



Dear Reader,

Many EMBO programmes foster talented scientists throughout their careers. EMBO Fellowships – around since our beginning in the 1960s – support the postdoctoral research of early career scientists. With 200 or more long-term fellowships granted each year, at any point in time at least 400 postdocs are benefiting from the funding, support and international exchange offered by the programme. But with only about one in six of the applications selected following rigorous evaluation, it's clear that if only more funds were available, more postdocs could benefit.

EMBO applied last year to a new initiative from the European Commission (EC) that offers co-funding of national and international fellowship programmes. In evaluating our request, the EC praised the transparent evaluation procedures of EMBO Fellowships, the client friendliness and attention to career development and gender issues. Plans to establish a private pension plan for EMBO Fellows were also commended by the commission.

Our application was successful. As a result, EMBO Fellowships will receive the EC co-funding, allowing around 35% more long-term fellowships to be offered as of the next application rounds.

It's a pleasure for me to introduce this issue of *EMBOencounters* as EMBO Deputy Director – a role I share with *Gerlind Wallon*. In addition to my duties as EMBO Fellowships Programme Manager, I coordinate relations with EMBC Member States and European organizations, such as the EC.

The cover story of this issue of *EMBOencounters* continues the series of articles highlighting topics for the 10th EMBO/EMBL Science & Society Conference. This time, *Yvonne Kaul* examines the perspectives of small farmers in countries where GM crops may offer opportunity...or not.

You'll also find updates on EMBO news, including the exciting launch of *EMBO Molecular Medicine*, as well as news from your colleagues throughout our community.

Jan Taplick



Farmers from the city of Yavatmal in the central Indian state of Maharashtra on a field planted with BT cotton

we present some opinions from farmers around the world. What are the feelings in Asian and South American countries regarding the risks and the benefits of GM food? Leading scientists, politicians and journalists will discuss this question and other related issues when they meet in November at the 10th EMBO/EMBL Science & Society Conference in Heidelberg. The topic "Food, sustainability and plant science: a global challenge" marks the tenth anniversary of this multidisciplinary conference.

Polasani Sreenivasa Reddy owns twenty acres of land in the southern Indian state of Andhra Pradesh. Nearly half of his farm is planted with cotton. A few years ago, *Polasani Sreenivasa* tested GM cotton for the first time and has been sowing it ever since. "It is far better than the one we grew before," he said. "The ripening is shorter, the yield is better and the cotton picking is easier." *Polasani Sreenivasa* worked as a state government officer until his retirement; he now makes a living from farming, supporting his wife and four children. He is also a member of the Federation of Farmers' Associations (FFA) based in Hyderabad in the state of Andhra Pradesh. The organization embraces nearly thirty million smallholders throughout southern India, as well as some central states such as Gujarat, Maharashtra and Haryana.

Endless rows of white cotton bushes cover the state of Andhra Pradesh. Most of

Farmers worldwide divided over GM crops

"I don't think we can possibly solve the world's food crisis without modern biotechnology, including genetic engineering methods," says Sir David King, the former UK government chief scientist and now Director of the Smith School of Enterprise and the Environment. Countries like India, which recorded the fastest growth in genetically modified (GM) crop adoption worldwide after its introduction in 2002, seem to share his opinion. Meanwhile, farmers in other regions of Asia remain suspicious of any initiatives coming from Europe or the US. The issue, it seems, is as divisive as ever.

The last issue of *EMBOencounters* addressed the views of Western researchers working with genetically modified crops and modern plant biotechnology. This time,

they are genetically modified. *Bacillus thuringiensis* (BT) cotton was introduced to India in 2002, and there are now over eight million hectares grown there. Eighty percent of the rural population grows the crop and, in 2007, India surpassed the US to become the second



biggest producer of cotton in the world. "Indian farmers do not shy away from implementing modern technologies," stated FFA President *Chengal Reddy* (pictured

left). With a population of almost 1.1 billion people and much of its farmland stagnating, India urgently needs to find ways to increase crop yields on the land that is available. The demand for food and plant-derived goods is on the rise; not only from the growing population, but also from a populace that expects a better standard of living. Fuel is another difficult issue: Because of the petroleum crisis, India

Farmers worldwide divided over GM crops

Continued from first page



Rice breeding requires a good eye. Like this young lady, many farmers in the Philippines prefer conventional rice to GM crops

© MASIPAG | Philippines

can no longer depend on other countries for oil. "We need to produce at least part of the fuels through agriculture," Reddy commented.

"The only reason why India is currently managing to feed their population is precisely because they include modern biotechnology in their agricultural process," agreed Sir *David King*. Research into the genetic engineering of crops is also finding favour with the governments of many other countries. China has been investing hundreds of millions of dollars in transgenic crop research, as the government in Beijing needs to increase grain production by about 25 percent by 2020. So far, though, China has only approved a handful of GM food crops – such as papaya, tomato and bell pepper – for commercial planting. However, most of China's cotton is already transgenic; and rice, wheat, maize, soybeans and livestock are in the pipeline. But people in China have proven to be cautious adopters of this technology. The majority of the consumers, especially those from metropolitan cities like Shanghai or Beijing, still prefer conventionally manufactured rice, according to a Greenpeace study cited in *Time* in February 2008.

In Reddy's view, the biggest obstacles to progress in India are a number of anti-GM European NGOs. "We are not really happy with the Europeans," he commented. "They seem to apply double standards: totally oppose GM food on the one hand, but import and consume beef from countries that are known to widely employ genetic engineering such as Argentina or Brazil." Moreover, millions of Europeans go to the US each year and consume GM foods there without complaining. For Reddy, European objections are not genuine.

undergoing field trials, the issue of plant biotechnology is controversial. Some regard the yellow grain as a blessing, particularly for poorer rice farmers, who will receive the seeds without paying licence fees. Others are sceptical: "Golden Rice is a Trojan horse to push genetically modified crops onto our people," commented *Chito Medina* from the organization Masipag with headquarters in Los Baños in the Philippine province of Laguna. The organization represents around 35 thousand farmers and offers them more than a thousand conventionally bred rice varieties. Medina is the national coordinator of Masipag, whose objective is to educate smallholders about environmental issues: "Green and yellow vitamin A-rich vegetables are easily available in the backyards of our farms," he claimed. "But, because vitamin A is fat-soluble, the much bigger problem in the Philippines is its bio-availability." Masipag strongly opposes genetic engineering on the grounds that GM crops usually only address one or two problems and do not take complex environmental situations into account.

Luis Herrera Estrella, from the National Polytechnic Institute in Irapuato, Mexico, is more optimistic: "Mexican farmers are eager to get GM technology because they see the benefits in the US and in countries like Argentina and Brazil," he said. The Mexican government has already approved a number of transgenic products for human consumption, such as maize, soybean and tomatoes, but farmers are not yet allowed to produce them, as Mexico is considered a centre of genetic diversity for many important crops. However bio-safety legislation is on the horizon for Mexico and,

He also knows of some active environmental groups in his own country, which tend to have headquarters in big cities like Delhi, Madras or Mumbai, "but do not come to our villages and do not represent the farmers," he noted critically.

In the Philippines, where Golden Rice, the flagship of GM foods, is currently

in light of steadily increasing food prices, it seems bound to come sooner rather than later. Mexico already imports around eight million tons of corn from the US and Argentina to feed around one third of its national demand. "If the US and Argentina dedicate more farmland to biofuel production in the future, it is going to be a big problem for us," Herrera, one of the speakers at the November Science & Society Conference, commented.

After food prices exploded in Latin American and African countries last summer, softening resistance to GM crops to a degree, the global economic crisis may now also weaken popular opposition to modern plant biotechnology. According to a World Bank study published in March 2009, the economic crisis hit developing countries with particular vehemence. It states that in 94 out of 116 countries, economic growth will shrink this year. 20 million migrant workers in China and more than two million Indians have already lost their jobs, worsening the living conditions of the rural population. After years of improvement, the number of undernourished people is growing again. Estimates from the Food and Agriculture Organization (FAO) from January 2009 suggest that 963 million people in poor countries are chronically or acutely hungry – an increase of 109 million from 2004.

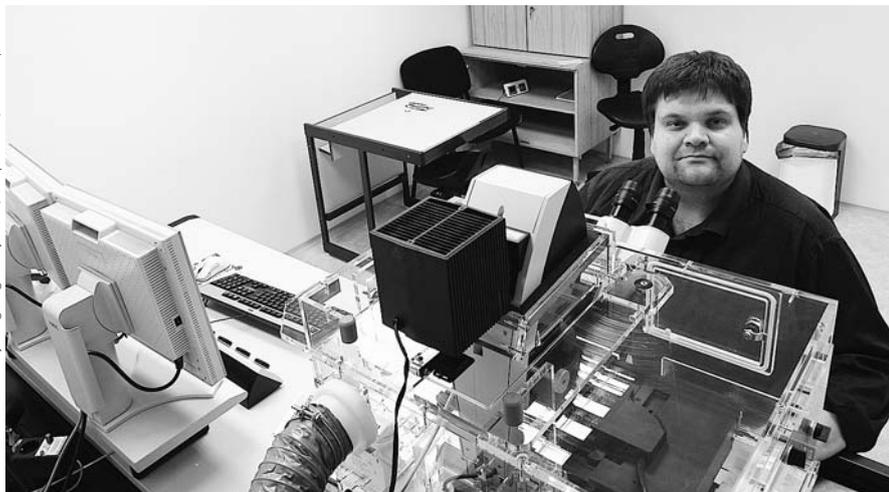
Currently, the Science Museum in London is running an exhibition until the end of May 2009 called *Future Foods*. It aims to give a balanced view of the pros and cons of genetically modified crops and to educate the public about modern plant biotechnology, away from the sensationalism of the national and international press. A European Commission-sponsored opinion poll from June 2008 showed a slight change in awareness and acceptance of GM technology by the public. "If, as is to be expected, Europe's consumers can benefit from cheaper, better food, or can be convinced of broader benefits amid a global food crisis, then opposition will decline," commented an editorial in the February 2009 issue of *Nature*. Even if GM crops are not a miracle cure to fight poverty, they can contribute to reducing the use of chemicals, increasing yields and thereby lowering food costs. But that does not change the fact that the key to solving world hunger lies in economically sound and socially just sustainable agriculture.

Yvonne Kaul

Back home: dream lab, dream team

EMBO Installation Grantee Martin Anger returns to the Czech Republic

© Ústav živočišné fyziologie a genetiky AV ČR, v.v.i. | Liběchov, Czech Republic



Martin Anger at the imaging work station – the heart of his new lab

He looks like a child with a new toy. A very expensive toy: the Leica imaging workstation that takes live pictures of the chromosome segregation during mammalian meiosis costs more than half a million euro. *Martin Anger* (pictured above) could afford this sum thanks to a new cash injection. Anger is one of the seven new EMBO Installation Grantees, who each receive an annual grant of 50,000 euro to help them return home and build up their own research groups. After eight years in Philadelphia, Vienna and finally Oxford, the 39-year-old travelled back to his home country, the Czech Republic, last year. He virtually beams with optimism, convinced that this was just the right move at the right time. "Our

country has a great potential and I believe that by coming back I can help Czech science a lot," says the new group leader at the Institute of Animal Physiology and Genetics in Liběchov, a town close to Prague. To him, the EMBO Installation Grant means not only an additional source of money but also excellent networking opportunities and international prestige.

But isn't he afraid of the career-related risks? After all, he gave up job opportunities abroad and accepted cut-backs in funding and payments. "It is true, but salary is always based on where you live," says Anger. The US or UK are both much more expensive than his new home town Brno. "I do not think I am sacrificing my career," he concludes.

Anger concentrates on the positive aspects of his move instead. "I think the great potential of our country is its flexibility," he says. After years of stagnation, the Czech Republic is focusing on improving its research base and the funding system. In the past, science there was centralized and plans were set up five years in advance. But scientists cannot really plan so far ahead, so the whole system is being reinvented, leaving room for new initiatives. Knowledge transfer from countries with an advanced scientific infrastructure and international contacts are particularly important at this stage.

What are his first impressions being back at home? "I feel good," says Anger, who returned in 2008 with his wife and settled down in Brno, the second largest city in the Czech Republic. During the time abroad he stayed in touch with his colleagues at home and tried not to burn bridges. His old and new contacts help him recruit his team. One senior scientist, two PhD students and one or two technicians – this is what his dream team looks like.

His position as group leader requires an entirely new perspective. "When you work as a post-doc you do not care where the money comes from," he says. "I have sleepless nights now and then, but as a supervisor of many little projects I also get the big picture. And this is actually the beauty of science".

EMBC Delegates gathered in Hinxton

Results of November 2008 EMBC Meeting

Delegates and advisers from the member states of the European Molecular Biology Conference (EMBC) – the intergovernmental funding body of EMBO – met on 24 November 2008 at the parkland campus of EMBL-EBI in Hinxton, Cambridge UK. EMBO management, representatives from the EMBO Council and the European Commission, the Director General of EMBL and auditors also attended the meeting. The agenda reviewed funding requirements for EMBO programmes and activities. During the meeting, EMBO Young Investigator *Giles Oldroyd* was invited to present to the Conference on his research related to plant-bacterial partnership in nitrogen fixation.

Peter Weisbeek (Netherlands) was re-elected as EMBC President for 2009. *Claudio Sunkel* (Portugal) was re-elected for a second one-year term and *Toivo Maimets* (Estonia) was elected for the first time, both as Vice-Presidents. *Krešimir Pavelić* (Croatia) was elected Secretary General for 2009. *Maria José Almeida* (Portugal) and *Paula Heppner* (Germany) were re-elected as Chair and Vice-Chair respectively of both the Financial Advisory Group and the Audit Committee.

The Conference reviewed and approved a new website for the EMBC, developed by the EMBO Communications group. The new site offers an improved design and clearer navigation for visitors.

EMBC Officers 2009

- **Peter Weisbeek, NL**
President
- **Toivo Maimets, EE**
- **Claudio Sunkel, PT**
Vice Presidents
- **Krešimir Pavelić, HR**
Secretary General
- **Maria Jose Almeida, PT**
Chair of Financial Advisory Group
- **Paula Heppner, DE**
Vice-Chair of Financial Advisory Group
- **Peter Weisbeek, NL**
Chair of Strategic Working Party

<http://embc.embo.org>

A new face for the World Wide Web

Redesigned EMBO website has visitors in mind

By mid-March in Heidelberg we begin to see the first signs of spring with new buds emerging to face the sunshine that bathes our hillside. This spring EMBO too is putting on a new face. Our new website was launched on 12 March.

A multi-functional group of EMBO staff worked tirelessly to develop the new site, employing a platform that separates the content from the structure and design so that future changes can be made seamlessly. What this means is that the new site has a great new design, simple and fast navigation and improved functionality for users and for web workers.

The first thing you will notice when you visit www.embo.org now is the new look that combines a sea of respectful blue and contemporary elements attesting to the fact that this is no stuffy academy!

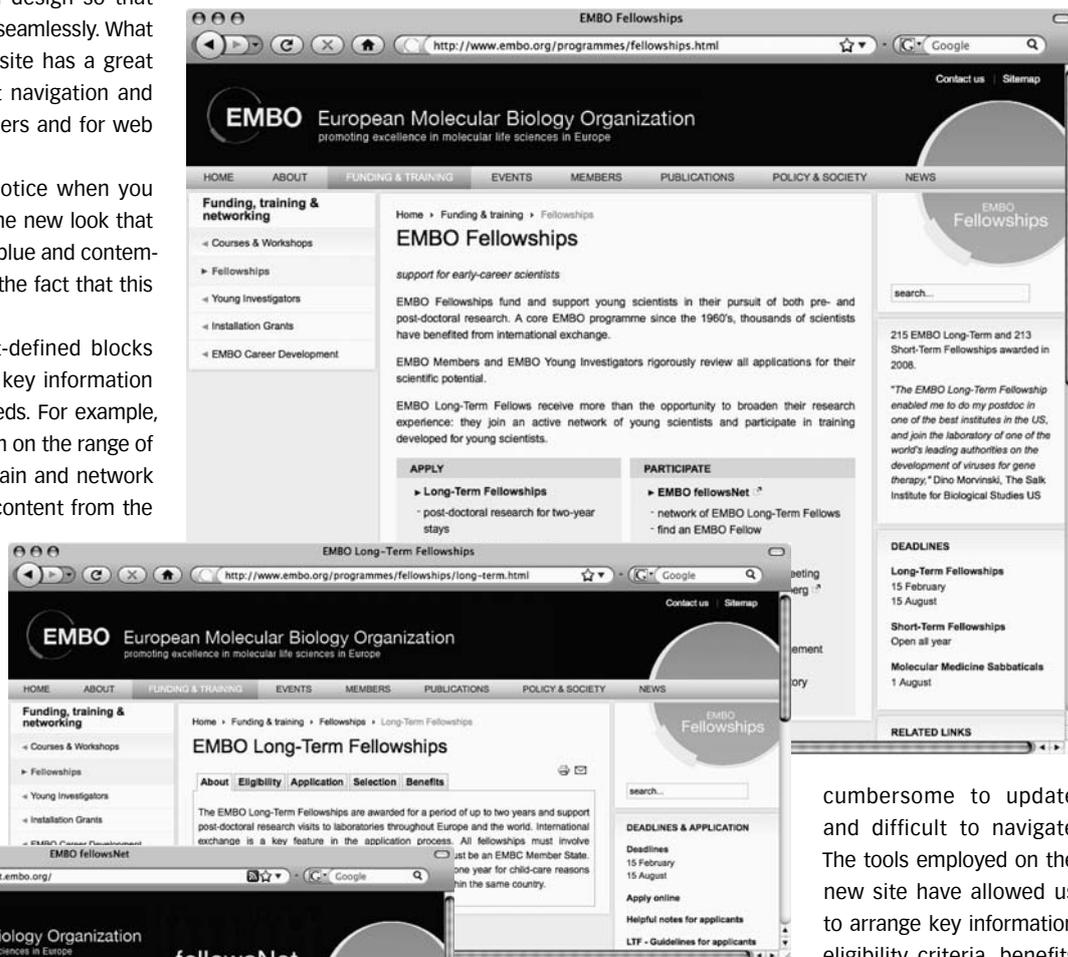
Next, you'll find content-defined blocks on the home page grouping key information according to various user needs. For example, visitors looking for information on the range of EMBO initiatives that fund, train and network life scientists would access content from the box on the top left of the home page. From here, visitors have a choice in their navigation path. They can follow the block heading to find brief descriptions of all that is on offer within that area and then follow a specific link to the programme

of interest. Or, if they know which programme they are looking for, they can follow the link directly from the home page.

For the most part, the web team tried to keep the layout of the programme pages consistent – like in the EMBO Fellowships (see below). Following the link to EMBO Fellowships yields a brief description of what's on offer and two columns for those who may want to

apply for a fellowship or for those who want to participate in, for example, the annual EMBO Fellows Meeting.

Web technologies and how we use the web have come a long way since the previous EMBO website was launched in 2005 using what was then a state-of-the-art platform. Over the years, the amount of information required to support EMBO activities made the old site



cumbersome to update and difficult to navigate. The tools employed on the new site have allowed us to arrange key information, eligibility criteria, benefits, application procedures and selection criteria using tabbed pages for easy access (see EMBO Long-Term Fellowships).

There's a lot more we could tell you about the site, but why read about it when you can experience it. Take a look: www.embo.org

The new website platform has allowed the integration of EMBO fellowsNet. The web portal allows scientists who have benefited from the funding and support of EMBO Long-Term Fellowships to connect with each other and the broader EMBO community. The relaunch has already attracted a large number of visitors and many active EMBO Fellows have joined to highlight their scientific profiles and publications, bringing the total number of registered fellows to more than 900.

Attracting excellent scientists back is key for European research

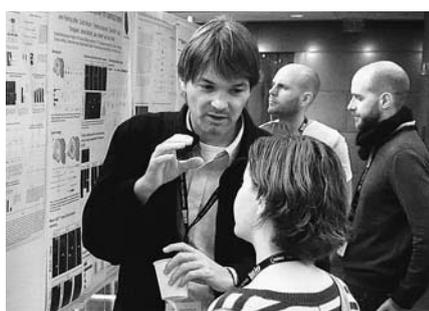
Third EMBO US Fellows Meeting at Harvard Medical School



"After meetings at Rockefeller University, New York and the Salk Institute for Biological Studies, California, the decision to host the EMBO US Fellows Meeting at Harvard has been easy," said *Tom Rapoport*, EMBO Member based at Harvard Medical School and host of the US meeting. One hundred fellows enjoyed the opportunity to meet, exchange and socialize during the three-day get-together held in Boston, US in November 2008.

Europeans going to North American laboratories make up one third of all EMBO Long-Term Fellowship awardees. *Anthony Pugsley*, Chair of the EMBO Fellowship Committee, has been involved in most of the applications of the present fellows. "The statistics tell that research proposals of US EMBO Fellows are very innovative and usually score a few decimals higher than the others," he noted. According to Rapoport, an EMBO Fellowship is a great opportunity to gain research experience in the US. "I had many European post-docs and EMBO has always been close to my heart." "Autonomy in research," Rapoport predicted, "will be achieved by independent funding schemes. Tenure-track positions without financial dependence on the department will be key for future junior faculty in Europe." Giving scientists a head start for their career back at home is one of the declared goals of the fellowship programme. "We encourage knowledge transfer back to Europe," said Pugsley.

"Although we in Europe are good in training young scientists, we are doing poorly in attracting excellent scientists back. Meetings like this are therefore very important," confirmed *Oscar Marín*, Member of the Scientific Council of the European Research Council (ERC) in his presentation of the new ERC funding programme. The ERC starting grant, for example, aims to attract and retain the next generation of independent research leaders. The programme is open to any nationality and funding is portable within Europe. According to Marín, a major



difference to the US funding schemes of the National Institutes of Health (NIH) is that ERC is more open to risky and ground breaking research and that less evidence of research history is required.

US-American, *John LaCava*, still seemed fascinated by the possibilities of a scientific career in Europe. After a PhD at the Wellcome Trust, Centre for Cell Biology, Edinburgh, UK he decided for a postdoctoral fellowship at the Centre for Genomic Regulation in Barcelona, Spain as an EMBO Fellow. LaCava concluded: "There was no downside of going to Europe, I had an excellent professional experience enriched by a great personal life. European science is especially open to cross-activities and often tries to involve multinational collaborations."

Jan Taplick, EMBO Fellowship Programme Manager, mentioned in his talk the special funding opportunities for postdocs aiming to lead a junior research group. "Two thirds of postdocs who were fellows ten years ago have moved on to group leader or tenure track faculty positions," he quoted. Taplick also spoke about the novel Molecular Medicine Sabbatical for clinicians and EMBO Installation Grants to encourage scientists to set up their labs in southern and eastern European countries (see page 3).

On the last day of the meeting, *Thomas Schwarz-Romond* from *The EMBO Journal* and *Kris Dickson* from *Cell Press* – both former EMBO Fellows – granted a glimpse behind the scenes of the editorial process. Vividly

discussed was the acknowledgment of post-doc contributions to reviewing manuscripts. Dickson recommended that the principal investigator should mention their input, not only to enable a balanced view on the report but also to identify young scientists that provide important services to the scientific community. Innovative forms such as podcasts and comment sections were mentioned as the new trends in publishing. "Web development and communication are becoming a growing part of the editor's responsibility," Dickson explained.

A major part of the meeting was filled by presentations of EMBO Fellows on their ongoing research. The talks showed that EMBO also supports emerging fields of molecular biology, such as microbial cell communication. *Lars Dietrich* was surprised that his project on prokaryotic quorum sensing got selected, although it does not include topics like RNA interference or neuronal cell biology. "EMBO clearly encourages pioneer projects of high scientific caliber," said Jan Taplick. The next EMBO Fellows Meeting will be held in Heidelberg in June 2009.



By *Fabian V. Filipp*, EMBO Fellow at the University of California San Diego, US

Bi-annual application deadlines

15
February

15
August

EMBO Fellowships

Kids at play, parents in conference

Childcare services at The EMBO Meeting



Christine Panagiotidis | EMBL-PhotoLab

Regular participation in meetings, conferences and symposia is critical for keeping up-to-date, establishing networks and forging new collaborations – especially for early-stage scientists. Because of family responsibilities, many – mostly female – scientists are hindered in actively taking part in such meetings.

EMBO seeks to support researchers to take full advantage of its activities. Childcare during *The EMBO Meeting* in Amsterdam has been a high-priority from the very start of the preparations for the annual life sciences conference. Last year, EMBO received a New Scholars' Grant from The Elsevier Foundation to help lower the costs of childcare services for participants. The money will allow EMBO to work with *Helga Duczek*, a certified educator specialising in nature- and forest-based forms of educating children (see box), and to keep

the costs during *The EMBO Meeting* at a low rate of 35 euro per child per day.

Fun down the road

Exploring museums, playing at the beach, going on trips to the city centre – there is fun down the road for the delegates' children. An attractive beach programme awaits, for example, the little ones. The six to eight year olds will be occupied in an adventure park, while kids aged 9–13 will spend their time in Amsterdam city-centre visiting exciting sights. All activities will be fully supervised by staff fluent in several languages: English, German, French and Spanish. So while the parents will be listening to the latest news on molecular biology, the little ones will enjoy some great outdoor activities – just before the summer comes to an end.

Forest education

Experiencing nature, exploring forests, learning firsthand about the various ecosystems – these are the ideas behind Helga Duczek's educational concepts. The „certified forest educator“ has eighteen years of practical experience in open-style work with children, integration of handicapped children in mixed groups and teaching children from different cultures and nationalities. Throughout her career, Helga Duczek developed dozens of kindergarten and school projects with appealing names like *Forest Fleas*, *Phantom of the Forest* or *Country Arts*. Her unusual educational approach has found favour with partners such as BASF, SAP and EMBL.

www.the-embo-meeting.org | the.embo.meeting@embo.org

SPECIAL LECTURES

Ronald **PLASTERK** NL
Harald **ZUR HAUSEN** DE
Svante **PÅÅBO** DE
Fotis **KAFATOS** UK
Martin **REES** UK

KEYNOTE LECTURES

Kim **NASMYTH** UK
Peter **RATCLIFFE** UK
Michael **HALL** CH
Rudolf **JAENISCH** US

PLENARY LECTURES

Chromosomes: dynamics,
maintenance & evolution
David **SHERRATT** UK
Titia **DE LANGE** US
Stephen **WEST** UK

Signalling pathways in
development & cancer
Julian **DOWNWARD** UK
Anne **RIDLEY** UK
Elaine **FUCHS** US
Axel **ULLRICH** DE

Stem cells –
Molecular Medicine
Symposium
Fiona **WATT** UK
Shinya **YAMANAKA** JP
Austin **SMITH** UK
Hans **CLEVERS** NL

SCIENTIFIC ORGANISERS Hans **CLEVERS** & Stephen **WEST**

SUNDAY WORKSHOPS

Small regulatory RNAs
René **KETTING** NL
Elisa **IZAURRALDE** DE
Cell death
Michael **HENGARTNER** CH
Peter **KRAMMER** DE
DNA damage & repair
Stephen **JACKSON** UK
Simon **BOULTON** UK
Structural proteins of
the Golgi
Graham **WARREN** AT
Catherine **RABOUILLE** NL
TOR signalling
Dario **ALESSI** UK
Michael **HALL** CH
Functional genomics
Eran **SEGAL** IL
Jussi **TAIPALE** FI
Innate immunity
Caetano **REIS E SOUSA** UK
Jules **HOFFMANN** FR

MONDAY WORKSHOPS

Trafficking & transport at
cell membranes
Poul **NISSEN** DK
Margaret **ROBINSON** UK
Cell adhesion
& communication
development
Rolf **KEMLER** DE
Elizabetta **DEJANA** IT
Chromatin dynamics,
modification
& gene expression
Tony **KOUZARIDES** UK
Geneviève **ALMOUZNI** FR
Proteomics & cell biology
Matthias **MANN** DE
Angus **LAMOND** UK
Protein machines
Dale **WIGLEY** UK
Karl-Peter **HOPFNER** DE
The cell cycle
Tim **HUNT** UK
Karim **LABIB** UK
Zebrafish in the study of
development & disease
Steve **WILSON** UK
Stefan **SCHULTE-MERKER** NL

TUESDAY WORKSHOPS

Host-pathogen interactions
Keith **GULL** UK
Pascale **COSSART** FR
Small GTPases:
from molecules to systems
Johannes **BOS** NL
Dafna **BAR-SAGI** US
Meiotic recombination
Alain **NICOLAS** FR
Lumír **KREJČÍ** CZ
Lipids & membrane
organisation
Kai **SIMONS** DE
Gerrit **VAN MEER** NL
Nanobiology
Andreas **ENGEL** CH
Nynke **DEKKER** NL
Cell polarity
Jürgen **KNOBLICH** AT
Anne **EPHRUSSI** DE
Protein modification by
SUMOylation & ubiquitylation
Ronald **HAY** UK
Frauke **MELCHIOR** DE

the
EMBO
meeting

advancing the life sciences

AMSTERDAM

2009

29 August –
1 September

DEADLINE
Online registration
14 August

EMBO

European Molecular
Biology Organization

Mixed teams trigger the best ideas

Interview with the winner of the 2009 FEBS/EMBO Women in Science Award

Having worked in various institutes in the US and France, *Anne Houdusse* knows all about work and life as a female scientist climbing up the career ladder. The winner of this year's FEBS/EMBO Women in Science Award is a researcher at the French National Centre for Scientific Research (CNRS) and now leads her own group at the Curie Institute in Paris, where she enjoys "a fabulous working environment and a democratic decision process". But there is still a long way to go until men and women have equal career opportunities. Today, the mother of two is a prominent structural biologist, focussing on the molecular mechanism of action of myosins. For *EMBOencounters*, she speaks about how the competition between the sexes has changed over the last two decades.

Anne, did you ever have any doubt about becoming a scientist?

I had the dream of doing science for a long time. But I was not sure I was good enough. Many women do not think they can succeed without hard work.

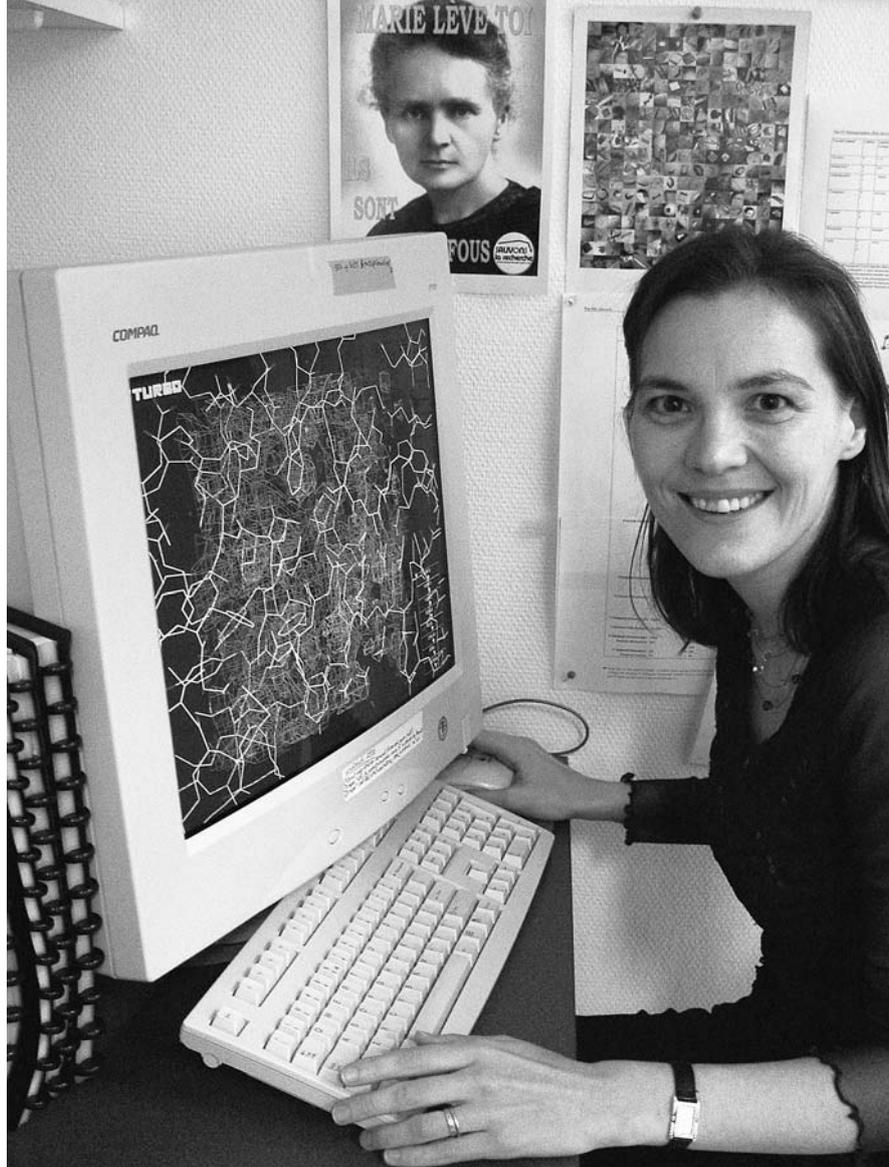
How smooth or how bumpy was the road to the position you are holding now?

Comparing my way to *Carolyn Cohen's*, my mentor during the post-doctoral fellowship at Brandeis University, in the US, it is clear that career-making nowadays is much easier than it used to be. My experience has been varied. When I did my PhD in the late eighties in France, not everyone believed that I could contribute to science. The communication with my superiors was, for example, difficult. I often had to go to my director's office to explain why certain experiments did not work but I was rarely involved in the thinking of the project. I wished I experienced more lively scientific interactions at that time.

At the Curie Institute things changed completely. They carefully select their staff but once you are on board, they give you the freedom to do science the way you want. It was a turning point in my career, also because with so much encouragement and help I started to believe in myself.

How important was career-making to you?

At an early stage, during my postdoc, I was very naïve. I just enjoyed working on the



EMBO Women in Science Award winner Anne Houdusse

project and tried to do my best without thinking of the benefits for my career. Internal politics did not bother me at all. Sharing what I knew and helping others was the climate of that time. It became different when I came back to France and started to compete for a group leader position.

Regarding equal opportunities in science, what is the situation in France like today?

The French have learnt to promote equal opportunities over the past years. Today, in big institutes like the Curie Institute women are equal to men. Group leaders decide, for example, collectively who will be the next to join their ranks. But in certain places, old-fashioned thinking can still be found. Some politicians in this country assume that women cannot take on as many responsibilities as men because they need to take care of their family.

France is widely regarded as a paradise for working mothers because of the good childcare system. Was it also your experience?

This is true. When I came back from the US in 1999, I was a single mother for nine months.

And everything went really easy. But having two children it would not have been possible to stay long hours in the lab without help from my husband and my mother.

Do women do science differently than men?

Men are usually more self-confident and move forward faster, whereas women are cautious and pay more attention to detail. I think it is the combination of a man's and a woman's spirit that triggers the best ideas. Almost all scientific achievements awarded this year were done in collaboration with my colleague *Lee Sweeney*.

Do you have a personal role model?

Marie Curie, of course.

Why her?

Because she was a foreigner in France and still managed to contribute so much to science in this male-dominated world. Marie Curie made me dream of becoming a scientist already when I was very young. And I like to have dreams.

EMBO EVENTS JUNE–NOVEMBER 2009

PRACTICAL COURSES (EUROPE)

- Electron tomography in life science
NL–Leiden, 1–7 June
- Light microscopy in living cells
PT–Oeiras, 1–8 June
- Molecular genetics with the fission yeast *Schizosaccharomyces pombe*
UK–Manchester, 13–25 June
- EMBO/MAX-INF2 course on structure determination in macromolecular crystallography
FR–Grenoble, 15–19 June
- High throughput methods for protein production and crystallization
UK–Oxford, 17–25 June
- Molecular approaches to evolution and development
SE–Fiskebaeckskil, 29 June–10 July
- Developmental neurobiology from worms to mammals
UK–London, 1–15 July
- Single molecule analysis of DNA protein interactions
FR–Paris, 5–18 July
- Structure, dynamics and function of biomacromolecules by solution NMR
DE–Garching, 27 July–3 August
- Two-photon imaging of brain cell dynamics
CH–Zurich, 6–13 September
- Image processing for cryo-electron microscopy
UK–London, 7–17 September
- Quantitative FRET, FRAP and FCS
DE–Heidelberg, 23–28 September
- Networks in biology analysis, modeling and reverse engineering
IT–Bologna, 26–30 September
- Current methods in cell biology
DE–Heidelberg, 8–16 October
- Advanced analysis and informatics of microarray data
UK–Hinxtton, 12–17 October
- The combination of electron microscopy and x-ray crystallography for the structure determination of large biological complexes
FR–Gif-sur-Yvette, 18–24 October
- High throughput microscopy for systems biology
DE–Heidelberg, 8–13 November

PRACTICAL COURSES (WORLD)

- II International school of biochemistry, molecular & cell biology – current tools in cell biology: probing normal and pathological cell functions
BR–Rio de Janeiro, 3–14 August
- DNA microarray – analysis and applications
IN–Tamil Nadu, 16–20 August
- Bioinformatics and comparative genome analyses
CN–Hong Kong, 17–29 August
- Advanced bioinformatic methods in the study of gene and genome evolution
CO–Medellin, 23–30 August
- Structure and dynamics of biomolecules by NMR spectroscopy
AR–Rosario, 21–30 September

WORKSHOPS (EUROPE)

- Blood and lymphatic vasculature: from models to human disease
FI–Helsinki, 12–13 June
- Cortical interneurons in health and disease
ES–Mallorca, 21–25 June
- RUNX transcription factors in development and disease
UK–Oxford, 16–19 August
- Developmental systems
CH–Arolla, 18–22 August
- Frontiers of prokaryotic cell biology
UK–Oxford, 24–27 August
- Wnt signalling in development and disease
CH–Arolla, 26–29 August
- Messenger RNA 3' ends and gene expression
UK–Oxford, 16–20 September
- 2009 EMBO Molecular Medicine Workshop – Invasive growth: A genetic programme for stem cells and cancer
IT–Torino, 25–28 September
- Mitochondria, apoptosis and cancer
CZ–Prague, 1–3 October
- Evo-Devo meets marine ecology: New frontiers in ocean science through integrative biology
IT–Ischia (Napoli), 9–11 October

CONFERENCE SERIES

- Cancer Proteomics 2009: Mechanistic insights, technological advances and molecular medicine
IE–Dublin, 8–11 June
- Helicase and NTP-driven nucleic acids motors: Structure, function, mechanism and roles in human disease
CH–Les Diablerets, 27 June–2 July
- Population and molecular biology of vectors
GR–Kolybari, 19–26 July
- 8th International Conference on ribosome synthesis
DE–Regensburg, 26–30 August
- The physics of cells
HR–Dubrovnik, 6–13 September
- Meiosis
FR–Isle sur la Sorgue, 19–23 September
- Morphogenesis and dynamics of multicellular systems
DE–Heidelberg, 2–6 October
- Endocytic machineries in control of cell signalling and tissue morphogenesis
GR–Chania, 3–8 October
- Comparative genomics of eukaryotic microorganisms: diversity of life
ES–San Feliu de Guixols, 17–22 October
- Autophagy – cell biology, physiology and pathology
CH–Ascona, 18–21 October

CONFERENCE SERIES *second in a series*

- Advances in stem cell research: Stem cells, systems and synthetic biology
UK–Cambridge, 15–17 June
- Europhosphatases: Protein phosphatases in development and disease
NL–Egmond aan Zee, 14–18 July
- Protein synthesis and translational control
DE–Heidelberg, 9–13 September

CONFERENCE SERIES *second in a series (cont.)*

- Antigen receptor signalling: from lymphocyte development to effector function
IT–Certosa di Pontignano, 12–16 September
- Ubiquitin and ubiquitin-like modifiers in health and disease
IT–Riva del Garda, 23–27 September
- Nuclear receptors: from molecular mechanisms to molecular medicine
HR–Dubrovnik, 25–29 September
- Nuclear structure and dynamics
FR–Isle sur la Sorgue, 30 September–4 October
- The assembly and function of neuronal circuits
CH–Ascona, 5–8 October
- Host genetic control of infectious diseases
FR–Paris, 7–10 October
- *Legionella*
FR–Paris, 13–17 October

EMBO–ESF SYMPOSIA

- Biological surfaces and interfaces
ES–Sant Feliu de Guixols, 28 June–3 July

EMBO–FEBS LECTURE COURSES

- Molecular and cellular membrane biology
FR–Cargese, 8–19 June
- Proteins and their networks – from specific to global analysis
GR–Spetses, 7–17 September

OTHER EMBO EVENTS

Laboratory Management and Advanced Training Courses

- *Conflict*
DE–Leimen (near Heidelberg), 12–14 October
- *EMBO Laboratory Management Courses (for postdocs)*
DE–Leimen (near Heidelberg)
→ 6–8 July
→ 7–9 October
- *EMBO Laboratory Management Courses (open to all independent scientists)*
DE–Leimen (near Heidelberg)
→ 14–17 September
- *EMBO Laboratory Management Courses in Cambridge, UK (open to all independent scientists)*
UK–Cambridge
→ 5–8 May
→ 10–13 November

For more information and list of all courses, workshops and conferences, (January–December 2009) please go to:

- www.embo.org/about_embo/calendar.php

Bi-annual application deadlines for organizers to apply for EMBO funds



EMBO Courses & Workshops

Developing skills for optimal lab performance

EMBO Laboratory Management Courses

Young group leaders are not always adequately prepared for the challenges of their new positions. It is one thing to pursue ambitious scientific goals and accomplish a project independently as a postdoc. But it is another thing to take on team leadership and run a lab. To address this issue and help new principal investigators, EMBO developed a series of courses to help with staff selection, leadership, problem solving and communication. Now in their fifth year, EMBO Laboratory Management Courses have received positive feedback from around 300 participants. Meanwhile, EMBO also offers courses for postdocs as well as Advanced Leadership Courses in coaching, managing lab conflicts and time and self-management.

"It was a good opportunity to take a step back and rethink my performance," said *François Spitz*, who attended the four-day open course last February. Having had two years experience as a group leader at EMBL in Heidelberg, Spitz should not have been a novice any more.

But he said he left the course with a better understanding of how to manage his five-person-lab. The topics ranged from theoretical approaches to human interactions to practical advice on how to express criticism in a proper

way or manage conflicts – a knowledge that he hopes will never be necessary. "I wish the course was sometimes more specifically tailored to the needs of a basic research team with students, postdocs and other staff, but

group so you cannot hide and you are actually testing these things out on each other. It is very focused on people management." Indeed, the participants of the February course held in a conference centre near Heidelberg spent one day on drawing pictures about the situations in their labs and practising interviews on each other. Active listening was another task aimed to help understand each other and improve the internal communication flow in the lab. In molecular biology, research teams often consist of different nationalities and personalities. Some prefer doing several things at the same time – others work sequentially. One person needs the exchange, another achieves the best by working alone. Understanding the need for a personalized approach is often the first step toward a great performance.

For more information about dates and venues of the upcoming courses go to

www.embo.org/programmes/courses-workshops/lab-management-courses.html

in general the training was very useful," commented the developmental biologist.

"These courses are very hands on," said *Gerlind Wallon*, manager of the EMBO Young Investigator Programme. "You are in a small



EMBO Poster Prize competition

Recognizing young researchers



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

→ Aurelia Barascu

CEA, Fontenay-aux-Roses, France

Nuclear structure alteration in Ataxia telangiectasia: lamin B1 defects and premature aging at the EMBO Workshop *The multiple faces of lamins in aging and disease*, Vienna, Austria, 6–9 January 2009.

→ Edmund Loh

Department of Molecular Biology, Umea University, Umeå, Sweden

Control of PrfA expression by a trans-acting S-adenosylmethionine riboswitch in *Listeria monocytogenes* at the EMBO Workshop *New functions of regulatory RNAs in pro- and eucaryotes*, Vienna, Austria, 14–15 January 2009.

→ Oksana Voloshanenko

DKFZ, Heidelberg, Germany

Detachment-induced sensitisation to TRAIL explains the metastasis-specific role of the TRAIL/TRAIL-R system in epithelial tumorigenesis at the EMBO Workshop *Model organisms in cell death research*, Obergurgl, Austria, 31 January–4 February 2009.

→ Stefan Wieser

Institute for Biophysics, Linz, Austria

What can we learn from single-molecule diffusion? at the EMBO Workshop *Visualizing immune system complexity*, Marseille, France, 15–17 January 2009.

How to change a running system

Record attendance at Systems and Synthetic Biology Conference



Manetta Schupp | EMBL-Photolab

With more than 250 visitors, last year's EMBL/EMBO Science & Society conference in Heidelberg on 7–8 November achieved a new attendance record. The programme centred around the topic *Systems and Synthetic Biology: Scientific and Social Implications*; attracting biologists, sociologists and political representatives alike – among them, some of the pioneers of this relatively new branch of molecular biology. Lively discussions and active participation during the two-day meeting clearly demonstrated that there is a need for explanation about how this new way of thinking can change our understanding of life.

Leroy Hood, who founded the first institute for systems biology nine years ago, talked about “a fundamental transformation” of medical practice in the near future. He envisioned a new ‘4P medicine’ – *Predictive, Personalized, Preventive and Participatory* – as a concrete consequence of the fast-paced advances in large-scale measurement technologies and computational methods. Gerontologist *Tom Kirkwood* from the University of Newcastle described the “multiple, complex and highly interactive” mechanisms of the ageing process as particularly suited to a systems-biology approach.

Adriano Hanney passionately advocated that systems biology may in fact represent

the only way for the pharma industry to move away from the ruinous guess & pray strategy in drug development and embrace a more rational, albeit challenging, predict & test approach. The future will tell...

Joyce Tait delineated several of the societal challenges associated with the new disciplines. She warned the audience of a potential backlash caused by unrealistic expectations, buzzwords and hype that are typically associated with new and highly dynamic fields. Systems and synthetic biology are definitely no exception in this regard. She also emphasized the need to follow evidence-based standards to support decisions when defining appropriate policies and summarized her view by calling for “smarter governance rather than less regulation.”

While the degree of participation was very encouraging, bringing such an eclectic audience together had also the almost inevitable consequence of discussion sometimes drifting onto rather futuristic or abstract views and losing the focus on concrete achievements and more imminent practical consequences. But *Sibylle Gaisser* reminded the audience that some of the very material consequences

may become reality soon: the systems and synthetic biology market is supposed to grow from the present 450 million up to 2.5 billion euro.

The next EMBL/EMBO Science & Society Conference takes place in November 2009 ▶

EMBO EMBL

10th
EMBL/EMBO JOINT
CONFERENCE ON
SCIENCE & SOCIETY

Food sustainability and plant science
A global challenge

6-7 NOVEMBER 2009
EMBL Heidelberg, GERMANY

FRIDAY | 6 November
KEYNOTE TALK
Pamela Ronald

SESSION I
Plant breeding and the maintenance of diversity

SESSION II
Breeding and the molecular genetics that support it

SATURDAY | 7 November
SESSION III
Enhancing plants by GM

SESSION IV
Public perception and risk assessment

CLOSING TALK
Klaus Hartbrock

Speakers:
Peter Beyer
Hans-Joerg Ruhn
Sir Peter Crane
Catherine Fouillet
Klaus Hartbrock
Luis Herrera Estrella
Ana Ledermann
Imbulaide de Melo-Martin
Marc Van Montagu
Martin Galm
Pamela Ronald
Andy Stirling
Joyce Tait
Lotter Wilmarz
Xue Hong-Wai
Dani Zamir

Registration fee: 45 EUR
Students: 20 EUR
EMBO/EMBO: 100 EUR

www.embo.org/events

From concepts to cures – and back

First issue of *EMBO Molecular Medicine* now published

The launch of *EMBO Molecular Medicine* in April 2009 marks a new era in EMBO activities. The new journal is the fourth member of the EMBO publication family and its objective is to foster molecular research relevant to the understanding, treatment and prevention of human disease.

In line with the longstanding EMBO mission to develop the molecular life sciences through the promotion of interactions between researchers, *Matthias Hentze*, a member of the board of eight senior editors, writes in the first issue of the journal that “the launch of *EMBO Molecular Medicine* is an open invitation to clinical scientists to become part of the EMBO community”.

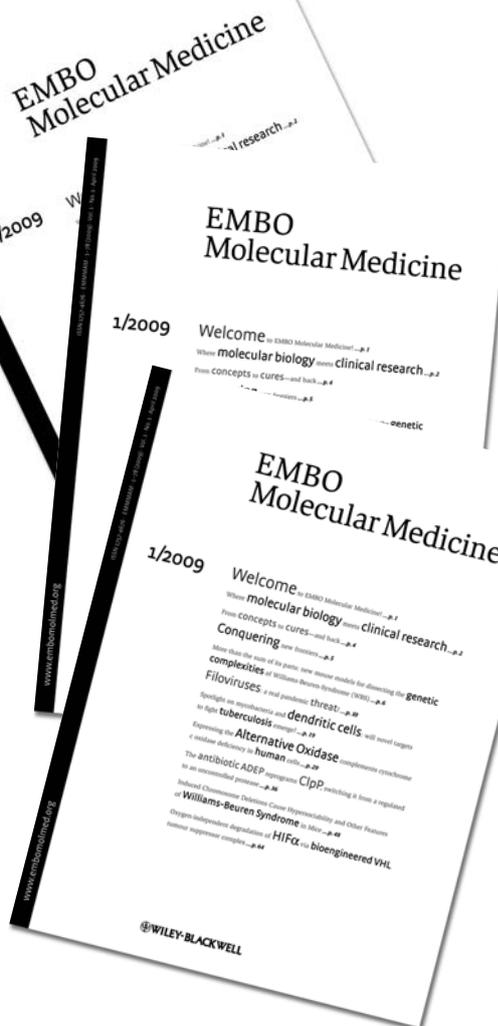
“The journal is also a forum for molecular biologists to learn more about the normal functions of molecules and how their loss or damage causes disease,” adds *Tim Hunt*, Chair of the EMBO Council. Tim points out that although advances in technology have made it much easier to track down and characterize extremely rare genetic diseases, not all this information is immediately interpretable. These studies shed light on the disease, but importantly they often also reveal aspects of cell biology previously unknown that in their turn lead to new insights, advances and further applications.

The new journal is therefore a clear opportunity for basic researchers and clinicians alike to bridge gaps in the translation of novel molecular insights: from biological concepts into the

clinic and from the disease back to biology.

The journal includes a good mix of primary research papers and reviews and the first issue is no exception to that. Topics vary from mouse models of Williams Beuren Syndrome to novel strategies to fight renal cancer and respiratory defects as well as insights into the intricate antibacterial mechanisms of potential next generation antibiotics. Review articles focus attention on the roles played by dendritic cells in tuberculosis and on the threats posed by Ebola and Marburg viruses. A new series of review articles, *Bridge the Gap*, will begin soon and aims to help molecular biologists and clinical researchers to better understand each other’s perspectives, thereby facilitating knowledge transfer from bench to bedside and back.

EMBO Molecular Medicine will publish all articles online within 48 hours of acceptance and will be printed monthly. To maximize visibility, the journal offers free access to its content for the first two years of publication. More information at www.embomolmed.org



Early registration deadline

1
May

EMBO
Molecular Medicine
Workshop

Annual application deadline

1
August

EMBO
Molecular Medicine
Sabbaticals

EDITOR PICKS – EMBO PUBLICATIONS

EMBO Molecular Medicine

reviews

“Filoviruses”: a real pandemic threat?

Martina BEE, Osterhaus ADME
EMBO Mol Med 1: 10–18

Innate instruction of adaptive immunity revisited: the inflammasome

Eisenbarth SC, Flavell RA
EMBO Mol Med
(advanced online publication)
doi:10.1002/emmm.200900014

research articles

Induced chromosome deletions cause hypersociability and other features of Williams-Beuren Syndrome in mice

Li HH, Roy M, Kuscuoglu U, Spencer CM, Halm B, Carlsmith Harrison K, Bayle JH, Splendore A, Ding F, Meltzer LA, Wright E, Paylor R, Deisseroth K, Francke U
EMBO Mol Med 1: 50–65

Oxygen-independent degradation of HIF- α via bioengineered VHL tumour suppressor complex

Sufan RI, Moriyama EH, Mariampillai A, Roche O, Evans AJ, Alajez NM, Vitkin IA, Yang VXD, Liu F-F, Wilson BC, Ohh M
EMBO Mol Med 1: 66–78

Parkinson’s disease mutations in PINK1 result in decreased complex I activity and deficient synaptic function

Morais VA, Verstreken P, Roethig A, Smet J, Snellinx A, Vanbrabant M, Haddad D, Frezza C, Mandemakers W, Vogt-Weisenhorn D, Van Coster R, Wurst W, Scorrano L, De Strooper B
EMBO Mol Med
(advanced online publication)
doi:10.1002/emmm.200900006

www.embomolmed.org

EDITOR PICKS – EMBO PUBLICATIONS

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



research articles

Profilin 1 is required for abscission during late cytokinesis of chondrocytes

Böttcher RT, Wiesner S, Braun A, Wimmer R, Berna A, Elad N, Medalia O, Pfeifer A, Aszódi A, Costell M, Fässler R
EMBO J (advanced online publication, 05 March 2009)
doi:10.1038/emboj.2009.58

Protein quality control during aging involves recruitment of the macroautophagy pathway by BAG3 (EMBO Open)

Gamerding M, Hajjeva P, Kaya AM, Wolfrum U, Hartl FU, Behl C
EMBO J (advanced online publication, 19 February 2009)
doi:10.1038/emboj.2009.29

A GLI1-p53 inhibitory loop controls neural stem cell and tumour cell numbers (EMBO Open)

Stecca B & Ruiz i Altaba A
EMBO J (advanced online publication, 12 February 2009)
doi:10.1038/emboj.2009.16

Mislocalization of the MRN complex prevents ATR signaling during adenovirus infection

Carson CT, Orazio NI, Lee DV, Suh J, Bekker-Jensen S, Araujo FD, Lakdawala SS, Lilley CE, Bartek J, Lukas J, Weitzman MD
EMBO J (advanced online publication, 05 February 2009)
doi:10.1038/emboj.2009.15

TRF2 promotes, remodels and protects telomeric Holliday junctions

Poulet A, Buisson R, Faivre-Moskalenko C, Koelblen M, Amiard S, Montel F, Cuesta-Lopez S, Bornet O, Guerlesquin F, Godet T, Moukhtar J, Argoul F, Déclais A-C, Lilley DMJ, Ip SCY, West SC, Gilson E, Giraud-Panis M-J
EMBO J (advanced online publication, 05 February 2009)
doi:10.1038/emboj.2009.11

www.embojournal.org



scientific reports

The NS3 protein of rice hoja blanca virus complements the RNAi suppressor function of HIV-1 Tat

(2009) Schnettler E, de Vries W, Hemmes H, Haasnoot J, Kormelink R, Goldbach R, Berkhout B
EMBO rep **10(3)**: 258–263

DAP-kinase-mediated phosphorylation on the BH3 domain of beclin 1 promotes dissociation of beclin 1 from Bcl-X_L and induction of autophagy

(2009) Zalckvar E, Berissi H, Mizrachy L, Idelchuk Y, Koren I, Eisenstein M, Sabanay H, Pinkas-Kramarski R, Kimchi A
EMBO rep **10(3)**: 285–292

reviews

Retroviral integrase superfamily: the structural perspective

(2009) Nowotny M
EMBO rep **10(2)**: 144–151

From cancer genomes to cancer models: bridging the gaps

(2009) Baudot A, Real FX, Izarzugaza JMG, Valencia A
EMBO rep **10(4)**: 359–366

science & society

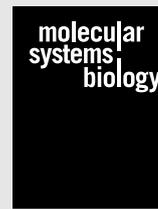
Talking Points on morality and human embryo research

(2009) Baldwin T
(Talking Point introduction)
Douglas T & Savulescu J
(Talking Point),
George RP & Lee P
(Talking Point)
EMBO rep **10(4)**: 299–312

A decade of stem-cell research

An interview with John Gearhart, Director of the Institute for Regenerative Medicine at the University of Pennsylvania, USA.
(2009) Wolinsky H
EMBO rep **10(1)**: 12–16

www.emboreports.org



editorial

Personalizing medicine: a systems biology perspective

Deisboeck TS
Mol Syst Biol **5**: 249

research articles

Force- and kinesin-8-dependent effects in the spatial regulation of fission yeast microtubule dynamics

Tischer C, Brunner D, Dogterom M
Mol Syst Biol **5**: 250

Force- and length-dependent catastrophe activities explain interphase microtubule organization in fission yeast

Foethke D, Makushok T, Brunner D, Nédélec F
Mol Syst Biol **5**: 241

Environment-specific combinatorial cis-regulation in synthetic promoters

Gertz J, Cohen BA
Mol Syst Biol **5**: 244

Input-output behavior of ErbB signaling pathways as revealed by a mass action model trained against dynamic data

Chen WW, Schoeberl B, Jasper PJ, Niepel M, Nielsen UB, Lauffenburger DA, Sorger PK
Mol Syst Biol **5**: 239

news & views

How to deal with large models?

Hlavacek WS
Mol Syst Biol **5**: 240

www.molecularsystemsbiology.com

Howy Jacobs joins *EMBO reports*

New Senior Editor to pilot journal into second decade

Howy Jacobs has written four novels, yet has no time to get them published. But now, readers of *EMBO reports* will find more of his writing in the monthly editorials. In April 2009, the scientist is taking over the job of the Senior Editor of *EMBO reports* from its founder Frank Gannon. "I am ready to accept the task of piloting the journal into its second decade," declared Howy Jacobs in the editorial of the April issue of the journal. "If nothing else, I will at least be forced to develop further my multi-tasking skills."

Now in its tenth year, *EMBO reports* publishes high-quality, short-format articles reporting scientific findings of broad interest and major biological significance in all areas of molecular biology. Since its very beginnings, the journal has fulfilled a unique role combining groundbreaking science with incisive comment on how science and society shape one another in the twenty-first century.

The new Senior Editor is currently at the University of Tampere in Finland, serv-

ing as Academy Professor and Professor of Molecular Biology at its Institute of Medical



HUGO NEVES

Technology. His research focuses on mitochondrial genetics and the biology of ageing and disease. An EMBO Member since 2001, Jacobs was co-awarded the 2004 EU Descartes Prize for Research and is a member of the Finnish Academy of Science and Letters, the British Society of Cell Biology and both the Finnish and UK Genetics Societies.

But he is also a colourful personality, sporting a style quite rare in the world of science. A neutral observer would probably mistake him for a punk rocker rather than a scholar. Has anyone ever seen Howy Jacobs wearing a suit? His "multifaceted personality, which somehow reconciles molecular biology with an enthusiasm for punk rock, viticulture, international politics and a curious obsession with all things Polar" – his self-description – might bring some new and interesting perspectives into the broad range of topics in *EMBO reports*.

◀ Enthusiastic about punk rock and "all things Polar": new *EMBO reports* Senior Editor Howy Jacobs

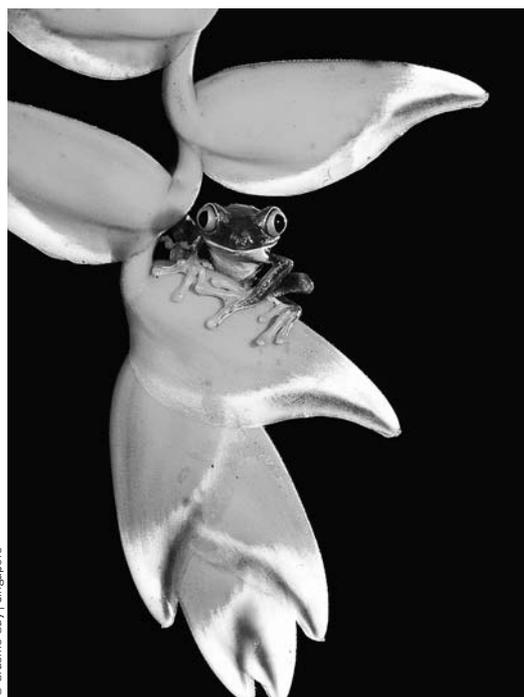
Perfect pictures

Winners of *The EMBO Journal* cover contest 2009

The first prize in the category "Best Non-Scientific Image" went to the portrait of a red-eyed Tree Frog (*Agalychnis callidryas*) on a *Heliconia* flower. The photographer,

Graeme Guy of the Institute of Molecular and Cell Biology in Singapore, has been contributing covers to *The EMBO Journal* for many years. This is the first time one of his images actually

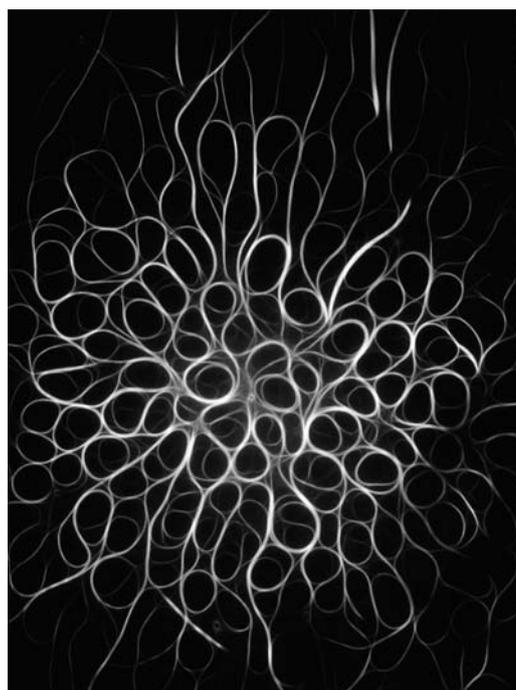
and the jury would like to say thank you to all participants, whose enthusiasm made this year's contest such an enjoyable experience for everyone.



© Graeme Guy | Singapore

won the contest, against the tough competition of more than 700 submissions. In the category "Best Scientific Image", the jury selected an image taken by *Dennis Breitsprecher* of Hannover Medical School for the first prize. The micrograph shows an astonishing degree of regularity in the assembly of actin into looped multi-filament bundles on the surface of polystyrene beads coated with the protein VASP.

A small selection of scientific and non-scientific images that received a honourable mention by the jury will be published on *The EMBO Journal* front covers during the year. The editors



© Dennis Breitsprecher | Hannover, Germany



© Centro de Investigaciones Biológicas | Madrid, Spain

Spanish science goes grande

EMBO Member beneficiary of a national research programme

Manuel Espinosa (fifth from right) and his group at the Centre of Biological Research in Madrid in 2008

Pneumonia, tuberculosis, salmonellosis: infectious disease takes an annual death toll of more than twenty million people, making it the second leading cause of death after cancer. Researchers around the world work feverishly to find out how bacterial infections are spread, how to tackle resistance to antibacterial products and develop targets to fight infections. An ambitious project was recently launched in Spain thanks to the support of the Spanish government. The Ministry of Education and Science set up a programme called *Consolider* aiming to consolidate research efforts, build larger teams and thus increase the cooperation between bioscientists – counteracting the high fractioning of research teams, which is one of the main problems in Spanish research and development.

Last December, EMBO Member *Manuel Espinosa* from the Centre of Biological Research in Madrid was selected as one of the beneficiaries of this nation-wide initiative. He now coordinates five teams based in various institutes. "Our initiative was one of only three biology projects that reached the final stage," commented the project coordinator. The long waiting times have proven worthwhile: the applicants received 3.6 million euro to build an interdisciplinary team, invest in state-of-the-art technology and set up a knowledge network. "We are very proud of winning the tender in a highly competitive environment," said Espinosa. Ensuring a smooth workflow among some forty researchers based in three different corners of Spain is challenging, but "we get along very well".

The team coordinated by Espinosa is working on deciphering the connections and networks between plasmids and chromosomes of pathogenic bacteria. The participating groups have jointly tackled complementary aspects of plasmids biology before. Past experience makes it easier to take a step further and work on an integrative view of the interactions between plasmids and chromosomes. "If we grasp the idea of how pathogenic bacteria behave, we'll be able to combat infectious diseases more efficiently," predicted the molecular biologist. A few pharma enterprises are watching closely how the project progresses. Another desired effect of *Consolider* is to strengthen the transfer of knowledge and close the gap between academic research and industry.

AWARDS OF EXCELLENCE

EMBO Members

Louis Jeantet Prize for Medicine 2009

Louis Jeantet Foundation
The 2009 Louis Jeantet Prize for Medicine was awarded to the Swiss-American biologist **Michael N. Hall** and to the British doctor and cell biologist **Peter J. Ratcliffe**. The prize-winners are conducting fundamental biological research with significant implications for medicine. Michael N. Hall was awarded the prize for his pioneering research on fundamental mechanisms in the control of cell growth. Peter J. Ratcliffe was awarded the Prize for his pioneering research on the mechanisms by which cells detect levels of available oxygen.

French Academy of Sciences

Anne Ephrussi was elected to the French Academy of Sciences in December 2008. The academy, founded 1666 by Louis XIV, brings together the most eminent French and foreign scholars to form associations, playing an active role in the development of international scientific relations.

Genetics Society Medal

Genetic Society (UK)
Laurence D. Hurst from the University of Bath, UK, received this medal in recognition of his outstanding research contributions to genetics. The Genetics Society UK brings together 2,000 members including teachers, researchers and students as well as industry and publishing representatives.

Free University of Brussels (Belgium)

Pierre Chambon has been granted the title Doctor Honoris Causa of the Faculty of Medicine at the Free University of Brussels in December 2008.

2009 Aminoff Prize

Royal Swedish Academy of Sciences
Gerard Bricogne from the non-profit company Global Phasing Ltd, UK, received the 2009 Aminoff Prize along with **George Sheldrick**, for results in theoretical development and methodological implementation in crystallography. The 2009 laureates have both contributed to make the methods of crystallography more powerful and generally applicable.

Meyenburg Cancer Research Award 2008

German Cancer Research Center
The Meyenburg Award 2008 was presented to the Dutch stem cell researcher **Hans Clevers**. The biologist receives the prize for the elucidation of a biological pathway that plays a central role in both stem cells and cancer cells. This distinction, currently worth 50,000 euro, has been awarded for outstanding achievements in cancer research annually since 1981 and is one of the best-funded scientific awards in Germany.

Frontiers of Knowledge Award in Biomedicine

Banco Bilbao Vizcaya Argentaria (BBVA) Foundation (Spain)
The first BBVA Foundation Frontiers of Knowledge Award in Biomedicine has gone to cancer researcher **Joan Massagué i Solé**. His research has elucidated fundamental processes that control cell division and identified genes playing a key role in tumor generation and metastasis. The BBVA awards, organized in partnership with Spain's National Research Council, are granted in eight categories worth 400,000 euro each.

EMBO Young Investigators

Walther-Flemming Medal

German Cell Biology Society
Holger Gerhardt, head of Vascular Biology Laboratory at Cancer Research UK, won this medal in recognition of his recent scientific achievements. The Walther-Flemming Medal is awarded to scientists not older than 38 for outstanding research in all fields of cell biology.

Wellcome Trust

International Senior Research Fellowship

Wellcome Trust (UK)
In 2008, **Štěpánka Vanáčová** from the National Centre for Biomolecular Research at the Masaryk University in Brno, Czech Republic, was awarded the Wellcome Trust International Senior Research Fellowship. This scheme supports outstanding researchers, either medically qualified or science graduates, who wish to establish a research career in an academic institution in selected European countries – Croatia, Czech Republic, Estonia, Hungary, Poland, Slovakian Republic and Slovenia.

EVENTS

EMBO Members

EMBO Member **Cayetano González** is organizing an international meeting on **Modelling Cancer in Drosophila** in Barcelona, Spain from 14–16 September 2009. This conference presents a forum for the discussion of cutting-edge models of tumorigenesis in *Drosophila* and their use in high-throughput screening of small molecule inhibitors that can be developed to combat human cancer. www.irbbarcelona.org/biomed/modellingcancer

The 21st annual **Pezcoller Symposium, Unconventional Therapeutic Targets in Cancer** will be held in Trento, Italy, on 11–13 June 2009. The Symposium will focus on identifying new targets for anticancer drug action and utilizing new concepts and methods for drug design and development. www.pezcoller.it/program.htm

EMBO Member **Michael Reth** is organizing the 15th international FEBS Summer School in Hvar, Croatia from 5–12 September 2009. The Summer School **Immune System: Genes, Receptors and Regulation** will give students a deeper insight into the basic knowledge and novel development of immunology. Applicants should be experienced PhD students within at least two years of their PhD project or early postdocs. www.febs-hvar2009.org

A GOOD READ – PUBLICATIONS FROM THE EMBO COMMUNITY

articles

Structural insights into the Cyclin T1–Tat–TAR RNA transcription activation complex from EIAV
Kanchan Anand (EMBO Fellow) *et al.*
Nature Structural & Molecular Biology **15**: 1287–1292 (01 December 2008)

Olfactory behavior and physiology are disrupted in prion protein knockout mice
Claire E. Le Pichon (EMBO Fellow) *et al.*
Nature Neuroscience **12**: 60–69 (01 January 2009)

Structure of the motor subunit of type I restriction-modification complex EcoR124I
Mikalai Lapkouski (EMBO Fellow) *et al.*
Nature Structural & Molecular Biology **16**: 94–95 (01 January 2009)

Stimulation of the insulin/mTOR pathway delays cone death in a mouse model of retinitis pigmentosa
Claudio Punzo (EMBO Fellow) *et al.*
Nature Neuroscience **12**: 44–52 (01 January 2009)

Bidirectional promoters generate pervasive transcription in yeast
Jurgi Camblong, Elisa Guffanti (EMBO Fellows) *et al.*
Nature **457**: 1033–1037 (25 January 2009)

Bi-stable neural state switches
Ofer Yizhar (EMBO Fellow) *et al.*
Nature Neuroscience **12**: 229–234 (01 February 2009)

IL-6 and Stat3 are required for survival of intestinal epithelial cells and development of colitis-associated cancer
Janos Terzic (EMBO Fellow) *et al.*
Cancer Cell **15(2)**: 103–113 (3 February 2009)

Life without a wall or division machine in *Bacillus subtilis*
P. Domínguez-Cuevas (EMBO Fellow) *et al.*
Nature **457**: 849–853 (12 February 2009)

Neisseria meningitidis recruits factor H using protein mimicry of host carbohydrates
Elisabeth Kugelberg (EMBO Fellow) *et al.*
Nature (advanced online publication)
doi: 10.1038/nature07769 (18 February 2009)

Bridging high-throughput genetic and transcriptional data reveals cellular responses to alpha-synuclein toxicity
Esti Yeager-Lotem (EMBO Fellow) *et al.*
Nature Genetics **41**: 316–323 (01 March 2009)

Ab initio construction of a eukaryotic transcriptome by massively parallel mRNA sequencing
Tommy Kaplan (EMBO Fellow) *et al.*
Proceedings of the National Academy of Sciences **106(9)**: 3264–3269 (March 2009)

Phosphorylation-mediated unfolding of a KH domain regulates KSRP localization via 14-3-3 binding
Irene Diaz-Moreno (EMBO Fellow) *et al.*
Nature Structural & Molecular Biology **16**: 238–246 (01 March 2009)

The mechanism of folding of Im7 reveals competition between functional and kinetic evolutionary constraints
Michele Vendruscolo (EMBO Fellow) *et al.*
Nature Structural & Molecular Biology **16**: 318–324 (01 March 2009)

AMPK regulates energy expenditure by modulating NAD1 metabolism and SIRT1 activity
Carles Canto (EMBO Fellow) *et al.*
Nature (advanced online publication)
doi: 10.1038/nature07813 (4 March 2009)

Natural variation in a neural globin tunes oxygen sensing in wild *Caenorhabditis elegans*
Patrick Laurent, Karl Emanuel Busch (EMBO Fellows) *et al.*
Nature (advanced online publication)
doi: 10.1038/nature07820 (4 March 2009)

Distinct transcriptional outputs associated with mono- and dimethylated histone H3 arginine 2
Antonis Kirmizis (EMBO Fellow) *et al.*
Nature Structural & Molecular Biology (advanced online publication)
doi: 10.1038/nsmb.1569 (8 March 2009)

Segmental copy number variation shapes tissue transcriptomes
Henrik Kaessmann (EMBO Young Investigator) *et al.*
Nature Genetics (advanced online publication)
doi: 10.1038/ng.345 (8 March 2009)

ccbe1 is required for embryonic lymphangiogenesis and venous sprouting
Benjamin M Hogan (EMBO Fellow) *et al.*
Nature Genetics (advanced online publication)
doi: 10.1038/ng.321 (15 March 2009)

Traveling waves in developing cerebellar cortex mediated by asymmetrical Purkinje cell connectivity
Alanna J. Watt (EMBO Fellow) *et al.*
Nature Neuroscience (advanced online publication)
doi: 10.1038/nn.2285 (15 March 2009)

Directional Delta and Notch trafficking in Sara endosomes during asymmetric cell division
Maximilian Fürthauer (EMBO Fellow) *et al.*
Nature (advanced online publication)
doi: 10.1038/nature07854 (18 March 2009)

CD27 is a thymic determinant of the balance between interferon- γ - and interleukin 17-producing cd T cell subsets
Bruno Silva-Santos (EMBO Young Investigator) *et al.*
Nature Immunology **10**: 427–436 (01 April 2009)

books

Single Molecule Biology
Alexander Knight (EMBO Fellow)
Elsevier
ISBN-13: 978-0-12-374227-8
(October 2008)

Prediction of Protein Structures, Functions, and Interactions
Janusz M. Bujnicki (EMBO Young Investigator)
John Wiley & Sons
ISBN-10: 0-470-51767-0
(December 2008)

Making Sense of GM
Chris Leaver (EMBO Member)
Published by Sense about Science
Downloadable at www.senseaboutscience.org.uk/index.php/site/project/16 (2009)

DNA and RNA modification enzymes: Structure, Mechanisms, Functions and Evolution
Henri Grosjean (EMBO Member)
Landes BioSciences,
Molecular Biology Intelligence Unit
ISBN 978-1-58706-329-9
Estimated Publication Date: June 2009

EMBO in the news

EL PAIS

In the last few months of 2008, more than 40 articles from European mainstream media reported on EMBO announcements of new Young

Installation Grantees. Leading newspapers such as *El Pais*, *Publico*, *Diario de Noticias* and the radio station *Deutsche Welle-World* picked up the news about the young scientists who were granted EMBO funding to help them build up their research laboratories.

Diário de Notícias

Público

DW-RADIO
DEUTSCHE WELLE

DIE WELT

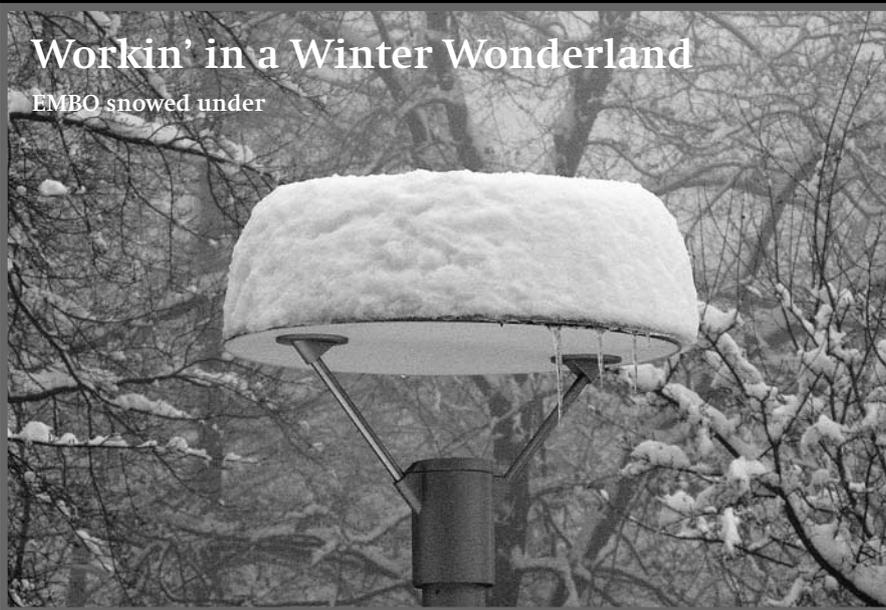
Frankfurter Allgemeine

DER STANDARD

EMBO also received broad coverage for other activities: *Die Frankfurter Allgemeine* in Germany reported on the last EMBL/EMBO Science & Society Conference, *Die Welt* mentioned the winner of the 2008 EMBO Award for Communication in the Life Sciences, and *Der Standard* as well as Austria Presse Agentur commented on *Josef Penninger*, the new EMBO Member from Austria.

Workin' in a Winter Wonderland

EMBO snowed under



No, this is not an image from the Swiss Alps nor a postcard from an Eskimo town: Heidelberg was hit by unusual amounts of snow, which turned EMBO surroundings into a genuine winter wonderland. The storm left as much as a metre of snow, making the walkways around the EMBO building almost impassable – a sight rarely seen in this area.

Many used public transportation due to hazardous driving conditions on the road. Roaring engines and spinning tyres were heard everywhere going back and forth. Some EMBO staff just left their cars for days outside the building until the rain washed away the fluffy blanket of snow. The garden furniture arranged on the side of the EMBO terrace creaked under the weight of the white cover, and the human-like mound on the terrace with an empty beer bottle lying beside it provoked many comments. The doubts were quickly dissipated after our missing staff member finally appeared in the office...



photos by Yvonne Kaul & Martin Cairns

Next issue: The next EMBOencounters issue — Summer 2009 — will be dispatched in July 2009. You can send your contributions/news to: communications@embo.org at any time. The deadline for the summer issue is **29 May 2009**.