi during apical extension and mitosis. *Mol. Biol. Cell* 20, 4335-4347

Pantazopoulou, A. and Peñalva, M.A. (2011) Characterization of Aspergillus nidulans RabC/Rab6. *Traffic* 4, 386-406

Peñalva M.A., Galindo, A., Abenza, J.F., Pinar, M., Calcagno-Pizarelli, A.M., Arst, H.N., Jr. and Pantazopoulou. A. (2012) Searching for gold beyond mitosis: mining intracellular membrane traffic in Aspergillus nidulans. *Cellular Logistics* 2, I2-14

FEBS Fellowships:

stipends supporting research training and mobility of able young scientists

For full details, go to the Fellowships section of the FEBS website: http://www.febs.org/index.php?id=81

POSTDOCTORAL FELLOWSHIPS

- Long-term Fellowships (up to 3 years)
- Return-to-Europe Fellowships (2 years)

PREDOCTORAL/POSTDOCTORAL SHORT FELLOWSHIPS (up to 3 months)

- Short-term Fellowships (for postdoctoral researchers and advanced predoctoral students)
- Summer Fellowships (for promising graduate students)
- Collaborative Experimental Scholarships for Central and Eastern Europe
- Chinese European Visiting Fellowships

FEBS Advanced Courses

FEBS Advanced Courses are organized by outstanding scientists throughout Europe, in a variety of formats: lecture courses, practical courses and workshops offer teaching, training and discussions that are of particular benefit to those at an early stage of a career in science or researchers moving into new fields, whereas Special Meetings are larger conferences for all scientists to keep abreast of developments in a very rapidly advancing area.

Participation of young scientists in lecture courses, practical courses and workshops can be supported by FEBS Youth Travel Fund (YTF) grants if applicants are members of FEBS Constituent Societies. Further eligibility criteria are given on the FEBS website YTF page. Applications for these awards should be addressed directly to the organizer of each course.

2012 courses

Registrations are still possible over the next few weeks for several FEBS Advanced Courses taking place in September to November this year. See the box below and on the next page for registration deadlines for each course, as well as an outline of the topics to be covered; for more details, click through to the individual course websites.

2013 courses

A few FEBS courses for 2013 are now ready to be announced, as listed on the next page. Keep an eye on the Advanced Courses section of the FEBS website (http://www.febs.org/index.php?id=692) over the coming months for more details and further courses.

The second deadline in 2012 for applications from prospective course organizers for courses in 2013 is 1st August 2012. Full guidelines for applications, which need to be made online through the FEBS website, can be found at http://www.febs.org/index.php?id=385.

Jaak Järv
Chair, FEBS Advanced Courses Committee
advanced.courses@febs.org

FEBS Advanced Courses 2012 (September–November)

Joint FEBS/EMBO Lecture Course

Novel Biophysical Approaches in the Investigation of the Cytoskeleton (27th European Cytoskeletal Forum Meeting)
Pecs, Hungary
November 3–7, 2012
Organizer: Dr Miklos Nyitrai, Email
Course website: http://events.embo.org/12-cytoskeleton/
DEADLINE FOR APPLICATIONS: JUNE 30, 2012

Topics: recent improvements in optical and other microscopic methods for live cell research, micro- and nanotechnology and single-molecule techniques; investigations on corresponding biological processes (a.o. calcium fluxes, membrane–cytoskeleton and nucleoskeleton–cytoskeleton interactions, cell migration, intracellular motility, motor proteins)

Special Meeting

Protein Quality Control and Ubiquitin Systems in Health and Disease
Kusadasi, Aydin, Turkey
November 14–16, 2012
Organizer: Dr Petek Ballar, Email
Course website: www.febs-ub2012.org
DEADLINE FOR APPLICATIONS: SEPTEMBER 28, 2012

Topics: all basic and applied aspects of protein quality control, ubiquitin systems, ubiquitin-mediated proteasomal degradation and autophagy

Advanced Lecture Courses

Pathogen–Host Interactions of Major Animal Infectious Diseases and Zoonoses
Spetses, Greece
September 9–15, 2012
Organizer: Dr Joachim Frey, Email
Course website: http://www.kas.unibe.ch/FEBS2012/
DEADLINE FOR APPLICATIONS: JUNE 15, 2012

Topics: bacterial, viral and parasitic infections in their natural animal hosts, including: disease epidemiology; host invasion; adhesion; the bacterial metabolome and virulence; intracellular survival; avoidance of innate and acquired immunity; cell and tissue damage; host response shaping viral evolution; evasion of intrinsic, innate and adaptive immunity; the molecular contribution of host and viral factors to disease

Lipid Signaling and Cancer
Sorrento (Naples), Italy
October 4–10, 2012
Organizer: Dr Daniela Corda, Email
Course website: http://febs2012.ibp.cnr.it/
DEADLINE FOR APPLICATIONS: JULY 17, 2012

Topics: lipid signaling (phosphoinositides, lysolipids and glycerophosphoinositols, sphingolipids); lipid signaling and cancer; lipids as drug targets in cancer treatment

Combined Practical & Lecture Courses

Microspectroscopy: Visualization of Protein Dynamics in Living Cells
Wageningen, The Netherlands
September 4–13, 2012
Organizer: Dr J.W. Borst, Email
Course website: www.microspectroscopy-course.eu
DEADLINE FOR APPLICATIONS: JULY 1, 2012

Topics: confocal microscopy, two-photon microscopy, photo-activatable imaging, single particle tracking, total internal reflection fluorescence microscopy, super-resolution and correlative microscopy, Förster resonance energy transfer (FRET), fluorescence lifetime imaging (FLIM), ratio-imaging microscopy, fluorescence correlation spectroscopy (FCS), multidimensional imaging, fluorescence recovery after photobleaching (FRAP)

Fundamentals of Modern Methods of Biocrystallography – BioCrys2012
Oeiras, Portugal
October 20–27, 2012
Organizer: Dr Maria Arménia Carrondo, Email
Course website: http://biocrys2012.itqb.unl.pt/
DEADLINE FOR APPLICATIONS: JULY 31, 2012

Topics: from fundamentals – such as symmetry, point groups and crystal systems, basic diffraction physics, reciprocal space and the Ewalds sphere, radiation damage, data processing, symmetry in the diffraction pattern, structure factors, and Patterson function – to modern methodologies including molecular replacement, SAD, MAD, MIR and maximum likelihood phasing, direct methods, density modification, refinement, model building, twinning and structure validation; also key challenges in sample preparation and crystallization of proteins, difficulties in structural studies of membrane proteins, future applications of free electron lasers in structural biology

Workshops

Dynamics of Cell Signal Systems
Oslo, Norway
September 27–30, 2012
Organizer: Dr Kjetil Taskén, Email
Course website: www.biotek.uio.no/workshop-2012/
DEADLINE FOR APPLICATIONS: AUGUST 13, 2012

Topics: dynamics of phospholipid and cyclic nucleotide signaling, spatiotemporal organization of small G-protein signaling cascades, dynamics of cell signal systems, kinase signaling networks and targeted therapies, cancer cell signaling, ubiquitin and SUMO signaling, organization of signaling from cell Interactions and microenvironment

Molecular and Cellular Mechanisms in Angiogenesis
Capri (Naples), Italy
October 14–17, 2012
Organizer: Dr Maria Patrizia Stoppelli, Email
Course website: capri2012.igb.cnr.it/
DEADLINE FOR APPLICATIONS: JULY 15, 2012

Topics: molecular factors and multiple cellular elements, mainly inflammatory cells, involved in new vessel formation; model systems of pathological angiogenesis, focusing on cancer and ocular neovascularization; latest advancements in therapeutic approaches to control neovascularization

Decisions in the Life of Immune Cells
(partially supported by FEBS)
Rehovot, Israel
November 26–27, 2012
Organizer: Prof. Idit Shachar, Email
Course website: http://www.weizmann.ac.il/ImmuneCellDecisions/
DEADLINE FOR APPLICATIONS: JULY 31, 2012
Topics: *recent advances in our understanding of the epigenetic control of cell identities, plasticity maintenance and immune cell communication with their surroundings*

FEBS Advanced Courses 2013 (first announcement)

Advanced Lecture Course

Nuclear receptor signaling in physiology and disease
Spetses, Greece; August 25–30, 2013
Organizer: Prof. Eckardt Treuter, Email

Practical Course

State-of the-art infection models for human pathogenic fungi
Jena, Germany; February 17 – March 2, 2013
Organizer: Prof. Bernhard Hube, Email

Workshops

Translating epigenomes into function: a next-generation challenge for human disease
Capri (Napoli), Italy
October 13–16, 2013
Organizer: Dr Sandro de Falco, Email

Nucleotide excision repair and interstrand crosslink repair – from molecules to man
Smolenice, Slovakia
June 9–13, 2013
Organizer: Dr Peter McHugh, Email

Upcoming FEBS Science and Society events

The FEBS Science and Society Committee will be sponsoring two lectures at the FEBS 3+ meeting in Opatija, Croatia, in June (a joint meeting of the Croatian, Hungarian and Slovenian FEBS Constituent Societies): 'What it takes to succeed in science – and how Europe's institutions could help' (Gottfried Schatz, Basel, Switzerland) and 'Genetically modified plants – are they useful and safe?' (Jacques-Henry Weil, Strasbourg, France). For further details on this FEBS 3+ event, go to http://febs3plus.imi.hr/.

At the IUBMB–FEBS Congress in Sevilla in September, Science and Society workshops focusing on AIDS and malaria are being organized by FEBS and the IUBMB, respectively. Over 30 million people worldwide are infected with HIV, with 95% of cases in developing countries, but antiretroviral treatment and HIV transmission prevention strategies are beginning to have an impact. The FEBS lectures on HIV/AIDS will be: 'Recent highlights from HIV research' (Simon Wain-Hobson, Paris, France) and 'Civil society activism and science: experiences gained fighting the HIV/AIDS epidemic' (Peter Hale, Washington DC, USA).

Huge strides have been made in malaria control in recent years, but around half the world's population is at risk of this disease and it still kills vast numbers (WHO estimate: 655,000 deaths in 2010) – mostly African children. The IUBMB lectures on malaria will be delivered by Virander S. Chauhan (New Delhi, India), Case McNamara (San Diego, CA, USA) and Shem Wanding (Nairobi, Kenya).

Women with children waiting to get tested for HIV in a clinic in Sare Alpha, Gambia. Image reproduced with permission of The Global Fund (http://www.theglobalfund.org/en/): © The Global Fund / John Rae.

Also at the IUBMB–FEBS Congress, the FEBS Science and Society Committee is jointly hosting two workshops on biochemistry and molecular biology education with the FEBS Education Committee – for more details see the next section.

Jacques-Henry Weil
Chair, FEBS Science and Society Committee

FEBS Education events

The FEBS Education Committee encourages the development of innovative teaching methods in biochemistry, molecular biology and related areas, disseminates advice on educational resources, and arranges workshops on educational issues.

Turkey (Izmir): 29–30 March, 2012

A FEBS 'Workshop on Biochemistry and Molecular Biology Education: Trends and Tips' recently took place in Izmir, Turkey. This workshop, conceived by the late Prof. Ed Wood when he was Chair of the Education Committee, was hosted by Prof. Nazmi Ozer, President of the Turkish Biochemical Society, and expertly coordinated by Prof. Ferhan Sagin, Chair of the Educational Activities of the Turkish Society of Biochemistry. The workshop provided an excellent platform for presentation and discussion of 'trends' in undergraduate education such as integration, problem-based learning (PBL) and task-based learning (TBL), as well as 'tips' for postgraduate students for excellence in research, and for science communication in various settings. It was attended by 105 participants (including the workshop leaders and speakers).

Speakers at the workshop comprised FEBS Education Committee members (Keith Elliott, Tomáš Zima, Angel Herráez, Wolfgang Nellen, Karmela Barišić and Gül Güner-Akdoğan), Jacques-Henry Weil (Chair of FEBS Science and Society Committee), Félix Goñi (Former Chair of FEBS Publications Committee), Detlev Riesner (Quiagen, Germany), Karen Mattick (Peninsula Medical School, UK), Ferhan Sagin (Izmir), Tomris Ozben (Antalya, Turkey) and Hakan Abacioglu (Izmir).

(left) Gül Güner-Akdoğan introducing the educational activities of FEBS at the opening of the workshop; (right) Jacques-Henry Weil, on the left of the picture, leading the 'Meet the Expert Session' on 'Science and society dialogue', attended by educators and young scientists.

The scientific programme was made more interactive with 'Meet the Expert Sessions', organized according to the choices of the participants. The issues discussed included: PBL in Dokuz Eylul, Izmir (Gül Güner-Akdoğan), PBL in Manchester, UK (Keith Elliott), TBL (Ferhan Sagin), 'New technologies and making educational use of them' (Angel Herráez), 'Medical faculties network' (Tomáš Zima), 'Internet searching' (Angel Herráez), 'CV writing' (Keith Elliott), 'Funds and programmes' (Tomáš Zima), 'How to make a scientific presentation' (Hakan Abacioglu) and 'Science and society dialogue' (Jacques-Henry Weil).

In addition to these sessions, a poster display (encompassing 55 posters) on educational issues attracted much attention and provided the opportunity for more interaction. At the closing session, prizes were presented for the three best posters. The workshop concluded with a gala dinner, overlooking the beautiful Izmir bay.

Postgraduate student participation in the meeting was (happily) dominant (two-thirds of the participants) and made possible by strong local support. The Turkish Foundation of Science and Technology provided internal travel and accommodation fellowships for 25 PhD students from all over Turkey. In addition, the City of Balcova (Izmir) offered registration for 40 students living in the Izmir region.

In a pilot project, chapters of textbooks from Wiley (the publishing partner of *FEBS Journal*) related to the workshop themes were made available to workshop participants via the FEBS Education Platform (accessible from the FEBS website education page, and managed by Peter Ott).

The arrangements in the fascinating Thermal Hotel of Kaya-Izmir were very well organized by the Turkish Biochemical Society Izmir Branch, and smooth running of the meeting was aided by the student support team (wearing orange t-shirts, as seen on the cover of this issue of *FEBS News*), chaired by Ferhan Sagin.

Our appreciation goes to everyone who made this workshop possible. In oral and written feedback, obtained from all participants, 88.2% rated the workshop as 'excellent' and 11.8% as 'very good'.

Education workshops at the IUBMB–FEBS Congress

We are now looking forward to an interesting range of education activities at the IUBMB–FEBS Congress in Sevilla in September, including a plenary lecture by Bruce Alberts, two workshops focused on undergraduate and postgraduate biochemistry and molecular biology education ('Teaching molecular evolution: a unifying principle of biochemistry' and 'Research into effective teaching strategies: what biochemistry is learning from other sciences'), a workshop on school science education, and a poster session. These events have been organized by the FEBS Education Committee, in various collaborations with the IUBMB Committee on Education, the FEBS Science and Society Committee, and the Spanish Society for Biochemistry and Molecular Biology. For more details of these events, see the Biochemical Education section of the Congress website (http://www.iubmb-febs-2012.org/IUBMBFEBS2012/index.asp?item=2215).

Education workshops in Yerevan and Cambridge

Following the Congress, two further FEBS education workshops are scheduled for 2012: in Yerevan, Armenia (8–9 October); and in Cambridge,

UK (17–18 December). Both are open to interested participants from other countries as well.

Full details of the Yerevan workshop, organized with the Armenian Association of Biochemists, can be seen via the FEBS website at http://www.febs.org/index.php?id=282. Several 'internal young scientist fellowships' (IYFs) are available to support attendance of scientists based in Armenia, but outside Yerevan.

The Cambridge workshop, held jointly with the UK Biochemical Society, will focus on improving the student experience and the teaching of transferable employment skills. Further details will be announced on the FEBS website shortly.

Gül Güner-Akdoğan (gul.guner@deu.edu.tr)
Chair, FEBS Education Committee

FEBS in Brazil

Science in Brazil has undergone dramatic changes in recent years. Brazil currently produces half a million graduates and 10,000 PhDs a year – ten times more than two decades ago. Between 2002 and 2008 its share of the world's scientific papers rose from 1.7% to 2.7%. It is a world leader in research on tropical medicine, bioenergy and plant biology. Most significantly, Brazil spends ~1% of its fast-growing GDP on research – half that spent by many advanced economies but almost double the average in the rest of Latin America. Its scientists are increasingly collaborating with those abroad: 30% of scientific papers by Brazilians now have a foreign coauthor.

These impressive developments have led FEBS to begin to establish closer contacts with the Brazilian community of molecular life sciences. As a first step in that direction, FEBS recently participated in the XLI Annual Meeting of the Brazilian Biochemistry and Molecular Biology Society (SBBq), which took place from 19th to 22nd May 2012 in Foz do Iguaçu, in the state of Paraná. Following consultation with the SBBq leadership, a symposium sponsored by FEBS on Protein Structure–Function relations was organized, with lectures by Prof. Sir Alan Fersht (Cambridge, UK) and Prof. Dr Christian Griesinger (Göttingen, Germany), and this attracted a huge audience to a packed lecture hall.

The SBBq meeting was attended by close to 2000 participants from all over Brazil. Dozens of workshops and symposia kept the participants rather busy throughout the four days of the meeting and one of the main highlights were the poster sessions, which brought together crowds of enthusiastic presenters and discussants to lively debates around the boards. This unique gathering was also an opportunity to promote FEBS activities and, more significantly, the journals of FEBS, through a short opening presentation and a booth where information and samples of our journals were provided. We hope that these activities will initiate closer and long-standing contacts between our Brazilian colleagues and the European biochemical communities.

Israel Pecht
FEBS Secretary General

Speakers at the FEBS-sponsored symposium on Protein Structure–Function: (above left) Alan Fersht ('Rescuing oncogenic mutants of p53'); (above right) Christian Griesinger ('Fuzziness of globular and aggregating proteins in neurodegeneration: an NMR spectroscopic view'). The photo to the immediate right shows László Fésüs, Chair of the FEBS Publications Committee, introducing the journals of FEBS to SBBq meeting participants.

News from other European science organizations

News from the Initiative for Science in Europe

'Strengthening the European Research Area'
Barcelona, Spain; 3–4 May 2012

Scientific activity has always been international. More than a third of all scientific publications in the EU have authors from at least two different countries. Research funding, however, does not follow – over 90% of research funding is still national. To develop solutions for cross-border research funding, the Initiative for Science in Europe (ISE) therefore recently welcomed high-level representatives from EU member states, the European Commission and the European Parliament for discussions with scientists at a conference in Barcelona entitled 'Strengthening the European Research Area: What does science need to flourish?' ISE unites European learned societies and scientific organizations, including **FEBS**, to advocate the involvement of scientists in European science policy.

To achieve most impact in Europe, a stronger role for Europe-wide funding schemes seems to be the way forward, where the best ideas compete for funding and there is no penalty for projects involving research teams from different countries. The European Research Council (ERC) shows that a central approach can work in a science-driven and efficient way. However, we have to face political reality: the EU-budget will not be increased substantially. Therefore, a different approach is rapidly gaining importance: coordination of national research money. For that purpose, more and more structures, multilateral funding schemes and instruments are evolving. As the complexity of the system increases, it is getting more difficult for the individual researcher to keep up to date on the calls, funding rules and regulations.

Octavio Quintana-Trias, European Commission; and Helga Nowotny, President of the European Research Council.

One of the recommendations of the conference was therefore to maintain a tool that lists the calls suitable for applications from individuals. Another key conclusion of the conference was to ensure a strong role of scientists in the establishment of the research agenda (e.g. through structures such as Joint Programming Initiatives). A full report of the conference conclusions will be available on the ISE website shortly.

Wolfgang Eppenschwandtner
Executive Coordinator, ISE
ISE website: http://www.i-se.org

News from the Alliance for Biomedical Research in Europe

'The Future of Health Research and Innovation in Europe'
Brussels, Belgium; 23 May 2012

In the context of the proposed EU's Framework Programme for Research & Innovation (2014–2020) – Horizon 2020, the Alliance for Biomedical Research in Europe (BioMed Alliance) recently organized a high-level meeting with the European Commission and other health research stakeholders. The event took place on 23rd May in Brussels at the Belgian Royal Academy of Medicine. It focused on identifying the current challenges faced by the biomedical research community, and sought to propose means to overcome these problems in the future.

The BioMed Alliance – representing some 20 major European health research organisations and around 250,000 biomedical researchers – formed in 2010 to give the European research community a clear, co-ordinated voice to help boost research and keep Europe competitive. President Ulf Smith explained the need for such a body. "We assessed the numerous challenges facing Europe today in terms of health research and innovation: the disjointed research landscape, poor investment in health compared to our international competitors, the need for improved priority-setting of the research agenda and the

ageing population. After discussion on these huge obstacles, we knew we had to act."

FEBS is a member of the BioMed Alliance and attended the high-level event. One idea proposed by the BioMed Alliance was the creation of a European Council for Health Research. Such a Council could act to mobilize biomedical research through actions such as better long-term strategic planning of biomedical research programmes, coordination of research funding, and the promotion of deeper and sustainable collaborative research that spans the full innovation cycle from research to market. Moreover, this scientific-led body would break down traditional barriers between medical disciplines, encourage cross-talk and encourage long-term multidisciplinary partnerships.

The need to combat current fragmentation, both in terms of funding and biomedical research disciplines, the need to attract and encourage young researchers and the need to work towards new funding and research models were also debated at the meeting, and strategic examples of how to combat such challenges were demonstrated. While the full next steps are currently being defined, the message was clear from all stakeholders attending: action is essential to increase the competitiveness and innovation of biomedical research in Europe in such a way that it improves the quality of lives of citizens.

Ruxandra Draghia-Akli, Director, DG RTD, European Commission; and Ulf Smith, President, Alliance for Biomedical Research in Europe.

The BioMed Alliance Executive Board:
Prof. Ulf Smith, President
Prof. Julio E. Celis, Vice President
Prof. Karin Sipido, Vice President
Prof. Laurent P. Nicod, Treasurer

Further information on the BioMed Alliance is available at *http://www.biomedeurope.org/*

EMBL-EBI

News from the EMBL-European Bioinformatics Institute

Launch of new resources

The European Bioinformatics Institute (EMBL-EBI), based near Cambridge in the UK, maintains the world's most comprehensive range of freely available and up-to-date molecular databases, and develops tools for data submission, and analysis. EMBL-EBI services are developed in collaboration with colleagues worldwide, and span genomics, gene expression, proteomics, structures, cheminformatics, reactions, interactions, ontologies, literature, and systems. Here, we introduce some of our new services.

Enzyme Portal, a new resource for people interested in the biology of enzymes and proteins with enzymatic activity, mines data from many public repositories via a single search, and displays information on biochemical reactions, biological pathways, small molecule chemistry, disease, 3D protein structures and relevant scientific literature. It summarizes information from the UniProt knowledge base; the Protein Data Bank in Europe; Rhea, a database of enzyme-catalyzed reactions; Reactome, a database of biochemical pathways; IntEnz, a resource with enzyme nomenclature information; ChEBI and ChEMBL, which contain information about small molecule chemistry and bioactivity; and CoFactor and MACIE for highly detailed, curated information about cofactors and reaction mechanisms. The Enzyme Portal was created and designed based entirely on demand and feedback from users. www.ebi.ac.uk/enzymeportal

MetaboLights is a new database that provides a comprehensive, cross-species, cross-platform resource combining reference data on metabolites, information about their occurrence and differences in concentration between species, organs, tissues and cell types under various conditions. It also allows ready cross-referencing between experiments. MetaboLights is useful for studies ranging from toxicity assessment of chemical compounds to discovering metabolites that can be used as biomarkers to diagnose disease. MetaboLights is a joint project between EMBL-EBI and the UK's Medical Research Council – Human Nutrition Research. www.ebi.ac.uk/metabolights

PRIDE Inspector is an open-source, user-friendly tool that offers new ways to review, evaluate and reuse mass spectrometry proteomics data. It mines proteomics data in the PRIDE

database, making it easy for researchers and journal reviewers to examine datasets that support publications. PRIDE Inspector lets you view the data in different ways, emphasizing metadata, spectrum, peptide, protein or quantitative information. http://code.google.com/p/pride-toolsuite/

PhytoPath helps researchers make the most of the vast quantities of data produced in sequencing experiments, for example genomes, gene expression and sequence variation, by integrating them with curated information about infectious phenotypes. It also provides several analysis tools to help researchers compare predicted gene repertoires of pathogens with similar (or dissimilar) lifestyles. Using the Ensembl Genomes browser, PhytoPath provides access to complete genome assembly and gene models of agriculturally important fungal and oomycete plant pathogens. It links genes to experimentally verified functional information on disease progression in the host using data from PHI-base, a curated resource that describes interactions between pathogens and their hosts as well as the intervention targets of commercially used anti-infective chemistries. Developed with funding from the Biotechnology and Biological Sciences Research Council (BBSRC), PhytoPath is a collaboration between EMBL-EBI and Rothamsted Research in the UK. www.phytopathdb.org

EBI Metagenomics provides insights into the functional and metabolic potential of a sample. The service makes extensive use of state-of-the art algorithms and resources such as InterPro for functional analysis of the raw sequence data. InterPro uses diagnostic models to classify sequences into families and predict the presence of functionally important domains and sites. By utilising InterPro, EBI Metagenomics offers a powerful and sophisticated alternative to BLAST-based functional metagenomic analyses. Data submitted to the EBI Metagenomics service is automatically archived in the SRA, which is part of the European Nucleotide Archive (ENA). Accession numbers are supplied for sequence data as part of the archiving process, which is a prerequisite for publication in many journals. All the public datasets held in the repository can be browsed freely. As this service is in beta, we encourage users to take a look and let us know their thoughts.

For more information visit www.ebi.ac.uk or contact Mary Todd Bergman, External Relations, EMBL-EBI by email: outreach@ebi.ac.uk

ECCO EUROPEAN CANCER ORGANISATION

News from the European CanCer Organisation

Upcoming EORTC-NCI-AACR Symposium

The ultimate goal of ECCO – the European CanCer Organisation – is to raise awareness and improve prevention, diagnosis, treatment and care of cancer patients. Promoting interaction between all organisations involved in cancer research, education, treatment and care at the European level through a variety of prestigious meetings and events is central to achieving this.

One important upcoming meeting is the 24th EORTC-NCI-AACR Symposium on *Molecular Targets and Cancer Therapeutics,* 6–9 November 2012 in Dublin, Ireland, hosted by the European Organisation for Research and Treatment of Cancer, the National Cancer Institute and the American Association for Cancer Research. The Symposium has become a unique and internationally recognized forum for participants to discuss innovations in drug development, target selection and the impact of new discoveries in molecular biology, and attracts over 2000 academics, scientists and pharmaceutical industry representatives from across the globe.

In addition to an outstanding range of both Plenary and Special Sessions, several lively Workshops have been specifically designed to facilitate optimal interaction and discussion. Topics include: KRAS Mutated Tumours, New Challenges in Immunotherapy, Imaging, Targeting Cell Death, MEK/ERK Inhibitors and Challenges in Phase I. The best abstracts will be presented in two Proffered Paper Sessions.

Registration is currently open, with regular-rate registration closing on 8th October 2012. For more information, visit www.ecco-org.eu/ENA.

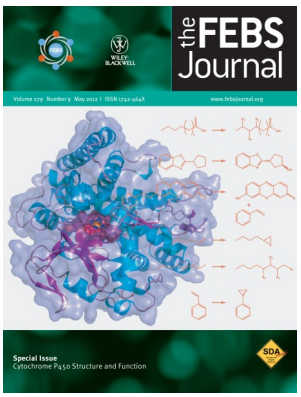
ECCO website: http://www.ecco-org.eu/

Dear Fellow Scientists,

Here is some of the latest news from *FEBS Journal*. Full information can be found on our website www.febsjournal.org, where you can also register your interest in receiving regular alerts of new articles published in the journal.

New Member of the Editorial Board

We are pleased to announce that a new Editor has recently been appointed: Mathias Ziegler, Professor of Molecular Biology and Functional Genomics at Bergen University in Norway. His research interests are currently centred on NAD as a signalling molecule. His general areas of expertise are ADP-ribosylation, metabolism, bioenergetics and enzymology. More about our new Editor can be found on the *FEBS Journal* website.



Special Issue

Our latest *FEBS Journal* Special Issue *Cytochrome P450 structure and function*, published in April (*FEBS J.* 279/9), was compiled by Andrew W. Munro and David Leys (University of Manchester, UK). The issue includes both reviews and regular papers reflecting the impact of cytochrome P450-related research in fields as diverse as steroid metabolism, plant biochemistry, structural biology and biotechnology. It can be accessed via the Wiley Online Library.

Virtual Issues

The latest *FEBS Journal* Virtual Issue is on *Glycosylation*, compiled by Editor Dan Michele. It is accompanied by a podcast, which can be accessed via the *FEBS Journal website*. This issue highlights recent papers in the journal demonstrating:
(1) how state-of-the-art high-throughput and high-sensitivity glycomic approaches are deciphering new glycomic profiles to shed light on biological mechanisms and pathomechanisms of disease;
(2) the mechanisms of how important cellular and protein functions are directly mediated by post-translational protein glycosylation; and
(3) the translation of these newly found mechanisms toward novel 'glyco-therapies' for treating important human diseases.

Coming soon: A new Virtual Issue on *Molecular Enzymology*, compiled by Editor Nigel Scrutton.

Winner of a *FEBS Journal* poster prize

A *FEBS Journal* poster competition took place at the Annual Meeting of the European Consortia on *Activation of vasculature associated stem cells and muscle stem cells for the repair and maintenance of muscle tissue (Endostem)* and *Optimization of stem cell therapy for degenerative epithelia and muscle diseases (Optistem),* Sitges, Barcelona, Spain, from 2nd to 5th April 2012.

We warmly congratulate the prizewinner Ombretta Guardiola from the Institute of Genetics and Biophysics, Naples, Italy, for her excellent poster:
Cripto is required in adult satellite cells to regulate skeletal muscle regeneration and modulates satellite cell determination by antagonizing Myostatin, O. Guardiola, P. Lafuste, S. Brunelli, S. Iaconis, T. Touvier, P. Mourikis, G. Andolfi, S. Tajbakhsh, G. Cossu, P. Carmeliet & G. Minchiotti

Reviews

Reviews and minireviews published in *FEBS Journal* cover a diverse range of topics, as shown by the recent examples highlighted on the next pages. Illustrated abstracts give a summary of the contents of each article or series.

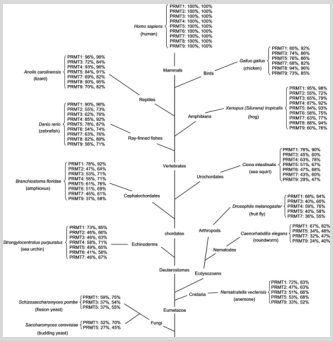
Reviews and minireviews can be read online and downloaded free of charge from the time of publication via a hotlink from the *FEBS Journal* website.

We hope you will join us at the IUBMB–FEBS Congress in Sevilla in September and look forward to seeing you there.

With best wishes from us all at *FEBS Journal*,

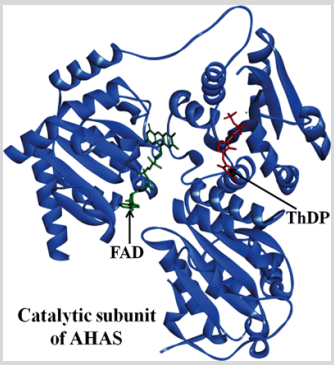
Richard Perham, Editor-in-Chief
Vanessa Wilkinson, Editorial Manager
Giannina Bartlett, Editorial Assistant
Juanita Goossens-Roach, Editorial Assistant
Lucy White, Editorial Assistant

FEBS Journal Reviews



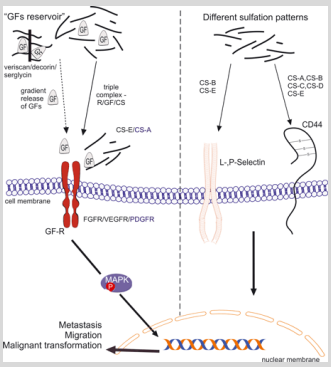
Evolutionarily conserved protein arginine methyltransferases in non-mammalian animal systems
Y-C. Wang & C. Li (Vol. 279/6)

Homologous protein arginine methyltransferases (PRMTs) of nine human PRMTs in non-mammalian animal species were surveyed. The paper summarizes the basic functions of each PRMT and focuses on the PRMTs in the non-mammalian animal models. The studies complement the understanding of the PRMT functions in mammals and provide valuable information for the evolution, critical roles and interplays of the PRMTs.



Bacterial acetohydroxyacid synthase and its inhibitors: a summary of their structure, biological activity and current status
V. Gedi & M-Y. Yoon (Vol. 279/6)

Acetohydroxyacid synthase (AHAS) is a key regulatory enzyme in the branched chain amino acid biosynthesis pathway. In certain pathogenic bacteria, the inhibition of AHAS has emerged as a potential strategy in developing antimicrobial agents. This review highlights the structural and functional features of bacterial AHASs and provides a detailed overview of its inhibitors.



Glycosaminoglycans: key players in cancer cell biology and treatment
N. Afratis, C. Gialeli, D. Nikitovic, T. Tsegenidis, E. Karousou, A. D. Theocharis, M. S. Pavão, G. N. Tzanakakis & N. K. Karamanos (Vol. 279/7)

Glycosaminoglycans (GAGs), natural heteropolysaccharides, are among the key macromolecules that affect cell properties and functions. This review highlights their contribution in several steps of cancer cell signaling, growth and progression based on their fine structural characteristics, and the enzymes involved in their turnover. Prospects related to GAG-based therapeutic targeting in cancer are also discussed.

FEBS Journal Minireview Series

OmpA biochemistry, introduced and coordinated by Rosetta Reusch, Michigan State University, USA (Vol. 279/6 and accompanied by a podcast)

OmpA of *Escherichia coli* and OprF of *Pseudomonas aeruginosa* are paradigms for studies of the biogenesis and functions of outer membrane proteins. Yet despite several decades of investigation there remain many questions regarding the structure, method of assembly, and roles in pathogenesis of these two homologs. The most recent and persuasive information is provided in the three minireviews.

Parkinson's disease, introduced and coordinated by Mauro Fasano, University of Insubria, Italy (Vol. 279/7 and accompanied by a podcast)

Parkinson's disease is the most common neurodegenerative movement disorder. Although it is mostly a sporadic disorder, 15–30% of all cases are linked to a genetic background. For this reason, several cellular and animal models have been developed to investigate disease etiology and pathogenetic mechanisms. A number of clinical issues cannot be investigated using models, thus making post-mortem studies necessary to complete the picture.

(continued on next page)

FEBS Journal Minireview Series (continued)

Quinolinic acid and neurotoxicity, introduced and coordinated by Gilles Guillemin, University of South Wales, Australia (Vol. 279/8)

This minireview series reviews some of the most recent findings concerning quinolinic acid's cellular toxicity and its implications in diseases such as HIV-associated neurocognitive disorders, depressive disorders and schizophrenia. Therapeutic strategies with drugs able to interfere with quinolinic acid production and/or effects are also described.

ESCRT connections, introduced and coordinated by Masatoshi Maki, Nagoya University, Japan (Vol. 279/8)

Apparently unrelated systems often merge and work together to achieve diverse biological functions. This minireview series aims to unveil new facets of ESCRTs and calpains: ESCRT proteins in MVB formation, virus budding and cell division; the ambient pH sensing and adaptation in association with ESCRTs and the calpain system; and evolutionary and physical linkage between calpains and PEF proteins.

Silicateins, introduced and coordinated by Werner Müller and Xiaohong Wang, University of Mainz, Germany (Vol. 279/10)

Silicateins are the enzymes that have been identified in sponges, then sequenced and expressed. They are not only the enzymes facilitating biosilica synthesis but they also function as structure-guiding and structure-forming proteins. The three minireviews highlight the principles of silicatein-mediated biosilica formation and outline the bionic strategies which might be used for the design and fabrication of novel materials.

Dear Fellow Scientists,

Spring has definitely come to our doors and everything seems to awake from the winter slumber and rejoice in the warming sun, giving back energy and new life to nature. It is no different in our *FEBS Letters* Editorial Office. We very warmly congratulate our colleague Daniela from our 'outstation' in Barcelona, Spain, on her new baby, Andreas. We wish Daniela, Andreas and the whole family all the best and a lot of happiness and nice moments in the coming months and years.

Also the beginning of this year brought changes to our Editorial Board. We are sad to see our long-serving Academic Editor Masayuki Miyasaka leave our journal. Masayuki was one of our few editors with deep knowledge in the field of immunology and his expertise had a great impact on the development and success of *FEBS Letters* in the past decade. On this occasion we would like to deeply thank Masayuki for his commitment and outstanding work.

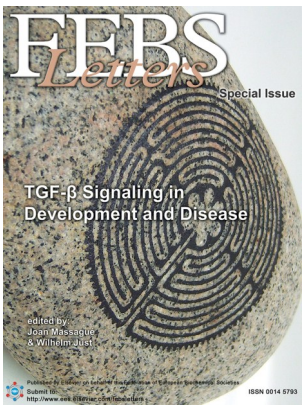
At the same time we are pleased to welcome a new Academic Editor, Kazuhiro Iwai, who joined our Editorial Board in May. Kazuhiro is a Professor at Kyoto University in the Department of Molecular and Cellular Physiology of the Graduate School of Medicine. His main areas of expertise are mammalian iron metabolism, NF-κB activation and ubiquitin signalling. Although still young, Kazuhiro has a very impressive publication record and we are looking forward to a productive and successful collaboration in the future.

As usual, the beginning of the year brought another business meeting. This time around we organized the meeting at Elsevier's headquarters in Amsterdam, The Netherlands, with the participation of *Molecular Oncology*, *FEBS Open Bio* and several members of the FEBS Publications Committee, where we evaluated our performance in

2011 and discussed various activities, specifically in the light of current trends and future changes in scientific publishing.

In preparation for the upcoming FEBS Congress in Sevilla in September, we are in the process of selecting the next prize winner of our Young Group Leader Award. The Prize Committee meeting will be held in June in Barcelona. The *FEBS Letters* Young Group Leader Award is given to an independent scientist, aged 40 years or younger, who is the corresponding author of an outstanding research letter published in the previous calendar year. The winner will give a plenary lecture at the FEBS Congress and will receive a prize of €10,000.

Finally, we would like to draw your attention to our upcoming Special Issue 'TGF-β Signaling in Development and Disease', edited by Joan Massagué and Wilhelm Just. As the prominence of the transforming growth factor β (TGF-β) pathway in development and disease became increasingly clear, so did the realization that many aspects of the TGF-β signal transduction process were inadequately understood. The Special Issue covers recent progress in recognizing and elucidating these important gaps in our knowledge.



As always, we look forward to receiving your manuscripts.

Best wishes,
Felix Wieland, Managing Editor
Aleksander Benjak, Editorial Manager
Daniela Ruffell, Editor
Anne Rougeaux, Editorial Assistant

Top 10 most downloaded articles in *FEBS Letters*
(over the past 90 days at 22 May 2012)

Metabolic adaptations through the PGC-1α and SIRT1 pathways
9 January 2008
Joseph T. Rodgers | Carles Lerin | Zachary Gerhart-Hines | Pere Puigserver

p53 regulation by ubiquitin
16 September 2011
Christopher L. Brooks | Wei Gu

microRNA biogenesis and function in plants
31 October 2005
Xuemei Chen

The molecular basis of neurodegeneration in multiple sclerosis
1 December 2011
Hans Lassmann | Jack van Horssen

Sleep and circadian rhythms: Key components in the regulation of energy metabolism
9 January 2008
Aaron D. Laposky | Joseph Bass | Akira Kohsaka | Fred W. Turek

Protein kinase C isoforms: Mediators of reactive lipid metabolites in the development of insulin resistance
21 January 2011
Sophie Turban | Eric Hajduch

How Salmonella oxidises H2 under aerobic conditions
9 March 2012
Alison Parkin | Lisa Bowman | Maxie M. Roessler | Rosalind A. Davies | Tracy Palmer | Fraser A. Armstrong | Frank Sargent

Collaboration and competition between DNA double-strand break repair pathways
10 September 2010
Elizabeth M. Kass | Maria Jasin

Receptors and signaling mechanisms for B-lymphocyte activation, proliferation and differentiation – Insights from both in vivo and in vitro approaches
15 December 2010
Ravi Maddaly | Govind Pai | Shruti Balaji | Priya Sivaramakrishnan | Lakshmi Srinivasan | Sukanya Shyama Sunder | Solomon F.D. Paul

'Green mice' as a source of ubiquitous green cells
5 May 1997
Masaru Okabe | Masahito Ikawa | Katsuya Kominami | Tomoko Nakanishi | Yoshitake Nishimune

For complete and up-to-date lists, go to the *FEBS Letters* website most-downloaded and most-cited links.

Dear Fellow Scientists,

FEBS Open Bio has made a good start in its first few months of operation, with eight articles published in April 2012 – as many as in the previous three months. Most submissions are currently cascaded from the other FEBS publications (*FEBS Journal*, *FEBS Letters* and *Molecular Oncology*) but there have been several direct submissions and we hope the number of these will increase in the coming months.

Submissions are peer reviewed by our distinguished Editorial Board, with the main criteria being:

- Does the paper report on original, primary work?
- Are the experiments technically sound and appropriately described?
- Do the data support the conclusions?

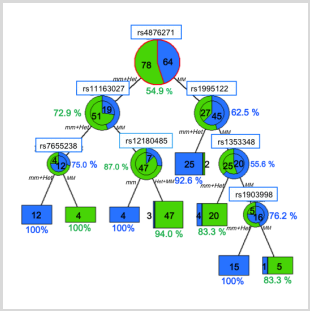
Reasons to submit to *FEBS Open Bio*:

- First decision within 15 days of submission
- Freely available online within 5 days of acceptance

Please take a look at some of the recently published papers. Highlighted articles are featured in the box below.

With best wishes,
Mary Purton, Executive Editor

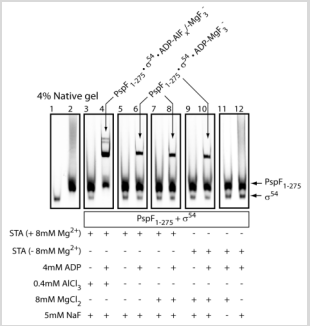
FEBS Open Bio highlighted articles



Using decision tree learning to predict the responsiveness of hepatitis C patients to drug treatment

Authors: Yoshihiro Kawamura, Shigeru Takasaki and Masashi Mizokami

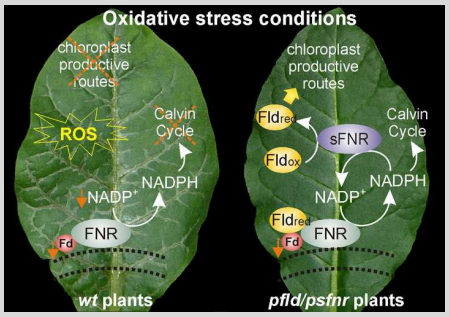
Many patients infected with chronic hepatitis C virus (HCV) will not be cured by the recommended treatment of a 48-week course of PEG-IFN-α with RBV. Kawamura et al. used decision tree learning based on SNPs in a genome-wide association study to model drug responsiveness. This model can predict with 93% probability whether a new patient with HCV genotype 1 will be helped by drug treatment.



Formation of MgF_3^--dependent complexes between an AAA+ ATPase and σ54

Authors: Nan Zhang, Martin Buck

The initiation of bacterial σ^{54}-dependent transcription relies on members of the AAA+ ATPase protein family. AAA+ ATPases couple the chemical energy of ATP hydrolysis to mechanical force on a macromolecular substrate. In this study, the ATP analog ADP-MgF_3^- is used to 'trap' an AAA+ ATPase with its target σ^{54}. This work has implications both for understanding the mechanisms of σ^{54}-dependent transcription and also for structural studies of AAA+ ATPases.



An in vivo system involving co-expression of cyanobacterial flavodoxin and ferredoxin–$NADP^+$ reductase confers increased tolerance to oxidative stress in plants

Authors: Mariana Giró, Romina D. Ceccoli, Hugo O. Poli, Néstor Carrillo, Anabella F. Lodeyro

Oxidative stress in plants causes ferredoxin down-regulation and $NADP^+$ shortage, over-reduction of the photosynthetic electron transport chain, electron leakage to oxygen and generation of reactive oxygen species (ROS). Co-expression of a cyanobacterial flavodoxin and ferredoxin–$NADP^+$ reductase in the chloroplasts of tobacco plants significantly increases oxidative stress tolerance conferred by flavodoxin alone. The results underscore the importance of chloroplast redox homeostasis in plants exposed to adverse conditions, and provide a tool to improve crop tolerance toward environmental hardships.

Dear Fellow Scientists,

In recent years there have been enormous advancements in basic research, leading to insights into cancer biology that offer new possibilities for improving prevention, early detection and therapeutics. To effectively address the increasing challenges, cancer medicine must be more predictive and personalized, with effective preventive and early detection programs as well as treatments that significantly increase survival and cure rates. In April 2012 *Molecular Oncology* published a Special Issue on 'Personalized Medicine', edited by John Mendelsohn, Ulrik Ringborg and Richard Schilsky. The issue discusses important areas in the cancer research continuum needed for development of personalized cancer medicine, ranging from cancer biology and clinical investigation, through biomarkers, radiation therapy and immunotherapy, to comparative effectiveness research to evaluate outcomes and economic consequences of implementation of personalized cancer medicine. Due to the complexity of the field, it has not been possible to cover all areas of importance for development of personalized cancer medicine in this issue; we hope, however, that the areas highlighted will stimulate more effective and rapid translation of cancer research into personalized cancer medicine.

We would also like to draw your attention to our upcoming Special Issue entitled 'Cancer Epigenetics', edited by Manel Esteller.

As always, we look forward to receiving your manuscripts.

Best wishes,
Julio E. Celis, Editor-in Chief
José Moreira, Managing Editor
Dorte Perdersen, Editorial Assistant

Special Issue: Personalized Medicine

edited by John Mendelsohn, Ulrik Ringborg and Richard Schilsky

Mol. Oncol. (2012) Vol. 6, Issue 2

Contents:

WWW of Upcoming Events

What: Rab GTPases and their interacting proteins in health and disease
When: 11–13 June 2012
Where: Cork, Ireland
http://www.biochemistry.org/Conferences/AllConferences/tabid/379/MeetingNo/SA138/view/Conference/Default.aspx

What: The FEBS3+ Meeting "From Molecules to Life and Back" Joint Congress of the Croatian Society of Biochemistry and Molecular Biology, Hungarian Biochemical Society and Slovenian Biochemical Society
When: 13–16 June 2012
Where: Opatija, Croatia
http://febs3plus.imi.hr

What: 4th International Congress on Cell Membranes and Oxidative Stress: Focus on Calcium Signaling and TRP Channels
When: 26–29 June 2012
Where: Isparta, Turkey
www.cmos.org.tr/2012/

What: 22nd Biennial Congress of the European Association for Cancer Research
When: 7–10 July 2012
Where: Barcelona, Spain
http://eacr22.eacr.org/index.php

What: 2012 Congress of the European Proteomics Association
When: 9–12 July 2012
Where: Glasgow, Scotland, UK
www.eupa2012.org

What: How bugs kill bugs: progress and challenges in bacteriocin research
When: 16–18 July 2012
Where: Nottingham, UK
www.biochemistry.org/MeetingNo/SA140/view/Conference/

What: 72nd Harden Conference - RNA regulators of gene expression
When: 22–25 July 2012
Where: Cambridge, UK
http://www.biochemistry.org/Conferences/AllConferences/tabid/379/MeetingNo/72hdn/view/Conference/Default.aspx

What: The 30th World Congress of Biomedical Laboratory Science
When: 18–22 August 2012
Where: Berlin, Germany
www.ifbls-dvta2012.com

What: 73rd Harden Conference - Machines on genes II - The central dogma at the interface of biology, chemistry and physics
When: 19–23 August 2012
Where: Oxford, UK
http://www.biochemistry.org/Conferences/AllConferences/tabid/379/MeetingNo/73hdn/view/Conference/Default.aspx

What: Fourth John Innes – Rudjer Bošković Summer School in Applied Molecular Microbiology on "Microbial Metabolites in Nature and Medicine"
When: 25 August – 2 September 2012
Where: Dubrovnik, Croatia
www.jic.ac.uk/science/molmicro/summerschool

What: Annual Meeting of the German Biophysical Society (DGfB) 2012
When: 23–26 September 2012
Where: Göttingen, Germany
www.biophysical-congress.de

What: Second International Symposium on Protein Trafficking in Health and Disease
When: 26–28 September 2012
Where: Hamburg, Germany
www.trafficking-symposium2012.de

What: Annual Meeting of the German Society of Medical Physics (DGMP) 2012
When: 26–29 September 2012
Where: Jena, Germany
www.dgmp-kongress.de

What: 24th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics
When: 6–9 November 2012
Where: Dublin, Ireland
www.ecco-org.eu/ENA

What: International Conference on Membrane Domains ('Dijon Domains 2012')
When: 27–30 November 2012
Where: Dijon, France
https://colloque.inra.fr/dijon_domains

What: World Congress of Clinical Lipidology
When: 6–9 December 2012
Where: Budapest, Hungary
www.clinical-lipidology.com

● See also the listings of FEBS Advanced Courses on pages 8–9 of this issue of *FEBS News* and at http://www.febs.org/index.php?id=649

● A group of PhD students from the Netherlands Cancer Institute have set up Biomeeter.com, a website listing conferences in all fields of biology

Would you like to announce your scientific event in *FEBS News*?
Events are also listed on the FEBS website.
Please email brief details to: elliss@febs.org