AUTUMN 2010

EMBO encounters

Newsletter of the European Molecular Biology Organization

From telomeres to empathy

Highlights from The EMBO Meeting 2010

BY CRISTINA JIMÉNEZ

Frans de Waal

Elizabeth Blackburn

In the early 1980s, after a meeting at the Gordon Research Conference, *Elizabeth Blackburn* and *Jack Szostak* discovered that telomeres include a specific DNA sequence. 29 years on, the fortuitous encounter resulted in a Nobel Prize for discovering the structure of molecular caps called telomeres and for working out how they protect chromosomes from degradation. This is only one example of how necessary meetings can be for the advancement of science. They provide a perfect setting for junior researchers to approach prospective supervisors – and vice versa. They can lead to new partnerships between research groups working in similar fields. And they also inspire open discussion and collaboration between institutions.

The EMBO Meeting, held in September in Barcelona, gathered more than 1,300 researchers from a broad scope of disciplines, extending from synthetic, developmental and evolutionary biologists to plant scientists and neuroscientists. "Postdocs and PhD students are the main beneficiaries of these meetings," pointed out *Luis Serrano*, who co-organized the meeting with *Denis Duboule*.

The meeting kicked off on Saturday 4 September with *Richard Losick* speaking about *Life & death of a microbial community* in front of a full auditorium at the Barcelona congress centre. The scientist explained the mechanisms that govern the assembly and disassembly of biofilms by using the example of the soil bacterium *Bacillus subtilis*.

Sunday started with *Elizabeth Blackburn* giving a keynote lecture about telomeres, telomerase and their implications for human disease such as cancer, diabetes and cardiovascular disease. The Nobel Laureate, who has spent her career studying telomeres and telomerase, reported that telomerase activity and telomere length are influenced by a variety of factors, including environmental exposure and oxidative stress. Reducing stress can help to lengthen telomeres and delay cellular aging, prolonging overall life.

From health matters, the programme changed at the plenary lectures to talk about the evolution of animal forms. *Detlev Arendt* explained how his team is using molecular fingerprints to identify homologous cell types over large evolutionary distances. Arendt's team has developed a novel technique, *wholemount in silico expression profiling*, to elucidate the evolutionary origin of neuron types in the marine worm *Platynereis dumerlii*.

On Monday, the Louis-Jeantet prize lectures took place with this year's winners giving two fantastic lectures. The cardiac electrophysiologist *Michel Haïssaguerre* talked about the causes of ventricular fibrillation, a condition in which there is uncoordinated contraction of the cardiac muscle of the ventricles in the heart, making them quiver rather than contract properly. Haïssaguerre explained how he is currently having great success in curing hundreds of patients every year from this sort of arrhythmia. *Austin Smith*, the other prize winner, gave a lecture on stem cells and the *Design principles of pluripotency*.

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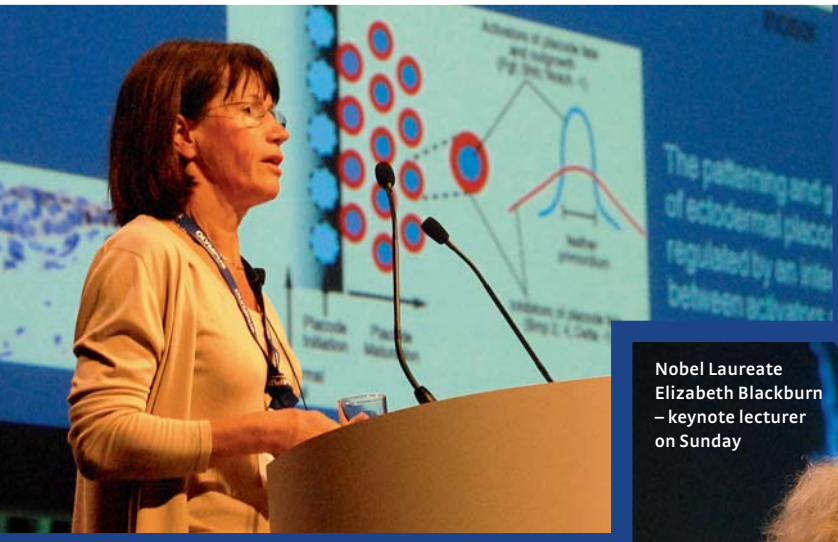
The primatologist *Frans de Waal* described in his special lecture on Sunday evening the role of empathy, fairness and cooperation in primates – a rather unusual topic at a molecular biology conference. Denis Duboule, *The EMBO Meeting* programme co-organizer, shed light: "We wanted to raise awareness among delegates about other fields of great interest in life sciences." "Lectures like the one by de Waal illustrate the immensity of things that remain to be discovered," added the Swiss scientist.

So, after the Palau de Congressos closed its gates and *The EMBO Meeting 2010* became history, one question remained unsolved: How many Nobel-winning chats may have taken place in this year's gathering?

HIGHLIGHTS



◀ Irma Thesleff presenting her plenary lecture on *Signalling in Development*

Lunch break in the gardens of the Palau de Congressos ▶

Nobel Laureate Elizabeth Blackburn – keynote lecturer on Sunday

Financial support from the Robert-Bosch-Stiftung helped provide onsite childcare services

Three certified bloggers reported daily from Barcelona ▼

▲ EMBO Director Maria Leptin at the award ceremony for EMBO Gold Medal winner Jason Chin

Scientific organizers Denis Duboule (above) and Luis Serrano (below)

▲ *Life Science Research in India* session attended by more than 80 scientists.

◀ Poster session

Detlev Arendt demonstrating about evolution of the central nervous system in animals

the EMBO meeting 2010

Demo at the Invitrogen exhibit attracted participants

Olympus camera awarded to a winner of the exhibitor quiz

EMBC summer meeting

Delegates from the 27 member states of the EMBC – the inter-governmental funding body of EMBO – met in Heidelberg on 28 June. The agenda included a report from EMBO Director *Maria Leptin* on the execution of the EMBC General Programme and a scientific presentation titled *Tying up loose (chromosome) ends: telomeres from cell biology to disease* by *David Shore,* Vice-Chair of the EMBO Council. During the meeting, delegates approved the 2009 EMBO|EMBC Annual Report. To download the annual report, please visit the EMBO News website: **www.embo.org/news.html**

Upcoming deadlines

1 December

EMBO
Plenary lectures

1 February

EMBO
Global Exchange Lecture Courses

15 February

EMBO
Long-Term Fellowships

1 March

New deadline!

EMBO
Courses & Workshops

The importance of being mobile

EMBO supports scientists on the move with a number of activities

An extensive travel itinerary often secures a further career step and increases the probability of receiving sought-after funds. Early-stage scientists in particular rarely stay in one country for more than four or five years. Carrying suitcases, packing boxes and hunting for new apartments is for many pre- and post-docs a Groundhog Day experience for real.

"Mobility is important," states *Anne Forde,* Career Adviser for Life Science Postdocs. "You get new ideas, see how labs work in different countries and enhance your chances in a job market that is becoming more and more competitive." *Martin Reddington* from the Human Frontier Science Programme draws the same conclusion: "Going abroad gives you a much broader perspective on the way science is done."

Yet there are still too few researchers who dare to jump the fence. An EU study from 2007 reveals that mobility of scientists is limited. The results are not really surprising as the price for being mobile is often high. Not only do the travellers sometimes have to cover the relocation costs, they repeatedly have to come to grips with new cultures and languages. Hopping countries also means making sacrifices in social and family lives.

Largest free website for career information

Fostering international mobility is a key goal for EMBO. In 2003, the organization introduced the Life Sciences Mobility Portal (LSMP) – a pool of useful information on funding, training and job opportunities in the life sciences throughout Europe. Recently revamped, LSMP currently lists more than 200 life sciences jobs and provides information on almost 2,000 funding schemes and events. Every month, around 8,000 visitors use the tool to check the newest job posts, get an update on upcoming courses and conferences and compare funding possibilities. Such a vast amount of information makes it one of the largest free resources on the web.
http://mobility.embo.org/

Paving the way home

According to Anne Forde, institutions such as the EU have made some progress on fostering researcher mobility in Europe over recent years. Yet there is still a long way to go. To become more competitive, European organizations have to do a better job in retaining their best brains – or attracting them back home. In particular, many scientists from Eastern Europe wish to continue their careers at home after spending some time in Western Europe. But returning to an under-funded and often ill-functioning research environment might prove a risky career choice. Four years ago, EMBO set up a funding programme that helps reduce these risks. Six countries participate in EMBO Installation Grants, a scheme to help scientists relocate and set up their research groups. So far, a total of 34 young group leaders have been selected to receive this grant, which provides 50,000 euro annually for a period of three to five years. But it is not only about money: "The grant is a great recognition of the relevance of our current work and the science we propose," according to 2009 grantee Lars Jansen, now at the Gulbenkian Institute for Science in Portugal.

Countries participating in EMBO Installation Grants

Croatia	Poland
Czech Republic	Portugal
Estonia	Turkey

Planning for the future

Missing out on pensions is another big issue for scientists on the move. To tackle this issue, EMBO introduced an internationally portable pension plan for the more than 400 active EMBO Fellows. Under the plan fellows receive matching funds from EMBO up to a maximum of 100 euro a month, on top of whatever they contribute. After only a couple of months, almost half of the entitled fellows signed up for the plan.

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As a direct consequence of his work molecular biologists can now answer a panoply of important questions about the molecular and cellular functions of proteins and protein post-translational modification with a previously unimagined molecular precision.

Kim Nasmyth,
Head of the Department of Biochemistry at the University of Oxford

EMBO Gold Medalist for 2010

Jason Chin wins prestigious research prize

Jason Chin giving a lecture at the award ceremony in Barcelona

Jason W. Chin from the Medical Research Council's Laboratory of Molecular Biology (MRC-LMB) was awarded the EMBO Gold Medal 2010 at *The EMBO Meeting* in Barcelona.

Chin received the award for his pioneering work on reprogramming the genetic code. His work allows designer amino acids to be encoded at specific, predetermined positions in proteins *in vivo*, enabling molecular biologists to control and elucidate the functions of proteins in cells with unprecedented precision.

Upon hearing that he had been awarded the medal for 2010 Jason said: "Given all the great science happening in Europe right now I am delighted to receive this award. I am very grateful to all my colleagues who have made the science possible."

Jason was an undergraduate at Oxford, obtained his PhD as a Fulbright scholar from Yale University, and was a Damon Runyon Fellow at the Scripps Research Institute in California. From July 2003 to early 2007 he was a tenure-track group leader at MRC-LMB. In 2005, Chin was selected to benefit from the highly competitive EMBO Young Investigator Programme. The Royal Society honoured him with the Francis Crick Prize Lecture in 2009. In addition to core funding from the MRC for his lab, his research benefits from an ERC Starting Grant (2008–2013) and an HFSP programme grant (2009–2012). ●

For more on his award winning research see the press release at:
www.embo.org/documents/press10/PR_gold_medal_2010.pdf

[Chin's work] *identifies him as an outstanding molecular biologist of his generation.*

Sir Paul Nurse,
designated President of The Royal Society

Jason is one of the most brilliant, original and imaginative scientists I know.

Venki Ramakrishnan,
2009 Nobel Prize winner

On being bold...

Happy birthday EMBO reports!

This year, *EMBO reports* celebrates its 10th anniversary. Since its inception in 2000, the journal has striven to be bold and different: offering short-format scientific reports, concise reviews and science & society essays and opinion. Its editorials in particular have gained popularity for offering a unique perspective on science and the world around it. To mark this milestone, the editors have selected the editorial highlights from the last ten years and published this very special collection online at: http://tinyurl.com/EMBOrep10.

A 10th anniversary is also a good reason to reflect, so *EMBOencounters* asked the former and current Senior Editors how the journal has evolved so far, and what are the plans for the decade to come.

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To prosper, we have to move with the times

Interview with Senior Editor Howy Jacobs

1. You've been steering EMBO reports for more than a year, what are the most rewarding aspects of this job?

I think it is the privilege of nurturing the journal into its second decade and beyond. To prosper, any academic journal has to move with the times and avoid going stale. We have already succeeded to a large degree in refocusing on the short-format report, which is the journal's trademark. For the next year or two our mission is to broaden our scientific content by attracting exciting, high-quality research reports on all of the 'applied' areas of molecular biology. These are surely the growth areas in life science research, including neuroscience, molecular evolution, medical biotechnology, molecular ecology and microbiology, plant sciences and cell physiology. Focusing more on these topics is also essential if we are to unify the scientific content of the journal with that of our 'front-end' material – comment and opinion on all aspects of the applications of molecular biology.

2. And the most challenging ones?

Clearly the most challenging part of editing any journal is to remain on good terms with one's colleagues whilst ensuring that the journal's academic standards are maintained and preferably enhanced. Everyone who has a paper turned down from any journal naturally feels aggrieved. My approach to being Senior Editor is to rely on the professionalism of the editorial team in Heidelberg (which is superb), whilst providing a shoulder to cry on for all those whose papers didn't make it into print in the journal!

3. What do you wish EMBO reports for its anniversary?

We should start to focus on where we wish to be by the time of our 15th and 20th anniversaries: namely to be recognized globally as the best short-format journal in the life sciences.

The cover of the first issue of *EMBO reports* published in July 2000 and the cover of the recent July 2010 issue. The cover image is often used to highlight an article in the issue.

July 2000: Cysts of *Drosophila* spermatocytes stained for centrosomes/gamma tubulin in green and DNA in blue. Photo courtesy *Salud Llamazares* and *Cayetano González*.

July 2010: Cover image inspired by the scientific report *Nucleosome occupancy landscape and dynamics at mouse recombination hotspots* by *Irina V. Getun, Zhen K. Wu, Ahmad M. Khalil & Philippe R.j. Bois*.

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EMBO reports editorial team

Barbara Pauly

Barb completed her PhD at the University of Munich and then undertook research into the role of the actin cytoskeleton in endocytosis at the University of California, Berkeley. She joined *EMBO reports* as editor in 2008, attracted by the opportunity to consider a broad range of scientific topics. During a research visit to Scotland, Barb developed a lasting fondness for Sticky Toffee Pudding, as served by the refectory at the University of Edinburgh.

Esther Schnapp

After her PhD at the Max Planck Institute in Dresden and post-doctoral research work in developmental biology in Milan, Esther joined the *EMBO reports* team as editor in 2008. Like all the editors, Esther also enjoys connecting with scientists at scientific meetings. In her free time she plays the piano and likes to take her young son swimming.

Nonia Pariente

Before joining *EMBO reports* in 2007, Nonia was a researcher in Madrid, Marburg and UCLA. She decided to leave the bench, where she focused on different aspects of virology, eager to look at the big picture of molecular biology. Since joining the journal, Nonia has edited both *Scientific Reports* and *Reviews*. She is also an enthusiastic cook, known by her friends for her hospitality and her authentic Gazpacho soup.

Holger Breithaupt

Holger earned his PhD at the University of Düsseldorf's Institute of Enzyme Technology and then decided to do something completely different. He studied science journalism at New York University and then worked as a freelance journalist before joining *EMBO reports* as News Editor in 2000. He is the last of the journal's original team and has developed *EMBO reports* strong reputation for *Science & Society*. He recently earned his black belt in Aikido, but assures us that only he was hurt in the process.

Samuel Caddick

After completing his PhD in Norwich, UK, Sam joined *EMBO reports* in 2007 because of the unique format of the journal and his interest in communicating science. He enjoys remaining close to the latest scientific advances, while also considering the ways in which science impacts society and vice versa. He now shares his time between all four sections of the journal and enjoys the mix of topics and content. Sam is an avid reader of science fiction and admits to being far too interested in new media and technology.

Other *EMBO reports* prime movers, no longer on board:

Christine M. Blaumueller: Head of Scientific Editing Service at the University of Iowa Carver College of Medicine, US

Sandra Caldeira: Project Manager at European Commission – JRC, Institute for Health and Consumer Protection in Ispra, Italy

Caroline Hadley: Journal Publisher with CSIRO Publishing in Melbourne, Australia

Marlies Otter: Manager of Scientific Projects at The Research Institute of the McGill University Health Centre in Montreal, Canada

Susan Owens: freelance science editor working from Ireland

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I wrote about topics I was passionate about

Interview with founder and former Senior Editor Frank Gannon

1. You were Senior Editor for nine years since you founded EMBO reports. How did you help the journal be what it is today?

In some ways, *EMBO reports* was defined by gaps in the market and the need to avoid any taint of competition with the very successful *The EMBO Journal*. We saw that short, focused papers were poorly catered for, that meeting reports were absent from all publications and that it was time to have variations on the theme of reviews, such as concepts or opposing perspectives. There was also a major need to have a reflective section on the interplay between science and society. The staff recruited then allowed the vague outline to be altered and turned into a successful journal. The extra spice we added was a frequent brain-storming meeting where wild ideas were permitted and freshness retained by our collective willingness to think outside the box.

2. Was there a topic that caused a particular controversy?

The GM topic. We deliberately sought the views of those opposed to the introduction of GM crops and had a strong article from the pro-GM side also. I wrote an editorial on the need to hear and understand the views of the two sides. Some readers thought it wrong. But we persisted on this "educational" role also for other topics such as stem cell research and formalized this with a synthesis article to give a balanced analysis of the arguments of both sides.

3. When was your favourite time to write your editorials and where did you get the ideas from?

I got my ideas from everyday events, chance meetings, reflections on the careers and lives of scientists, my views on policy and strategy and anything that touched on scientists, science, policy makers and society. I walked our dog every morning and used that time to focus on a topic and get some clarity. I nearly always wrote about topics I was passionate about, and maybe that meant they were sometimes strong opinions. I wrote whenever I had an hour (that was my time limit for the first draft), which was frequently on a flight in Europe with the deadline being the call to "switch off all electronic equipment".

Editor Picks – EMBO Publications

In each issue of *EMBOencounters*, the editors of *The EMBO Journal*, *EMBO reports*, *Molecular Systems Biology* and *EMBO Molecular Medicine* highlight particularly interesting papers.

THE EMBO JOURNAL

RESEARCH ARTICLES

Zic2 regulates the expression of Sert to modulate eye-specific refinement at the visual targets
García-Frigola C, Herrera E
doi:10.1038/emboj.2010.172

An in vivo RNAi assay identifies major genetic and cellular requirements for primary piRNA biogenesis in Drosophila
Olivieri E, Sykora M M, Sachidanandam R, Mechtler K, Brennecke J
doi:10.1038/emboj.2010.212

The miRNA machinery targets Mei-P26 and regulates Myc protein levels in the Drosophila wing
Herranz H, Hong X, Pérez L, Ferreira A, Olivieri D, Cohen S M, Milán M
doi:10.1038/emboj.2010.69

Oct-3/4 regulates stem cell identity and cell fate decisions by modulating Wnt/β-catenin signalling
Abu-Remaileh M, Gerson A, Farago M, Nathan G, Alkalay I, Rousso S Z, Gur M, Fainsod A, Bergman Y
doi:10.1038/emboj.2010.200)

Hedgehog controls neural stem cells through p53-independent regulation of Nanog
Po A, Ferretti E, Miele E, De Smaele E, Paganelli A, Canettieri G, Coni S, Di Marcotullio L, Biffoni M, Massimi L, Di Rocco C, Screpanti I, Gulino A
doi:10.1038/emboj.2010.131

Regulation of DNA-damage responses and cell-cycle progression by the chromatin remodelling factor CHD4
Polo SE, Kaidi A, Baskcomb L, Galanty Y, Jackson SP
doi:10.1038/emboj.2010.188

Neurotoxicity of Alzheimer's disease Aβ peptides is induced by small changes in the Aβ42 to Aβ40 ratio
Kuperstein I, Broersen K, Benilova I, Rozenski J, Jonckheere W, Debulpaep M, Vandersteen A, Segers-Nolten I, Van Der Werf K, Subramaniam V, Braeken D, Callewaert G, Bartic C, D'Hooge R, Martins I C, Rousseau F, Schymkowitz J, De Strooper B
doi:10.1038/emboj.2010.211

EMBO reports

SCIENTIFIC REPORTS

Dop functions as a depupylase in the prokaryotic ubiquitin-like modification pathway
Imkamp F, Striebel F, Sutter M, Özcelik D, Zimmermann N, Sander P, Weber-Ban E
doi:10.1038/embor.2010.119

A genetic system to assess in vivo the functions of histones and histone modifications in higher eukaryotes
Günesdogan U, Jäckle H & Herzig A
doi:10.1038/embor.2010.124

BRG1 helps RNA polymerase II to overcome a nucleosomal barrier during elongation, in vivo
Subtil-Rodríguez A, Reyes JC
doi:10.1038/embor.2010.131

REVIEWS

Mitochondrial shape changes: orchestrating cell pathophysiology
Campello S, Scorrano L
doi:10.1038/embor.2010.115

The ZEB/miR-200 feedback loop—a motor of cellular plasticity in development and cancer?
Brabletz S, Brabletz T
doi:10.1038/embor.2010.117

SCIENCE & SOCIETY

A voice for science in Europe
An interview with Helga Nowotny, President of the European Research Council
doi:10.1038/embor.2010.120

Sustainable digital infrastructure
Although databases and other online resources have become a central tool for biological research, their long-term support and maintenance is far from secure
Bastow R, Leonelli S
doi:10.1038/embor.2010.145

molecular systems biology

EDITORIAL

From bench to website
Lemberger T
doi:10.1038/msb.2010.72

RESEARCH ARTICLES

The phosphoproteome of toll-like receptor-activated macrophages
Weintz G, Olsen JV, Frühauf K, Niedzielska M, Amit I, Jantsch J, Mages J, Frech C, Dölken L, Mann M, Lang R
doi:10.1038/msb.2010.29

Evolutionary fates within a microbial population highlight an essential role for protein folding during natural selection
Peña MI, Davlieva M, Bennett MR, Olson JS, Shamoo Y
doi:10.1038/msb.2010.43

A diffusion-based neurite length-sensing mechanism involved in neuronal symmetry breaking
Toriyama M, Sakumura Y, Shimada T, Ishii S, Inagaki N
doi:10.1038/msb.2010.51

Cooperation and Hamilton's rule in a simple synthetic microbial system
Chuang JS, Rivoire O, Leibler S
doi:10.1038/msb.2010.57

Sequence signatures and mRNA concentration can explain two-thirds of protein abundance variation in a human cell line
Vogel C, de Sousa Abreu R, Ko D, Le SY, Shapiro BA, Burns SC, Sandhu D, Boutz DR, Marcotte EM, Penalva LO
doi:10.1038/msb.2010.59

EMBO Molecular Medicine

EDITORIAL

Transparency and accountability
Pulverer B
doi:10.1002/emmm.201000094

RESEARCH ARTICLES

Selective targeting of neuroblastoma tumour-initiating cells by compounds identified in stem cell-based small molecule screens
Smith KM, Datti A, Fujitani M, Grinshtein N, Zhang L, Morozova O, Blakely KM, Rotenberg SA, Hansford LM, Miller FD, Yeger H, Irwin MS, Moffat J, Marra MA, Baruchel S, Wrana JL, Kaplan DR
doi: 10.1002/emmm.201000093

Inhibition of transglutaminase 2 mitigates transcriptional dysregulation in models of Huntington disease
McConoughey SJ, Basso M, Niatsetskaya ZV, Sleiman SF, Smirnova NA, Langley BC, Mahishi L, Cooper AJ, Antonyak MA, Cerione RA, Li B, Starkov A, Chaturvedi RK, Beal MF, Coppola G, Geschwind DH, Ryu H, Xia L, Iismaa SE, Pallos J, Pasternack R, Hils M, Fan J, Raymond LA, Marsh JL, Thompson LM, Ratan RR
doi:10.1002/emmm.201000084

Prion protein and Abeta-related synaptic toxicity impairment
Calella AM, Farinelli M, Nuvolone M, Mirante O, Moos R, Falsig J, Mansuy IM, Aguzzi A
doi:10.1002/emmm.201000082

Rapid targeted mutational analysis of human tumours: a clinical platform to guide personalized cancer medicine
Dias-Santagata D, Akhavanfard S, David SS, Vernovsky K, Kuhlmann G, Boisvert SL, Stubbs H, McDermott U, Settleman J, Kwak EL, Clark JW, Isakoff SJ, Sequist LV, Engelman JA, Lynch TJ, Haber DA, Louis DN, Ellisen LW, Borger DR, Iafrate AJ
doi:10.1002/emmm.201000070

Next issue

The next ***EMBOencounters* issue – Winter 2010/2011** – will be dispatched in January 2011. You can send your contributions/news to: **communications@embo.org** at any time. The deadline for the Winter issue is **15 November 2010.**

Editor Yvonne Kaul
Contributing editors Suzanne Beveridge, Charlotte Otter
Proofreading Meryl Schneider
Print layout Uta Mackensen
Web version Sabine Rehberger-Schneider
E-newsletter Sandra Krahl, Katja Linssen

EMBO

EMBO publications special issues

Spatial organization of signalling

The EMBO Journal

The EMBO Journal 2010 Focus Issue highlights the importance of spatial organization in determining the outcome of cellular signalling events. Using examples from different organisms, this collection of reviews describes how organization on the sub-cellular, cellular and tissue levels plays an important role in cellular decision-making, communication, migration and behaviour. While this review series touches upon only a few of the biological processes where the spatial organization of signalling complexes is important, the selected examples at the same time nevertheless illustrate concepts of a universal nature.

Enjoy the reading at:
www.nature.com/emboj/focus/Spatial_Organisation_of_Signalling/index.html

Focus on Autophagy

EMBO reports

The explosion of autophagy research that has occurred during the past decade has underscored its importance in diverse physiological processes as well as in modulating disease. However, our understanding of the autophagic pathway and the mechanisms that target specific components for degradation is still in its infancy. The newest collection of *EMBO reports* articles entitled *Focus on Autophagy* reflects on the outstanding questions that will drive future research and provides new insights into some of the answers.

The articles are available online at:
www.nature.com/embor/focus/autophagy/index.html

All good things come in threes

Molecular Systems Biology

Signaling networks and *in vivo* systems biology

Metabolism: *in vivo*, *in silico*

Frontiers in systems biology: natural and experimental evolution

To highlight some of the emerging themes in systems biology and to indicate potential future directions of the field, *Molecular Systems Biology* created three new web focuses at its website entitled *Signaling networks and in vivo systems biology; Metabolism: in vivo, in silico;* and *Frontiers in systems biology: natural and experimental evolution.*

Open access to all articles at:
www.nature.com/msb/focus

Best on Cancer

EMBO Molecular Medicine

Despite its short existence, *EMBO Molecular Medicine* has already attracted several high-quality submissions in the field of cancer. Along with the monthly issues, a virtual issue on this topic has also been created. The *Virtual Issue on Cancer* will be updated, as new papers in the field appear. This way, readers can easily access and appreciate the *Reviews* and *Primary research articles* published on the subject.

Consult the papers at
www.embomolmed.org/view/o/VirtualIssues.html#VI_Cancer

EMBO Events 2010/2011

PRACTICAL COURSES

3D developmental imaging
PT–Oeiras,
1–9 October 2010

Advanced analysis and informatics of microarray data
UK–Hinxton
18–23 October 2010

Solution scattering from biological macromolecules
DE–Hamburg
25 October–1 November 2010

***Drosophila* techniques**
PT–Lisbon
11–18 March 2011

Methods in chemical biology
DE–Heidelberg
27 March–2 April 2011

Mass spectrometry and proteomics
DK–Odense
6–13 April 2011

Exploiting anomalous scattering in macromolecular structure determination
FR–Grenoble
14–18 June 2011

Bioinformatics and comparative genome analyses
FR–Paris
27 June–9 July 2011

Developmental neurobiology: from worms to mammals
UK–London
8–22 July 2011

Computational biology: mammalian genomes, cells and systems
IS–Reykjavik
6–13 August 2011

Studying protein–protein interactions by advanced light microscopy and spectroscopy
HU–Debrecen
16–22 August 2011

Advanced analysis and informatics of transcriptomics data
UK–Hinxton
23–29 October 2011

WORKSHOPS

From fetomaternal tolerance to immunomodulatory properties of placenta-derived cells in cell therapy
IT–Brescia
3–6 October 2010

RNA control of cell dynamics
IL–Kibbutz Ein Gedi
15–18 November 2010

Immunology and metabolism
FR–Marseille
13–15 January 2011

WORKSHOPS *(cont.)*

Function and structure of septins, filament-forming GTP-binding proteins
DE–St. Goar
6–9 March 2011

Cell biology of the neuron
GR–Heraklion
7–11 May 2011

50 Years of X inactivation research
UK–Oxford
20–24 July 2011

Mechanisms of nucleocytoplasmic trafficking
IL–Maale HaChamisha
6–11 November 2011

CONFERENCE SERIES (1st in a series)

Experimental approaches to evolution and ecology using yeast
DE–Heidelberg
29 September–3 October 2010

Towards a comprehensive understanding of endoplasmic reticulum functions
ES–Gerona
3–8 October 2010

Intracellular asymmetries of RNA activity: mechanisms and functions
IT–Barga
7–11 August 2011

CONFERENCE SERIES (2nd in a series)

From functional genomics to systems biology
DE–Heidelberg
13–16 November 2010

Spatial dynamics of intracellular signaling
CH–Engelberg
15–19 May 2011

Cancer proteomics: from molecular mechanisms to clinical implementation
IE–Dublin
20–23 June 2011

Meiosis
IT–Capaccio/Paestum
17–21 September 2011

CONFERENCE SERIES (3rd in a series)

Cell biology meets microbiology
PL–Krakow
9–14 October 2010

Stem cell biology
FR–Paris
6–8 April 2011

CONFERENCE SERIES (3rd in a series) *(cont.)*

Protein transport systems
IT–Santa Margherita di Pula,
16–20 April 2011

The biology of molecular chaperones
AT–Grundlsee
19–24 May 2011

Signaling in the immune system
IT–Pontignano (Siena)
10–14 September 2011

Nuclear receptors
ES–Sitges, Barcelona
16–20 September 2011

The assembly and function of neuronal circuits
CH–Ascona
25–30 September 2011

Nuclear structure and dynamics
FR–LIsle sur la Sorgue,
28 September–2 October 2011

ESF–EMBO SYMPOSIA

Emergent properties of the cytoskeleton: molecules to cells
ES–Sant Feliu de Guixols
3–8 October 2010

Functional neurobiology in minibrains: from flies to robots and back again
ES–Sant Feliu de Guixols
17–22 October 2010

Molecular perspectives on protein–protein interactions
ES–Sant Feliu de Guixols
14–19 November 2010

Molecular bioenergetics of cyanobacteria: from cell to community
ES–Sant Feliu de Guixols
24–29 April 2011

Biological surfaces and interfaces
ES–Sant Feliu de Guixols
26 June–1 July 2011

Glutathione and related thiols in living cells
ES–Sant Feliu de Guixols
4–9 September 2011

Epigenetics in context: from ecology to evolution
ES–Sant Feliu de Guixols
18–23 September 2011

Synthetic biology of antibiotic production
ES–Sant Feliu de Guixols
2–7 October 2011

EMBO/FEBS LECTURE COURSES

EMBO–FEBS Lecture Course
Molecular and cellular cognition
IT–Venice
14–19 October 2010

EMBO–FEBS Lecture Course
Biomembrane dynamics: from molecules to cells
FR–Cargese
21–29 June 2011

EMBO GLOBAL EXCHANGE LECTURE COURSES

Molecular and evolutionary genetics of malaria
IN–New Delhi
21 Nov – 4 December 2010

Molecular mechanism of protein transport
IN–Bangalore,
30 Nov – 8 December 2010

Bioinformatics and comparative genome analyses
TN–Tunis,
13–18 December 2010

HIV/AIDS
ZA–Stellenbosch,
30 January–5 February 2011

EMBO | EMBL SYMPOSIA

The Non-Coding Genome
DE–Heidelberg,
13–16 October 2010

Seeing is Believing – Imaging the Processes of Life
DE–Heidelberg,
17–20 March 2011

Cancer Genomics
DE–Heidelberg,
17–19 September 2011

Structure and Dynamics of Protein Networks
DE–Heidelberg,
13–15 October 2011

LABORATORY MANAGEMENT COURSES

Open to all independent group leaders:

DE–Leimen *(near Heidelberg)*
12–15 October 2010

UK–Ware *(Hertfordshire)*
2–5 November 2010

DE–Leimen *(near Heidelberg)*
15–18 November 2010

For postdocs:

DE–Leimen *(near Heidelberg)*
5–7 October 2010

DE–Leimen *(near Heidelberg)*
29 Nov – 1 December 2010

OTHER EMBO EVENTS

11th EMBL/EMBO Science & Society Conference
The difference between the sexes – from biology to behaviour
DE–Heidelberg
5–6 November 2010

The EMBO Meeting 2011 – *Advancing the life sciences*
AT–Vienna
10–13 September 2011

For more information and a list of all courses, workshops, conferences and symposia please go to:

www.embo.org/events/calendar.html

Bi–annual application deadlines for organizers to apply for EMBO funds:

1 March ***New deadline!***

EMBO Courses & Workshops

1 August

EMBO Courses & Workshops

EMBO Young Investigators get together

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Almost fifty young group leaders learnt more about each other's lab activities at the annual EMBO Young Investigator meeting in Heidelberg on 10–12 May. This year's proceedings included a *Meet the Editor* session where EMBO editors and the attendees discussed the best practices of scientific publishing and talked about how to better meet expectations of both sides: the authors of the papers as well as the journal editors.

EMBO Fellows reunion

At the end of June, Heidelberg greeted EMBO Fellows who received their fellowships in 2007. Fifty-four fellows accepted the invitation to spend three days discussing the latest science and exchanging ideas. The scientific part of the reunion was rounded off with a communication workshop moderated by press and TV journalists, and a relaxing social programme that included a boat tour down the Neckar river and a party with a live band.

EMBO Poster Prize winners

Congratulations to the following winners of the competitions held at recent EMBO-sponsored events:

Leonardo Almeida-Souza
Department of Molecular Genetics – VIB, Antwerpen, Belgium
HSPB1 mutations causing Charcot-Marie-Tooth neuropathy disturb microtubule dynamics through enhanced interaction to tubulin
Presented at the EMBO/FEBS Lecture Course, *The cytoskeleton in development and pathology,* SE–Djurhamn, 19–24 June 2010

Hugo Bretes *and* **Benoit Palancade**
Institut Jacques Monod, Université Paris Diderot, Paris, France
Investigating mRNA quality control at nuclear pores
Presented at the EMBO Workshop, *RNA quality control,* AT–Vienna, 10–13 May 2010

Erika Brunet
Laboratoire *Dynamique et Régulation des génomes,* INSERM, Paris, France
Creating physiologically relevant translocations at endogenous loci: the model of Ewing of sarcoma
Presented at the EMBO Conference Series, *Recombination and connections to SUMO and ubiquitin modifications,* IT–Castelvecchio Pascoli (Lucca), 17–21 May 2010

Walter de Back
Center for High Performance Computing, Technische Universität Dresden, Germany
Middle-out Modeling of Multiscale Morphodynamics
Presented at the EMBO Workshop, *Systems biology of development,* CH–Ascona, 16–19 August 2010

Christian Grove
California Institute of Technology, Arcadia, CA, USA
***The Virtual Worm: 3D Renderings of* Caenorhabditis elegans**
Presented at the EMBO Workshop, *Visualizing biological data (VizBi),* DE–Heidelberg, 3–5 March 2010

Kuo-Shun Hsu
Cancer Research UK, London, UK
Molecular dissection of the roles for Ndc80 in spindle microtubule dynamics
Presented at the EMBO Workshop, *Chromosome segregation and aneuploidy,* UK–Edinburgh, 19–23 June 2010

Jodie Madden
Imperial College London, UK
Important Regulatory Mechanisms in the Respiratory Tract during Ongoing and Resolved Influenza Infection
Presented at the EMBO Workshop, *Viruses and innate immunity,* IE–Dublin, 5–7 May 2010

Ashish Maurya
National University of Singapore
Shh antagonizes Smad activity to specify cell fates in the teleost myotome
Presented at the EMBO Workshop, *Hedgehog signaling: from developmental biology to anti-cancer drugs,* FR–St. Jean Cap Ferrat, 27–31 March 2010

Szilard Szikora
University of Szeged, Szeged, Hungary
Wiggling nuclei reveal novel nuclear positioning mechanism
Presented at the EMBO Conference Series, *Microtubules: structure, regulation and functions,* DE–Heidelberg, 2–5 June 2010

More than just pretty pictures

EMBO Member Joel L. Sussman makes students love structural biology

Used for teaching biology in high-school classrooms around the world; applied as an interactive three-dimensional article supplement in a journal of chemistry; and, most recently, elected as the best web-based multimedia tool by *The Scientist*. *Proteopedia* (www.proteopedia.org) is the first free, collaborative three-dimensional online encyclopedia of molecules – and yet another example of how scientists bring science to the public.

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The students developed their own model of protein structure using Proteopedia

Joel among high-school students in South Bronx, New York

©proteopedia.org

"This website gives students and other users a chance to view protein structures, which turn out to be extraordinarily appealing to them," explains project initiator and EMBO Member *Joel L. Sussman* from the Weizmann Institute of Science in Israel, who co-developed the tool with *Jaime Prilusky & Eran Hodis,* also at the Weizmann.

The visual effects are amazing: Upon clicking on one of the green links attached to a page in *Proteopedia,* a multicoloured picture appears which can then be rotated by simply pulling the computer mouse – as if the user were holding the model in his own hands. "But *Proteopedia* is more than just pretty pictures. It helps identify the features of molecules," explains Sussman. Even senior researchers appreciate how their own research findings are visualized on the website.

Earlier this year, his team visited a high-school classroom at the Hostos-Lincoln Academy in South Bronx, New York. "The students were crazy about it," recalls Sussman. Their teacher also found it useful: "My students learnt how to load a programme database file, illustrate it, rotate or zoom the structure and have it linked to the text they drafted," said *Allison Granberry.* "Their enthusiasm grew, one idea seemed to generate another."

Since the website's launch in 2008, hundreds of people have edited scientific articles on *Proteopedia;* almost four hundred papers on proteins and other biomolecules have been created. Contributors range from well-known structural biologists to high-school teachers and students. New submissions undergo a three-stage verification until they can go live and each author automatically gets both credit and responsibility by having their name mentioned on each page they edit.

For Sussman, a dream has come true. "I have done a lot of basic research, now it is time to go out to a much larger community," explains the structural biologist. Now that the project has gained ground, he wants to set sail for new shores. Targeting developing countries is just one of his plans. To make a good start, he had a number of pages in *Proteopedia* translated into Arabic, Russian, Chinese and other major languages of the world.

EMBO congratulates!

A number of EMBO Members joined the ranks of the Royal Society in the UK and the US National Academy of Sciences this year → →

New Royal Society fellows

- **Andrea Hilary Brand**
- **Ronald Thomas Hay**
- **Angus Iain Lamond**
- **Wolf Reik**
- **Peter William**
- **Jack Rigby**
- **Alan Edward Smith**
- **Pascale Cossart** (FOREIGN MEMBER)
- **Edmond Henri Fischer** (FOREIGN MEMBER)
- **Detlef Weigel** (FOREIGN MEMBER)
- **Kurt Wüthrich** (FOREIGN MEMBER)

New Foreign Associates of the National Academy of Sciences

- **Wolfgang P. Baumeister**
- **Marc Feldmann**
- **Eva Kondorosi**
- **Paul Schulze-Lefert**

Epigenetics joins research focus as FMI turns 40

With EMBO Member Susan Gasser at its helm, FMI springboards research careers

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FMI Director Susan Gasser surrounded by Nobel Laureates Susumu Tonegawa, Ed Fischer and Werner Arber (left to right) at the FMI 40th anniversary symposium

The Friedrich Miescher Institute for Biomedical Research (FMI), part of the Novartis Research Foundation, celebrates its 40th anniversary in 2010 with a series of high-profile events. Based in Basel since 1970, the FMI has become a European centre of competence for innovative biomedical research.

Founded by two Swiss pharmaceutical companies, *Ciba AG* and *J.R. Geigy AG,* the research center has two aims: to pursue basic research at a very high level, and to facilitate mutual exchange between biologists and the pharmaceutical industry. The FMI now works closely with the University of Basel and provides opportunities for young scientists to take part in scientific research, serving as a springboard for them to follow careers in the pharmaceutical industry or in academia.

The FMI founding director was *Hubert Bloch,* former head of Ciba pharmaceutical research department and professor of microbiology and immunology at the University of Basel. Bloch defined the FMI sphere of activities as tumour biology, neurobiology and hormone regulation. These now include an interest in epigenetics, which encompasses questions of genomic stability and the regulation of cell differentiation. The FMI has particular strength in the hot new field of microRNAs. Eight teams map neuronal networks (the genetic basis of cell type specificity) and the physiology of network firing.

Directed by EMBO Member *Susan Gasser,* whose own epigenetics group focuses on how nuclear organization impinges on mechanisms of repair, the FMI hosts 320 scientists from more 40 countries. Their research is geared towards the biomedical implications of their discoveries and Novartis has first right of refusal for any patents that FMI might file. In addition, the FMI develops state-of-the-art technologies for use in research, such as high-throughput methods for mapping epigenetic marks, super-resolution microscopy, structure determination of "molecular machines" or macromolecular complexes, and viral-mediated gene delivery to the retina.

BY SANDRA ZIEGLER HANDSCHIN
Head of Communications at FMI

The anniversary event in September was attended by numerous researchers from around the world

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Made in Austria

EMBO Members and Young Investigator launch programmes for young researchers in Vienna

This year, leading research labs in Vienna teamed up to discover "the best & the brightest" of the new generation of researchers. The first ever Vienna Biocenter Summer School attracted 250 applicants; 22 undergraduates from 13 countries eventually qualified for the intensive ten-week programme. Three EMBO Members – *Barry Dickson* and *Meinrad Busslinger* from the Institute of Molecular Pathology and *Josef Penninger* from the Institute of Molecular Biotechnology of the Austrian Academy of Sciences – were among the hosts of the international group of students. The experience involved an independent research project, a lecture series and culminated in a scientific symposium where the students presented their work. Four of them received prizes for the best presentations.

Only a few weeks later, another project supporting young life scientists was launched on the other side of the river Danube. EMBO Young Investigator *Christian Schlötterer* coordinated the new PhD programme on Population Genetics based at the University of Veterinary Medicine. Five students made it for the initial class that kicked off this September with an introductory course followed by workshops, journal clubs and seminar series with international speakers. Both experimentalists and theoreticians with interest in population genetics are giving the selected students insights into population genetics, biomathematics, and bioinformatics, encouraging them to think outside the box. For next year's selection, students are invited to apply in early 2011 at **www.popgen-vienna.at**

All smiles: attendees of the Vienna Biocenter Summer School

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A GOOD READ – PUBLICATIONS FROM THE EMBO COMMUNITY

Articles

Dicer-independent primal RNAs trigger RNAi and heterochromatin formation
Mario Halic (EMBO Fellow) *et al.*
Cell **140(4),** 504–516
19 February 2010

Mitochondrial disulfide bond formation is driven by intersubunit electron transfer in Erv1 and proofread by Glutathione
Jan Riemer (EMBO Fellow) *et al.*
Molecular Cell **37(4),** 516–528
26 February 2010

Light-induced structural changes in a photosynthetic reaction center caught by Laue diffraction
Gergely Katona (EMBO Fellow) *et al.*
Science **328,** 630–633
30 April 2010

Natural allelic variation underlying a major fitness trade-off in *Arabidopsis thaliana*
Detlef Weigel (EMBO Member), Sureshkumar Balasubramanian (EMBO Fellow) *et al.*
Nature **465,** 632–636
3 June 2010

Glucocorticoids suppress bone formation by attenuating osteoblast differentiation via the monomeric glucocorticoid receptor
Jan Tuckermann (EMBO Fellow) *et al.*
Cell Metabolism **11,** 517–531
9 June 2010

Hormonal control of the shoot stem cell niche
Jan U. Lohmann (EMBO Young Investigator) *et al.*
Nature **465,** 1089–1092
24 June 2010

Myc-nick: A cytoplasmic cleavage product of Myc that promotes α-tubulin acetylation and cell differentiation
Maralice Conacci-Sorrell (EMBO Fellow) *et al.*
Cell **142(3),** 480–493
6 August 2010

Neurological disease mutations compromise a C-terminal ion pathway in the Na1/K1-ATPase
Hanne Poulsen (EMBO Fellow) *et al.*
Nature **467,** 99–102
15 August 2010

Functional roles for noise in genetic circuits
Avigdor Eldar (EMBO Fellow) *et al.*
Nature **467,** 167–173
9 September 2010

Books

Sydney Brenner: A biography
By Errol C. Friedberg
Cold Spring Harbor Laboratory Press
ISBN 978-087969947-5
2010

How Science Works: Evolution
John Ellis (EMBO Member)
Springer Netherlands
ISBN 9789048131822
2010

TRANSITIONS

EMBO Members

Former EMBO Director **Frank Gannon,** now Director-General of the Science Foundation of Ireland, has been appointed Chief Executive Officer of the Queensland Institute of Medial Research in Australia.

EMBO Member **Françoise Barré-Sinoussi** from the Institute Pasteur in Paris, France, will become the next President-Elect of the International AIDS Society (AIS) in 2012. Professor Barré-Sinoussi is the 2008 Nobel Laureate of Medicine for her contributions to the discovery of the AIDS virus.

EMBO Member **Nektarios Tavernarakis** has been elected Excellence Professor at the Medical School of the University of Crete.

Howard Riezman from the University of Geneva, Switzerland, has been awarded directorship of a program grant from the Swiss Federal Department of the Interior to create a National Center of Competence in Research (NCCR) in Chemical Biology

EVENTS

EMBO Members

EMBO Member **Maurizio Brunori** is main organizer of the symposium **Protein Structure and Dynamics** to be held at the Accademia Nazionale dei Lincei in Rome, Italy, from 1–3 December 2010.
More information at:
http://arianna.bio.uniroma1.it/folding/

EMBO Fellows

EMBO Fellow **Alessandra Cambi** is co-organizing the symposium **Lipid and protein nanoislands: Dynamics, organization and signaling** to take place in Nijmegen, The Netherlands, on 27 January 2011. The symposium aims to promote interaction between Biophysics and Immunology.
Registration deadline is 15 December 2010.
www.immunanomap.eu

AWARDS OF EXCELLENCE

EMBO Members

Tartufari Prize for Biology
Accademia Nazionale dei Lincei
Anna Tramontano won the 2010 Prof. Luigi Tartufari Prize of the Accademia dei Lincei – the Italian National Academy. The award, founded in 2007, includes a monetary prize of 25,000 euro.

Ludwig-Wittgenstein Prize
Österreichische Forschungsgemeinschaft (Austrian Research Association)
Barbara Hohn from the Friedrich-Miescher-Institute for Biomedical Research in Basel, Switzerland, is this year's Wittgenstein Prize winner. The annual prize, accompanied by a stipend of 1.4 million euro, is the highest scientific recognition in Austria.

Advanced Investigator Grant
European Research Council
Liam Dolan from the University of Oxford, UK, has been awarded the prestigious ERC Advanced Investigator Grant. The scheme is highly competitive and allows established leaders in any field of science, engineering and scholarship to pursue frontier research of their choice.

Royal Medal
Royal Society of Chemistry
Azim Surani, the Marshall-Walton Professor of Physiology at the University of Cambridge, UK, has received this medal for his pivotal contributions to the understanding of early mammalian development. The Royal Medals are awarded annually by the Queen upon a recommendation of the Royal Society.

A. De Leeuw-Damry-Bourlart Prize for Exact Sciences
Fund for Scientific Research – Flanders (FWO)
Every five years, FWO honours five internationally recognized Flemish scientists for their groundbreaking contributions to their field of research. This year, **Dirk Inzé,** Director of the Department of Plant Systems Biology at Ghent University, Belgium, has won this award for his lifetime achievement.

GlaxoSmithKline International Member of the Year Award
American Society for Microbiology
Hans Wolf-Watz from the Umeå University, Sweden, has been selected the 2010 laureate of the GlaxoSmithKline International Member of the Year Award. Wolf-Watz is honoured for his seminal work in the elucidation of the pathogenesis of *Yersinia,* as well as his international collaborations, which have resulted in fundamental progress in the field.

Croonian Lecture Prize
The Royal Society
John Ellis from the University of Warwick, UK, was awarded the 2011 Croonian Lecture Prize worth £1,000 for his "pioneering contributions to biochemistry and molecular biology, also plant sciences". The Croonian Lecture is the Society's premier lecture in the biological sciences. It was given in May 2010.

Otto-Warburg Medal
German Society for Biochemistry and Molecular Biology (GBM)
Ari Helenius from the Institute of Biochemistry in Zurich, Switzerland, has received this medal for discovering the basic principles of biological quality control for the folding and assembly of protein molecules. Qiagen, a provider of sample and assay technologies, sponsors the Otto-Warburg Medal with a grant of 25,000 euro.

EMBO Young Investigators

Colworth Medal
UK Biochemical Society
Sarah Teichmann has won the 2011 Colworth Medal, awarded annually to a biochemist under the age of 35 for outstanding research achievement. Sarah is the first computational biologist and the second woman to win the medal in its almost fifty-year history. The prize was made in recognition of her groundbreaking work on elucidating principles of the evolution and dynamics of transcriptional regulatory networks and protein complexes.
Sarah was also the winner of the **Science &Technology Women of the Future prize** sponsored by Shell.

EMBO Young Investigators

Körber Award 2010
Körber Foundation
Jiří Friml from Ghent University, Belgium, is this year's laureate of the Körber European Science Award, worth 750,000 euro. The Körber Foundation annually awards European scientists who are pursuing particularly innovative research projects. Jiří gets the prize for his research into the development and adaptability of plants.

Molecular BioSystems Award
Royal Society of Chemistry
Madan Babu from the Laboratory of Molecular Biology at the University of Cambridge, UK, has been selected to deliver the first Royal Society of Chemistry's Molecular BioSystems Award Lecture at the 2011 American Chemical Society's Spring Meeting. Madan has received this honour for his contribution to the field of Systems Biology.
He has also been awarded the **2011 Balfour Lecture** by the Genetics Society for his contributions to the areas of Computational Biology and Genetics.

EMBO Fellows

Indian National Young Scientist Award
Indian National Science Academy (INSA)
Saravanan Matheshwaran from the Cancer Research UK London Research Institute, has been awarded the Indian National Young Scientist Award for 2010. He received this award for his research on the role of metal ions in sequence specificity that resulted in the engineering of site-specific restriction endonucleases. The scheme distinguishes "young scientists of extraordinary promise and creativity" who have made notable research contributions in science and technology.

Turning the spotlight on chilhood cancer

EMBO Member Beverly E Griffin shoots a film in Malawi

Camera team at work in a Malawian village

Burkitt's Lymphoma is the most common type of tumour in children in Sub-Saharan Africa and it still affects about 200,000 persons a year – mainly children between five and ten. This white blood cell tumour has been named after the British surgeon *Denis Burkitt,* who was the first to describe the disease.

To raise awareness, EMBO Member *Beverly E Griffin* from Imperial College in London, UK, embarked on a rather unusual project. Together with the head of *Cipla,* a generic drug company in Mumbai, *Stephanie Hampton,* who lost her only son to the disease, and the company *Angry Man Pictures,* she produced the 48-minute documentary *Surviving Burkitt's* this year. The film followed Stephanie across Malawi, where the incidence is unusually high, to interview academics and doctors. Then, the camera team accompanied the families of eleven-year-old *Grace* and two-year-old *Ganizani* who both suffer from large Burkitt's tumours in their eyes. With most of the money raised by early Summer, the filming was completed in August and is currently in post production.

"After writing many 'learned articles', which probably reach only a few individuals and provide some knowledge but little support, I am doing something else to reach a broader audience," commented Beverly on her social commitment. The film will be widely distributed as a vehicle for teaching medical students in both the developed and the developing world. By doing this, she wants to "wake people up in other parts of the world" and encourage them to lend support. "Our main goal is to show the film to villagers and the personnel at all the regional medical centres, so they can recognise the symptoms earlier and get the patients to hospital quicker," said *Alex Tweddle,* film production company director. Later, with the spotlight on the unsolved problem, Beverly would like to return to the bench and start developing new therapies for the affected African children.

For more details go to Surviving Burkitt's page at www.angrymanpictures.co.uk

Family drama induced at the bench

EMBO Member Regine Hengge puts theatre pieces on her students' curriculum

After the tragic death of his wife and his failure to raise his young son, Salter decides to try again with a clone of his son. But the doctor in charge secretly produces twenty clones who populate the world not knowing of one another. Some of them are happy and fulfilled, others struggle for their existence. Until one day, after a heated discussion, the aged father divulges his secret and the family drama is set into motion.

This is the rough outline of the play *A Number* by the English playwright *Caryl Churchill,* a story used by EMBO Member *Regine Hengge* from the Freie Universität Berlin to discuss social and ethical aspects of scientific research with biology graduate students. This play appeared just perfect for discussing questions of human identity and 'enhancement' as well as the nature versus nurture issue.

Together with *Günther Grosser,* the director of the English Theater Berlin, Regine set up the transdisciplinary project Science&Theatre. During the three-stage workshop, the students attend a seminar series first and then participate in preparing the actual play together with the theatre people. The project culminates in the performance at the English Theater Berlin, which on some evenings is followed by discussions with the audience.

Premiered last June, *A Number* was their first co-production – and a clear success. According to Regine, both students and the theatre people tremendously benefited from the joint enterprise. Additional performances will be staged on 4–8 November; and on 7 November the show will be followed by a public lecture by EMBO Associate Member *Jonathan Beckwith,* who was the first to clone a gene in 1969.

Further information and tickets: www.etberlin.de

Regine Hengge and Günther Grosser

… a few questions to Regine Hengge, the project founder

Regine, where does your interest in theatre arise from?

Coming from a family of artists rather than scientists, I have always been interested in arts. And ever since I met Günther Grosser, we have had long discussions about theatre.

What triggered the idea for the project?

At some point we realized that many good contemporary plays in the English-speaking deal with science. Günther decided to put one or several on stage, and it was clear that my part would be to provide the scientific background to the theatre people. Moreover, I wanted to involve biology students for whom this would be an exercise in science communication. In fact, I always had wanted to develop a seminar on social, ethical and political aspects of science for young scientists. This is how the idea of combining all this was born. A Number was our test run for this new concept, and it worked out exceedingly well!

Early registration
15 May

Abstract submissions
22 May

Late registration
21 August

the EMBO meeting

advancing the life sciences

2011

VIENNA

10–13 September

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Disease
Cancer

Organizers

Pascale **Cossart**
Barry **Dickson**
Jane **Langdale**

Neuroscience
Immunity
Development

Plant biology
Pathogens
Microbiology

Keynote lectures

Richard **Axel**
Susan **Lindquist**
Louis-Jeantet Prize
for Medicine winners

Plenary lectures

David **Anderson**
Cori **Bargmann**
Bonnie **Bassler**
Jeffrey **Bennetzen**
Evan **Eichler**
Florian **Engert**
Brett **Finlay**
Edvard **Moser**
Paul **Rainey**
Paul **Schulze-Lefert**
Lucy **Shapiro**
Michael **Stratton**

21

21 concurrent sessions
covering the entire range of the molecular life sciences

see website

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