

EMBL *etcetera*

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Top award for Reflect team

A team of researchers from EMBL Heidelberg's biocomputing department have won Elsevier's prestigious Grand Challenge competition for Reflect, an automated document annotation service. Their invention beat 70 other ideas to win the competition, which invites researchers to prototype tools dealing with the ever-increasing amount of online life sciences information. Freely available on the web, Reflect pinpoints the proteins and small molecules mentioned on a page – whether it's an abstract, the full-text of a publication, a Wikipedia entry or anything else – and provides pop-ups containing all the annotations you need. See page 2 for more.

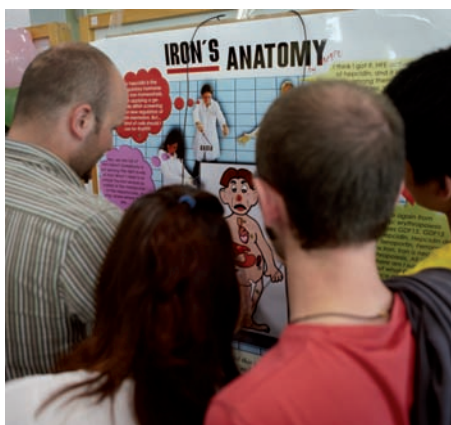
On the buses



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New fashion options for non-drivers

Science, posters, party: Lab Day!



Lab Day on 18 June this year took on a different format, with the scientific sessions in the morning featuring workshops and mini symposia on a variety of subjects suggested by EMBL scientists (see page 3).

The afternoon included the now legendary poster session, with prizes going to the Peperkok, Surrey and Häring groups, the John Kendrew Young Scientist Award Ceremony, a recital by the EMBL music society and the Heidelberg University choir, and the predoc graduation ceremony, followed by a barbecue and a party with live music. All in all it was a busy week, with Lab Day sandwiched between EMBL's fourth Career Day on 17 June and EMBL's 10th birthday party on the evening of 19 June. More pics on page 4.

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Training officers join forces for courses

Reflect upon what you don't understand...

A team of researchers from EMBL Heidelberg's biocomputing department have won Elsevier's prestigious Grand Challenge competition for Reflect, an automated document annotation service.

Their invention beat 70 other ideas to win the competition, which invites researchers to prototype tools dealing with the ever-increasing amount of online life sciences information. The group received the accolade at the Experimental Biology Conference in New Orleans in April. The chair of the judges, Eduard Hovy of the University of Southern California, said that Reflect is "beautifully conceived and nicely executed... it has an exciting vision for extending its ca-

"Reflect annotates proteins or molecules in just one easy step, while still maintaining the original page"

abilities... it provides genuine and immediate improvements in scientific communication and points the way toward interesting new possibilities for the future".

Freely available on the web, Reflect pinpoints the proteins and small molecules mentioned on a web page – whether it's an abstract, the full-text of a publication, a Wikipedia entry or anything else – and provides pop-ups containing all the annotations you need. With Reflect, wasting time searching for unfamiliar proteins and chemicals that crop up in research papers is a thing of the past; with just one click, all the information you need is there.

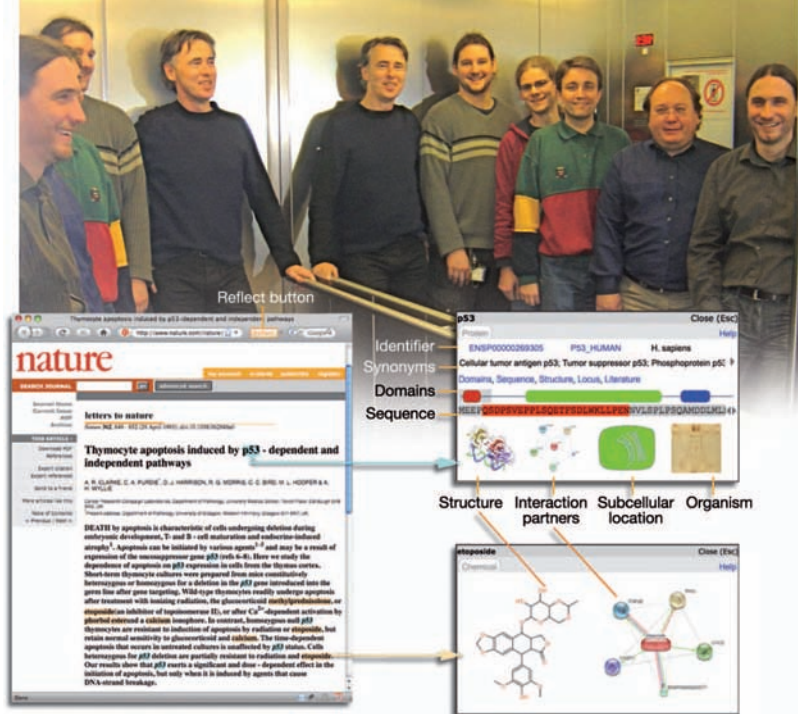
How does it work? Well, Reflect's core

component is a consolidated 'dictionary' of 1.5 million proteins from 373 organisms and 4.3 million small molecules. Simply by pressing a button on your browser, or typing a URL in Reflect's web page, the service will automatically tag the names of proteins and small molecules – blue for proteins and orange for chemicals.

A click on the hyperlink brings up windows displaying the item's domain structure, subcellular localisation, 3D structure, and interaction partners in the case of proteins, and the chemical structure and interaction partners in the case of small molecules, and allows the user to quickly link to more detailed information.

"Reflect annotates proteins or small molecules in just one easy step, while still maintaining the original page," explains Seán O'Donoghue who, along with Lars Jensen, initiated and led the project. "Before, people would have had to go to Google or Uniprot or any number of individual databases to collate the information they needed about unfamiliar terms."

As information on proteins and small molecules can differ according to species, Reflect first scans the page to determine the organism that the text is talking about and



Top: the EMBL members of the Reflect team. Diagram: a *Nature* paper gets the Reflect treatment. The highlighted terms are proteins and small molecules; clicking on 'p53' in the title has brought up a new box displaying information relating to the protein in humans, including synonyms, sequence, subcellular location, interaction partners and 3D structure. The user can also link to related literature with one more click.

tailors the findings accordingly.

"Reflect is useful for anyone who reads life science literature on the web, including researchers, teachers and students. It is already being used by thousands of researchers, even though the method has only just been published," explains Evangelos Pafilis, one of the Schneider group's implementors of Reflect along with trainee Heiko Horn, Michael Kuhn of the Bork Group and Nigel Brown from BioQuant at Heidelberg University.

Documents in PDF, Word, and Excel format can also be 'Reflected' using OnTheFly, an extension to Reflect built by Georgios Pavlopoulos from the Schneider group.

To give Reflect a try, simply go to <http://reflect.ws> and type or paste a URL into the search box at the top, then click 'Reflect'. The method was published in the 9 June issue of *Nature Biotechnology*.

Action plan for admin survey results

At the beginning of the year EMBL launched an online survey in order to assess the efficiency and effectiveness of the personnel, finance, payroll, recruitment and purchase departments. Now the results are available and will be used to continue improving EMBL's services to staff.

"The response rate was 50%, which is excellent for this kind of survey," says Senior Project Officer Anna Efsthathiou.

In broad terms, the results show that the areas in need of improvement are staff induction processes, probation and contract renewal administration, accessing budget information, grant support and use of the SAP Shopping Cart. On the plus side, it seems that EMBL boasts consistently helpful staff across all work areas.

Some action has already been taken, for example the new Web Budget View, the re-

organisation of the HR staff to give unit specific support and the implementation of a shopping cart catalogue. For a more detailed overview of Administration's action plan, visit http://intranet.embl.de/survey_results.pdf.

Administration would like to thank everyone who took the time to complete the survey and for the useful feedback they gave.



Two heads are better than one

EMBL's Gene Expression Unit has two new Joint Heads, Eileen Furlong and Lars Steinmetz, who have already embarked on a makeover which includes changing the unit's name

Lars and Eileen are planning a change of tactic, moving towards high-throughput, global approaches. "The leitmotif 'from genome to biological systems' will stay the same", Lars explains, "but the strategy will change slightly. It will be like zooming out to have a look at the bigger picture."

Eileen is keen to stress that this is evolution rather than revolution. "Our plans for the unit won't come as a surprise to anyone. What we have in mind is a natural progression of the path already pursued by previous coordinators," she says. "The latest group leader appointments have already brought valuable expertise in all the disciplines you need for successful systems biology. What we are doing now is expanding and integrating those efforts. We also intend to continue the recent trend of integrating more chemistry and chemical biology."

"What we are planning also fits well into the greater scheme of biomedical research and medicine beyond the unit and EMBL," Lars adds. "Medicine is moving away from therapies tailored to entire populations. Instead, the trend is now towards personalised treatments, with a shift from reactive medi-

cine aimed at curing symptoms towards preventative approaches that detect and treat diseases at the molecular level."

Basic research and technology developments will be key to implementing such a change, so Lars and Eileen want the unit to engage more with technology development. "The questions we address are always restricted by what technology allows us to do," Eileen points out. "Having engineers and

"It will be like zooming out to look at the bigger picture"
Lars Steinmetz

technology developers as part of the unit facilitates direct exchange with the biologists. This way, new instrumentation can be customised to the researchers' needs, so that research questions can shape technology rather than the other way around."

As for what kinds of technology they'd like to see developed, Lars says: "One priority will certainly be nanotechnology. For exam-



ple, developing custom 'Lab-on-a-Chip' applications that combine all steps of a genomics experiment in one device" – a very useful tool, but one which has so far eluded developers.

Eileen would also like to see synthetic biology approaches that apply engineering principles to biology. "For example, constructing artificial circuits of molecular networks could provide a very powerful mechanism to test hypotheses about the behaviour of network components and dynamics."

Perhaps the most visible change Lars and Eileen are introducing is in the unit's name: it will be re-baptised the Genome Biology Unit, a move that was welcomed in 8 May's SAC meeting. "We felt that Gene Expression was too narrow a description to encompass all the groups, even more so with respect to the kind of people we'd like to recruit," Lars explains. "The new name stresses the focus on genome-wide studies and will make it easier to recruit interdisciplinary staff."

Staff old and new can be sure that under the guidance of its new Heads, their unit will continue to be at the cutting-edge of science.

A new look at Lab Day

There was quite a buzz at this year's Lab Day on 17 June, with a number of very popular scientific sessions in the morning featuring workshops and mini symposia on a variety of subjects suggested by EMBL scientists.

First, group leaders Maja Köhn, Carsten Schultz and Edward Lemke asked 'what can chemistry do for biology?' and presented a new section of the EMBL website devoted to chemical biology (www.embl.de/research/chemistry/index.html), in preparation for the rapidly expanding field eventually becoming an EMBL Centre. Meanwhile, Jan

Korbel and Paul Flicek chaired two sessions demonstrating the many applications of next-generation sequencing – which were packed with the growing community of EMBL scientists using Solexa sequencing – which is also strengthened by activities within the High-throughput Functional Genomics centre.

After the coffee break, EMBL-EBI's Christoph Steinbeck and Paula de Matos gave a tutorial on chemistry and cheminformatics at the EBI, Jan and Paul returned with a mini-symposium on genome variation, and Ramesh Pillai and Dónal O'Carroll from Grenoble and Monterotondo respec-

tively hosted an exciting session on RNA and gene expression.

"The scientific workshops and symposia were very well received, with a full house for every session," says joint head of Genome Biology Eileen Furlong who, together with Ramesh Pillai and EMBL-EBI's Alvis Brazma, organised the day. "Getting people involved in deciding the programme and running the sessions meant that time was devoted to the hottest topics in the lab. We hope that these stimulating sessions will serve as a catalyst for future Lab Days with a new focus and a new spirit. We'd love to hear about your suggestions for next year."

PTO for Lab Day pics!...

That ATC cake didn't last long...



Pictures from Lab Day, 18 June, and 19 June's EMBL birthday party (including a keepsake for Reception Assistant Anna Maria Subosco, below left). Below centre: Graduating this year were Gulcin Cakan Akdogan, Boris Bryk, Iryna Charapitsa, Claudia Chica, Marcello Clerici, Elisa Dultz, Abdullah Kahraman, Esther Lenherr, Eugenio Mancera, Elena Mancini, Holger von Moeller, Gabriele Musumeci, Georgios Pavlopoulos, Evangelia Petsalaki, Sergey Prykhozhiy, Helio Roque, Carolina Tängemo, Lieve Temmerman, Susanne Till, Guillaume Valentin and Rudolf Walczak.



Photos: Hugo Neves (except where indicated)

Bigger, better, more! PhD symposia fill the calendar



The 11th EMBL PhD symposium at EMBL Heidelberg on 29-31 October, 'Puzzles in Biology', will present plenty of questions to ponder and some solutions, too.

The annual event, organised by EMBL's PhD students, will "explore how biologists piece together information from their research and other resources, and use this to identify the one missing piece that completes our understanding of the bigger picture," according to Peter Blattmann, chair of the organising committee. "The symposium is structured so that we learn piece by piece, first focussing on particular biological questions and then building up in complexity to see how these areas come together in understanding bigger puzzles such as the molecular biology of disease."

Confirmed speakers include Leena Peltonen (Wellcome Trust Sanger Institute), Ari Helenius (ETH Zurich) and Stefan Hell (MPI Göttingen). A complete list of speakers and registration pages can be found at www.phdsymposium.embl.org. Registration closes on 15 July, so be sure to secure your seat soon!

In a new initiative called the Heidelberg Forum for Young Life Scientists, PhD students from EMBL Heidelberg are clubbing together with most major graduate programmes from Heidelberg, including those of DKFZ, MPI, ZMBH, HBIIGS and CellNetworks, to arrange a symposium in October.

"It will be a bit like the EMBL PhD symposium, just shorter and with a different topic, but with the same aim: to gather PhD students and other young scientists from Germany and abroad for some interesting talks and discussions," says Iben Møller-Hansen, one of the organising committee.

The symposium will cover a broad range of topics, each institute having a separate session with a theme important to its own research. The EMBL session is entitled 'Through the looking glass: Understanding Molecular Biology through Evolution'. More details are available at <http://forum09.mpimf-heidelberg.mpg.de>.

A similar collaborative effort already in existence between PhD students at EMBL-EBI and those from the Sanger Institute and Cambridge University has just held its third symposium. The SCAMPS (Sanger-EBI-Cambridge PhD) event took place at the university's Robinson College on 23 April and provided an opportunity for students from all the institutes to present their research to an audience of their peers, learn more about research taking place elsewhere in Cambridge and form stronger links and more collaborations within the community.



“To enjoy your science is the most important thing”

EMBL Heidelberg's longest-serving group leader, Dietrich Suck, says goodbye at the end of May. In the 40 years he's been a scientist, EMBL – and science itself – has changed immeasurably...

Planck Institute for Medical Research.

“One day in 1982 the DG, Lennart Philipsson, personally came down and asked me to become a group leader, on the condition that I move up here.”

The rest, as they say, is history – and now Dietrich is saying goodbye to almost three decades at EMBL, having seen many changes along the way.

“When I started, structural biology was a relatively new and difficult field. We'd have to use grams of protein to get a crystal,” he says. “Now you can do everything with a milligram. In the old days, data collection would take weeks or months – I once did a 32-hour shift in Hamburg, because it involved developing films in the dark room and hand-mounting the crystals – but now it takes a minute!”

“Nowadays, we work with much more dif-

time now. It means that you can't just get on with the science.”

It's been the science, rather than any sense of driving ambition, that's kept Dietrich's interest. “I'm not someone who really *sells* science, and I was never very fond of doing grant applications and things,” he admits with a smile. “I know it's a bit old-fashioned to say this, with all the emphasis on competition that there is today, but I was never really interested in that side of things. I do the science, and I really enjoy it, and that's the important thing.”

Dietrich feels there's too much pressure on scientists these days to be seen to ‘succeed’ in the competitive sense. “It seems now that people just count papers instead of looking at the actual work that someone has done. I would advise young scientists to be determined to involve themselves completely to solve a problem.

“Of course you have to write papers and show results in the top journals if possible, but primarily you should really *enjoy* what you do. If you have something interesting, concentrate on it!”

EMBL is, in his own word, “heaven” when it comes to opportunities for scientists. “I love the fact that there's so much independence for group leaders here, even very young ones. You don't find that anywhere else,” he says. “The rather small groups here also means that you have to interact very closely with other people and share equipment, which promotes contact.

“The PhD Programme is great – young people coming from everywhere really contribute to the atmosphere of the place – and for its size, there's hardly any bureaucracy compared to other places. Most of all, EMBL is the only truly international place I know.”

He'll miss EMBL, but is quite content to leave science behind. “I've now had 40 years in science, so that's a good time to end this particular chapter,” he smiles. “Of course I'll keep in touch and drop by for some great lunch now and again, but it's time to take a back seat and let the young people take over!”

“I never really had a concrete plan about how my career should progress. I always thought, let's see what comes along and take opportunities as they arise,” says Dietrich, contemplating his working life halfway through his final month at EMBL. “After all, the most important inventions in science weren't really planned. You should always be aware that something new could be coming up.”

Having said that, though, he certainly never envisaged staying at EMBL for this long. “My first contract was three years but it was only in 1987, when I became joint unit coordinator, that I had an open-ended contract,” he says. “I thought I'd end up going to the university and have the usual career and habilitation and become a professor.”

Dietrich started at EMBL as far back as 1977, when the building wasn't even finished. “I came from the US, having done a postdoc at Purdue University in West Lafayette,” he says. “The structural lab wasn't ready at EMBL so for five years I was in downtown Heidelberg, as a staff scientist in the group of Reuben Lebermann at the Max

Planck Institute for Medical Research. difficult problems and have many more possibilities, of course – but there's not such a sense of achievement when you painstakingly produce your first crystal.”

There have also been changes on the administrative side. “It's hard to imagine now, but when I started, EMBL provided everything. You weren't supposed to get funds from outside,” he recalls. “Nowadays that's a huge part of the work of a group leader. Also, it's not so easy anymore to pursue projects when it's not obvious that they're going to amount to anything.”

Dietrich can appreciate both sides of the coin. “Competition is good – I think the university should also have a system that encourages people to move on frequently – but on the other hand, people have to write so many proposals, and this and all the other administration of funding takes too much

“EMBL is the only truly international place I know”

Dietrich Suck

Raising the roof

The Proteomics Core Facility is going out of its way to offer the best services possible – literally!

The arrival in May of some state-of-the-art new equipment meant Jeroen Krijgsveld's core facility having to take drastic measures; ceiling tiles had to be removed in order to fit the two brand new Bruker mass spectrometers into the lab.

"The new equipment will allow both an increase in throughput and a more detailed characterisation of proteins, allowing identification and quantification on a large scale," says Jeroen, who joined EMBL as a team leader in October last year and took over the running of the Proteomics Core Facility from Thomas Franz in April. "These modern machines can handle complex samples and are ideally suited for the analysis of post-translational modifications, as well as providing more sensitive and reliable results."

As well as offering an improved service to the core facility's existing customers, Jeroen would like to encourage other groups to contact the Core Facility with their biological problems. "Mass spectrometry has many applications above and beyond solving



Jeroen and research technician Sophia Foehr get to grips with the new hardware

structural biology questions," he says. "Just contact us before sending your sample to find out how we can help."

Training officers join forces for courses

Scientific Training Officers at the EBI and EMBL Hamburg have been exploring ways to join forces and collaborate on different projects, having pinpointed areas in which both units have expertise and offer courses.

The first step towards increased collaboration and streamlined efforts was the visit by the EBI Roadshow to EMBL Hamburg in March. Among the 20 participants, mainly

from EMBL Hamburg but also from other institutes on the DESY campus, was one student who came all the way from Cologne for the two-day course.

"Although they were a mixed group of participants with a wide range of abilities and expectations, I think everyone got something

out of the course," said Sanchayita Sen, one of the trainers from the PDBe.

"We hope this will become a regular event," said James Watson, Scientific Training Officer at the EBI.

The roadshow was also an opportunity to discuss potential collaborations together with others members of the Hamburg unit. "Following on from these discussions, we are now putting together a plan for a future course integrating expertise from Hamburg and the EBI, possibly as part of the EBI's hands-on training programme for 2010," says James. The course will start from a dataset of raw diffraction data and teach the students how to interpret this information and build a model of the protein structure. They will then be taken through a range of structural validation and analysis tools to show how the protein's structure can be used to provide biological insights.

"Considering the enthusiasm everybody contributing to this event has shown, we are certain this will be the first of many training collaborative efforts across EMBL," said Vicky Schneider from the EBI.

– Rosemary Wilson



Science on the brain

On March 18-20 EMBL Monterotondo's ELLS (European Learning Laboratory for the Life Sciences) officer Rossana De Lorenzi helped organise a Brain Awareness Week 2009 event at the Stazione Zoologica Anton Dohrn (SZN, below) in Naples. Aimed at teachers, students and the public, the event included seminars, experiments, posters and videos for an in-depth look at the brain and its secrets.

The first day was dedicated to brain development, with scientific seminars about the evolution of the nervous system. The afternoon saw a session on the psychobiology of childhood and on the role of music during early development. Practical demonstrations during the day included staining techniques to analyse brain tissues to detect neuronal damage.

The seminars on day two focussed on brain and behaviour and the mechanism of memory. The first explained the reciprocity between musical notes and the nervous system and was followed by one on mirror neurons, which are activated by the observation of actions performed by another person. The practicals included the observation of squid and the worm *Caenorhabditis elegans*, model organisms for the study of neurons.

The last day focused on neurodegenerative diseases, traumatic brain injury and psychological disorders, with one session examining artworks created by Alzheimer's patients.

Two small robots, a dog and a dinosaur, were the main attraction. Developed by the Scuola Superiore Sant'Anna as part of a project aimed at understanding biological processes using bionics, such models can be used for the diagnosis of neonatal infarction and rehabilitation of children.

"The different ways of communication that coexisted during the event gave the public the chance to approach new and difficult themes from different perspectives," says Rossana.



John Kendrew would have been proud...

An extremely well-attended part of EMBL's labday (see page 4) was the John Kendrew Young Scientist Award Ceremony. Ken Holmes, former Head of Unit at EMBL Hamburg (1975-1977) and close friend and advisor to the late John Kendrew, presented the award to the winner, Julius Brennecke. Formerly an EMBL predoc in the Cohen Group (2001-2006), Julius is now group leader at the Institute

of Molecular Biotechnology in Vienna.

Giulio Superti-Furga, chair of the Alumni Association board and former EMBL team leader in the Developmental Biology Unit (1991-2004) hosted the ceremony. Now Director of the Centre for Molecular Medicine in Vienna, Giulio encouraged EMBL staff to stay in touch with the "formidable brain pool of alumni

out there by joining the alumni parties, local chapter meetings and reunions, and to use the alumni members directory and wiki to help in networking and making career choices." Both services are accessible to staff via the EMBL intranet. In addition, Giulio reminded staff to provide the Association with ideas about new alumni initiatives they feel would be of benefit to them.

John Kendrew Young Scientist Award winner Julius Brennecke answers questions about his career since EMBL, his scientific inspirations and his personal achievements

Tell us about your career path after leaving EMBL.

I've always been thrilled by the idea of living in New York, so after completing my PhD at EMBL in 2006, I worked as a post-doc at the Rockefeller University in Manhattan. Once there, though, I realised that my research interests didn't tie in with the focus of the lab, so after three months I decided to leave again.

After visiting Greg Hannon's lab at the Cold Spring Harbor Laboratory (CSHL), I knew instinctively that this was the place for me. In fact, the next two years proved to be the most productive of my career, especially after we discovered the patterns in the piRNA pathway. This also helped compensate for my rather isolated existence in a small room on campus overlooking the harbour and without a car!

In late 2007, with Greg's approval, I moved to the Norbert Perrimon lab in Boston for a year, but continued to work with a predoc and diploma student from his lab. We decided to move back to Europe after the birth of my son in 2008.

What has been the highlight of your career so far?

Since my predoc days I've been exploring the world of small regulatory RNA pathways in flies using genetics and bioinformatics; we were mostly interested in microRNAs, their regulatory targets and



Julius during his field research in the Galapagos

their *in vivo* functions. During my post-doc years I focused predominantly on deep sequencing, working on the other two classes of small RNAs in *Drosophila*: the siRNAs and the piRNAs.

This essentially yielded a big puzzle, which we assembled into distinct modules. By studying the piRNAs, we discovered that the past 30 years of fly genetics on transposon control could be molecularly explained with features of our piRNA biogenesis system. This was probably the most significant finding in my career. We essentially discovered the backbone of a transposon silencing system in flies which acts like an RNA based genome immune system.

At the award ceremony you dedicated your prize to Alex Stark.

My collaboration with Alex dates back to

the early EMBL days. We realised that in the field of small RNAs, the combination of genetics and molecular biology on the one hand and bioinformatics with strict statistics on the other is extremely powerful. The entire success of our work on miRNAs at EMBL was based on this synergy which we tried to keep up after leaving. Alex explored the genomics side, while I generated the piRNA and siRNA data for which I needed strong computational support. The computational work on piRNAs was done by the two computer scientists, Alex and Ravi Sachidanandam at the CSHL. They deserve equal credit.

In my speech, I dedicated half of the prize to Alex to show how much of an impact he had on my career. Interestingly, his lab is now only 50m away from my research group.

How was your time at EMBL, and how was it to come back after three years?

Coming from a German university, I really appreciated the open culture at EMBL, where you could speak frankly to everyone, including group leaders; where people lit their cigarettes with portable bunsen burners and the elevator was covered with posters and ads. It was – and still is – a really cool place; even the Operon and the seminars have a special feeling about them. It was really exciting to be here and to absorb the atmosphere.

Having seen some of the major research institutions in the US, I am certain that this place is unique and very special, though it is hard to pinpoint what really makes it so. I had a great day at the award ceremony and now understand more than before how much I owe EMBL and what a privilege it was to be here.

Thirteen at the table

The Alumni Association held their thirteenth board meeting on 11 May at EMBL Heidelberg. This was the first meeting to be chaired by Giulio Superti-Furga, who made it all the sweeter with an original *Sachertorte* from Vienna!

A major item for discussion was the future of the John Kendrew Young Scientist Award. The board are very proud of the extremely high standard of applications this award has attracted since its launch in 2007, and have received praise and positive responses from EMBL staff and alumni for their support of young scientists. They unanimously agreed to offer the award beyond the three years for which it was generously funded by the EMBL Pensioner's Association through the efforts of former Head of Personnel

Konrad Müller (1975-1995). To this end, they will launch a major fundraising campaign in autumn, dedicated to securing the future of the award. More information on this will be sent to alumni in due course.

Also of great importance was the planning for the alumni reunion of 2010, scheduled for 12-13 March. The board drafted a very attractive two-day programme and will contact alumni with invitations in the next few months.



The board were delighted to see a steep increase in membership; 96 former staff joined in the last six months, of which 15 were faculty. The largest body of alumni to join this time came from the Structural and Computational Biology Unit. To continue raising the profile of the association with EMBL staff, especially at the outstations, the board will hold the next meeting on 14 December at EMBL Hamburg.

Share the knowledge

Want to help school leavers in your country pursue a career in science? The European Learning Laboratory for the Life Sciences (ELLS) has been helping alumni do just that.

Barely had ELLS been established at EMBL in 2003 when the first alumni request came from the University of Milan, asking to share know-how and help set up a similar education facility in Italy. A year later, CusMiBio was launched and has now become a well-established education and outreach facility, providing thousands of Italian students and teachers opportunities to get hands-on experience and learn about cutting-edge science.

In the meantime, ELLS staff have dealt with additional requests from alumni in Greece, Portugal, Spain and the Ukraine, where they have helped set up similar programmes.

As part of the EMBL International Centre for Advanced Training (EICAT), ELLS plans to expand these activities further. Their first focus is to identify alumni in the Scandinavian countries who would like to establish similar education projects, though they remain open to requests from all countries. Visit www.embl.org/ells.



A weekend in Greece

EMBL alumni in Greece focussed on encouraging young people to pursue scientific careers when they met for a weekend break in Dilofo on 13-15 June. Former EMBL pre-doc Haralabia Boleti presented the activities of SET-Routes and ELLS as a successful model, and this and the experiences in schools of other participating alumni inspired the local chapter to support an organised network of students and teachers. They'll prepare scientific presentations and activities to give classes a chance to get hands-on, and this year the focus will be on evolution.

A second topic of discussion was the development of the Greek section of the alumni wiki (www.embl.org/alumni/wiki) to help EMBL staff and alumni considering a move to Greece. Text was drafted and added to these pages after the meeting. An editor for this section is yet to be identified, and the local chapter organiser and board

member Anastasia Politou (former EMBL postdoc, 1991-1995) will be contacting alumni for this purpose.

The next local chapter meeting in Greece will take place in November during the annual meeting of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB).

Please mark your diaries:

- **11 July:** German Local Chapter meeting at EMBL summer party, HD.
- **11 September:** Application and nomination deadline, John Kendrew Young Scientist Award 2010.
- **2 October:** local chapter meeting at the University of Porto, Portugal.
- **14-15 December:** 14th Alumni Association board meeting, EMBL Hamburg. E-mail alumni@embl.org by 26 November with any issues you would like the Board to consider.
- **12-13 March 2010:** Alumni Reunion.

We want to hear from you! Tell us about your personal or scientific achievements, an interesting event in which you are involved or give us feedback on alumni matters at alumni@embl.org.

On the buses

Monday 4 May was a great day for EMBL Heidelberg; for the first time in history, public transport users were able to take the bus all the way to EMBL's door.

For years, non-drivers had to trek across the Max Planck campus in all weathers to catch the hourly downtown service. Now, though, EMBL boasts its own bus stop and a six-times-a-day service to supplement the existing 39 route to Königstuhl.

"Before, I always had to wear flat shoes or bring my sneakers with me, because I never knew when I would have to run for the bus," enthuses Maria Pia Becker from the Director General's Office (right). "Now I can wear high heels to work!"

"It beats having to walk across Max Planck," agrees Adrian Neal of the Schultz group, "though I don't know if it will really improve the overcrowding on the 39, because the new buses are very early and unless you want to get to EMBL before 9am you would still have to take the other ones."

However, some users still feel there's room for improvement. "My biggest complaint was never the walk across Max Planck but the infrequency of the buses throughout the day, which means if you have a dentist appointment or something, you lose half a morning of work," says another user. "The buses after 6.15pm are just as packed as they used to be, as people work late and there's



Photo: Hugo Neves

still only one bus an hour after that time."

Administration and the Staff Association are still looking at ways to improve the public transport possibilities to and from EMBL with a view to subsidising season tickets for staff.

First Indian users benefit from BM14

Just a few months after the sealing of an agreement with the Indian government for a part share in the ESRF's beamline BM14, Indian users are already benefitting from beam time.

Hosted by EMBL Grenoble Staff Scientist Hassan Belrhali, three Bangalore-based researchers (pictured) enjoyed four days of

beam time at the end of April after India joined a consortium to fund the bending magnet beamline. More visits from scientists from other parts of India are already scheduled for June and July.

For BM14, 2009 is a transition year in which the Medical Research Council (MRC), EMBL and India share the beam

time. When the MRC contract finishes, it is hoped that India will take on a larger ratio in a new consortium with EMBL and ESRF for an initial period of five years starting in 2010.

"This first visit was a very intense four days of experiments and cultural exchanges," says Hassan. "The visitors were very happy about the outcome – three *ab initio* structures and several enzyme inhibitor complexes of medical importance – and were all looking forward to coming back."

"Dedicated access to the BM14 beamline at ESRF will enhance the scope and breadth of the problems in biochemistry that we can address in India," says Dr Nair.



Left: Deepak Nair from the National Centre for Biological Sciences, and Krishan Gopal and Koustav Maity from the Indian Institute of Science, all in Bangalore, enjoy their spring visit to Grenoble

Australia's associate membership coming along... in leaps and bounds!

The Land Down Under officially became EMBL's first associate member state on 1 March last year, and now vice-chancellor of Monash University Richard Larkins, who visited EMBL Heidelberg in March, has been chosen to chair the official EMBL Australia Council, starting in July.

There's also a new

website, www.emblaustralia.org, and it was announced in May that the Australian government will provide \$8 million over four years to support the establishment of the new new EMBL Australia facility. The Australian Regenerative Medicine Institute (ARMI) opened in Melbourne in April and will be the headquarters of EMBL Australia.

Here in Europe, the first faculty position has been filled by Marcus Heisler in the Developmental Biology Unit, and the second will be selected soon.

First science and society event for Hamburg

EMBL Hamburg held its first Science and Society event on 15 June when Joachim Mnich, head of Research at neighbouring DESY, talked about the Large Hadron Collider Project at CERN (pictured) to an audience of about 40 people.

Hamburg's involvement began with a visit by EMBL Heidelberg's Science & Society Programme Manager, Halldór Stefánsson, on 13 January. "Halldór gave a seminar about the programme and had a brainstorming session with the newly founded Science and Society committee to discuss

possible ideas and plans for Hamburg," says Rosemary Wilson, EMBL Hamburg's Scientific Training Officer. "We hope to start with two talks per year and attract scientists and non-scientists alike from across the DESY campus and neighbouring institutes."

"I'm delighted that Hamburg is getting involved in the programme," says Halldór. "It's very important that such activities can benefit the outstations."

EMBL Hamburg's Science and Society committee is now planning the next event.

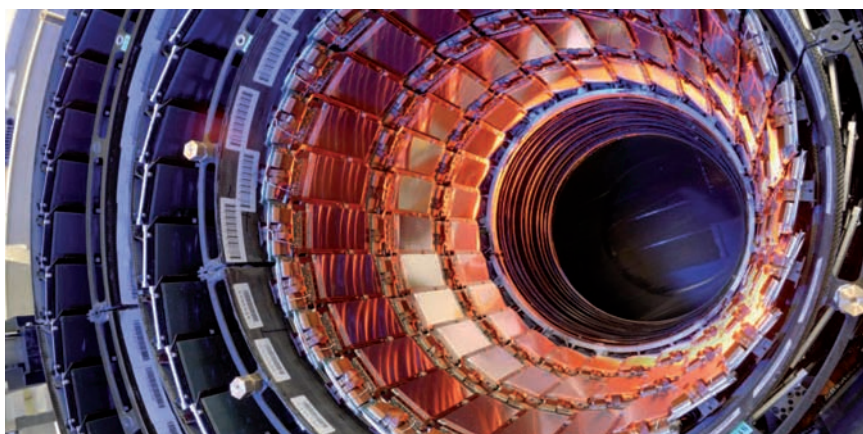


Photo: CERN

INSTRUCT and ELIXIR move forward

Two of six biomedical and life sciences projects with EMBL participants that are part of the European Strategic Forum on Research Infrastructures (ESFRI) Roadmap, INSTRUCT and ELIXIR, have both held important meetings recently.

The first INSTRUCT (Integrated Structural Biology Infrastructure) annual meeting took place in Florence on 29-30 April. 130 participants from 19 countries, including scientists, managers and government officials, discussed the work of the first year of the preparatory phase of the project and the plans for the future. EMBL's Structural Biology units in Grenoble, Heidelberg and Hamburg comprise one of the core partners of INSTRUCT.

The first day started with updates from the work packages covering the legal and financial planning, the access rules to infrastructures and building facilities and data management, before moving onto updates from the scientific working groups. Day two continued with several talks outlining a number of feasibility studies which are being carried out within the framework of INSTRUCT to address bottlenecks in existing

methodologies and technologies and to evaluate potential solutions. INSTRUCT will now enter the second project year, with important requirements to make decisions on supported activities and partnerships.

ELIXIR (European Life Sciences Infrastructure for Biological Information) had its steering and stakeholder meeting at the University of Copenhagen, Denmark on 19-20 May. ELIXIR has 32 partners in 13 member states and aims to construct a sustainable infrastructure for biological information in Europe, supporting life science research and its translation to medicine, the environment, industry and society.

In July the project will enter its 'documentation and negotiation' phase, during which an International Consortium Agreement will be developed and funding will be defined. The meeting recognised that coordination and prioritisation, as well as stable funding, is needed for many of the data resources provided by the partners.

"It is significant that bio-medical projects are part of the ESFRI Roadmap, as this is the first time that it has been recognised at this level that biology needs infrastructures in

Biology goes green

As key molecules tend to have limited availability, recycling is important. Now, the Molecular Medicine Partnership Unit (MMPU) of EMBL and Heidelberg University has uncovered the first step in the recycling of a crucial molecular tag that ensures correct translation, helping protect against genetic diseases.

During translation from gene to protein, control mechanisms check for mistakes. One, nonsense-mediated decay (NMD), is based on the molecular tag exon-junction complex (EJC), which indicates whether an RNA is faulty, potentially dangerous or should be degraded. Overall, a cell would need to mark around 400,000 sites with EJCs, but it only has 10,000 – so EJCs must be broken down as soon as possible and re-used. The MMPU researchers have discovered that a protein, PYM, is responsible for the disassembly and recycling of EJCs.

"It was assumed that ribosomes, which carry out protein assembly, simply iron out the EJCs as they pass," says EMBL's Niels Gehring, who carried out the research, published in the 1 May issue of *Cell*. "Now we see that without PYM, EJC disassembly is impaired."

PYM could also ensure that EJCs are not removed too early, which would compromise NMD; in turn, this would affect how diseases such as thalassaemia and cystic fibrosis manifest themselves. "Ultimately we would like to find ways to modulate NMD pharmacologically to influence the development of genetic diseases," says Matthias Hentze, EMBL's associate director, whose group works with that of Andreas Kulozik at the University Clinic Heidelberg in the MMPU.

the same way that the physical sciences do," says EMBL-EBI's Andrew Lyall, ELIXIR's Project Manager. "The nature of biological research is changing, thanks to the availability of high-throughput technologies such as next-generation sequencing. Rather than continuing to be an activity engaged in by individuals and small groups, it is becoming one in which large coordinated projects will make much more significant contributions."

www.instruct-fp7.eu

www.elixir-europe.org

Revealed: the protein that makes phosphate chains in yeast

Researchers at EMBL Heidelberg have become the first to uncover how polyphosphate – a long chain of phosphate which serves a multitude of purposes, including energy storage, stress response and bone calcification – is assembled in eukaryotes.

Klaus Scheffzek and his group, who carried out the research at EMBL in collaboration with the Département de Biochimie at the Université de Lausanne, Switzerland and others, have shown in yeast that a protein called Vtc4p is responsible for the production of polyphosphate, a molecular ‘jack-of-all trades’ which is found in all life forms and serves a multitude of purposes. Vtc4p is part of a protein complex, vacuolar transporter chaperone complex (VTC), that is usually found in the membranes of vacuoles

– pouches in which cells store molecules for later use, transport or destruction.

“Vtc4p is partly embedded in the membrane and has a ‘tail’ hanging into the cell, which removes a phosphate molecule from ATP, an energy carrier in the cell,” says Klaus. “Vtc4p uses the energy that is released by that cleavage to add the newly-acquired phosphate to a growing chain.” Since the rest of Vtc4 straddles the membrane, the scientists suspect this protein probably transfers the polyphosphate chain to the vacuole as it produces it.

The researchers determined Vtc4p’s function by looking at its 3D structure. “This study emphasises the importance of structural biology not just to show what mole-

cules look like and how they work but also what that function is,” says Michael Hothorn from the Scheffzek group at EMBL, who is presently at the Salk Institute for Biological Studies in California.

The study, published on 24 April in *Science*, has a wide range of potential implications, as polyphosphate is a ubiquitous, multi-tasking molecule with many different functions. Although Vtc4p is not present in plants, polyphosphate is important for growth, and the scientists suspect Vtc4p could play an important role in making it available to plants that have fungi living in their roots. The research could also pave the way for new treatments for diseases such as sleeping sickness, as the parasites that cause them need polyphosphate chains to survive.

The promise of medicine...and the ethics of vampires

In recognition of Cambridge University’s 800th birthday this year, the biology of ageing was the theme of the third annual EMBL-EBI Science and Society Symposium on 8 May at the university’s Fitzwilliam College. More than 70 EMBL-EBI staff members, academics from the university and several research organisations and members of the public attended the pre-oc-organised event.

Over the course of the afternoon, scientists and sociologists surveyed the historical problems and scientific possibilities presented by the extension of human life. David Gems from the Institute of Health Ageing at UCL presented the goals of ageing research, including the ethics of vampire immortality. John Harris from the University of Manchester gave a philosopher’s perspective, while Tom Kirkwood of the Institute for Ageing and Health in Newcastle gave an overview of his institute’s work. Cambridge University’s Richard Smith concluded the presentation session using past demographics to predict the future impact of extended lifespans.

The four perspectives were drawn together in a panel session, where the four speakers agreed that in the end, despite great scientific advances over the past 50



years (as well as significantly increased life expectancies), we still know relatively little about the underlying biological process of ageing. Tom Kirkwood advocated a programme of accelerated research into the fundamental causes of ageing, and – perhaps more importantly – to increase awareness of the rapidly-growing elderly demographic.

For the first time, the event was broadcast to an external audience by providing a live video stream of the talks. Like the main event, the new online component was deemed a great success: “We had 120 total viewers and an average of 20 people watching at any given time,” said organising committee member Michele Mattioni. “We would definitely be in favour of the use of video-streaming for other EMBL and EBI events.”

For those who missed the event, video recordings of the symposium are available online at <http://tinyurl.com/mortal-immortal>. – Louisa Wright

Keep on running

26 April saw several EMBLers achieve great results in the Heidelberg Halbmarathon, a hilly course considered to be the most difficult of its kind in Germany. Victoria McParland, technician in Maja Köhn’s group, finished in second place in the overall women’s competition with

a time of 1:26 – the second fastest time ever run by a woman on the course – and IT’s Matthias Helmling (left) came 20th out of more than 3,500 starters. Additional runners included Halldór Stefánsson, Julien



Photos: Ann-Marie Lawrence

Gagneur, Chad Davis, Maria Hondele, Matthias Hentze, Cathryn Gould – who ran a personal best of 1:38:30 – and Cellzome staff Mikhail Savitski, Andreas Hoefert and Vincent Wolowski.

“I was really pleased with the race and I really enjoyed it, because although it’s a tough course I actually like running up hills!” says Victoria (right). “The atmosphere after an event like this is always great, too.”



Victoria, Cathryn, Matthias Helmling and the three Cellzomers train informally together for events such as this one and the upcoming Heidelbergman Triathlon. If you’d like to join them, e-mail helmling@embl.de to be added to the mailing list.

Framework Agreement signed with Heidelberg University

On 4 May EMBL's Director General Iain Mattaj and the Rector of Heidelberg University, Professor Bernhard Eitel, signed a Framework Agreement to formalise scientific cooperations between the two institutes.

While formal collaborations between the university and EMBL have long been in existence – the Molecular Medicine Partner-

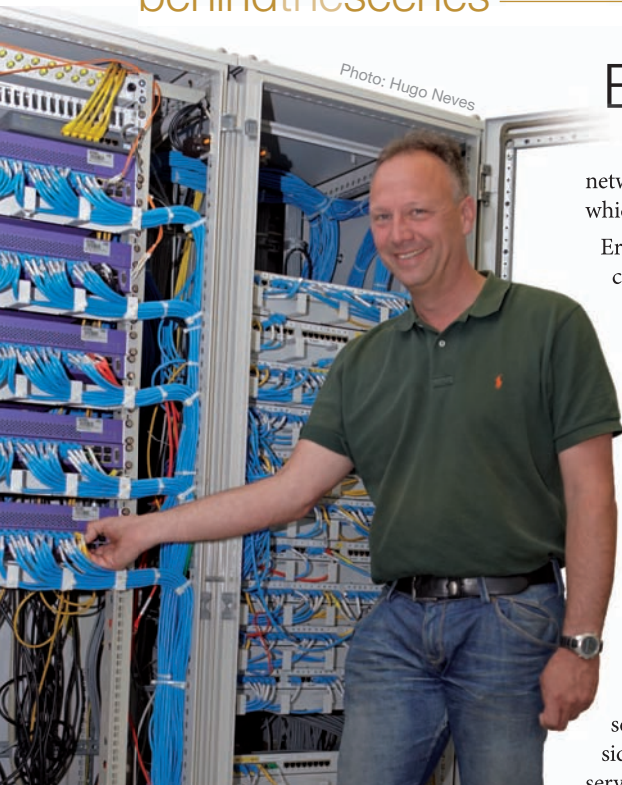
ship Unit (MMPU), the Chemical Biology core facility operated together with DKFZ and the joint awarding of PhDs from both institutes, for example – the agreement will lay down conditions for existing and future scientific collaborations and help continue and build upon the links between the two.

Interdisciplinary and interdepartmental,

the agreement will apply to partnerships, the advanced training of PhD students and other formal collaborations on an institutional level.

Iain and Rector Eitel will meet at least once a year to exchange information about existing projects and, when applicable, initiate new ones.

behindthescenes



EMBL's knight in shining armour

network against the outside world – and which protects us from each other!”

Erich says EMBL is a very special place to carry out such a task. “If I talk to my friends in industry, it's really different. EMBL is unique in that we always have the budget to be at the front edge of technology, and that's superb. In industry, you invest in a certain hardware, and then you have to live with it for a long, long time. Here we can always move to the latest hardware in a pretty short time.”

But he admits there's a downside. “In industry, they're really frightened of intruders in their network, so they have a complete lock-down. At EMBL, we have to guarantee that our scientists' servers can access the network from outside. But if you open a connection to a server, you always risk intruders trying to attack. I watch it on the firewall: we get attacked daily, hundreds and thousands of times. It's very, very difficult to have security

“EMBL gets attacked daily – hundreds and thousands of times”

coverage over the whole thing, but still have so many possibilities for scientists to be able to communicate with their colleagues worldwide, and offer their services worldwide.”

Whether it's a new building going up or a lab or office being remodelled, Erich is sure to be called upon. “I'm always involved at two stages: in planning the layout for the network – where the cables will run, how many outlets are needed where, that kind of thing – and then once the building work is

all done I'm involved in making things go live.”

For the Advanced Training Centre (ATC), the planning stage started about two-and-a-half years ago. “We have to make sure everything is connected to one data room in the basement: all the computers, the card reading machines in the canteen and the transmitters for the wireless networks,” he explains. “That was the greatest challenge – there will be two wireless networks, one for staff and another for guests, and that throws up lots of security issues. When EMBL employees connect to wireless, they should get into our normal network, but guests should stay in an extranet, outside EMBL. We have to have careful filters, to ensure that they only visit proper destinations.”

While building work at the ATC continues, Erich is already moving on. “For us, the ATC work is mainly over. There'll be another peak from August to October, when it gets filled with people and goes live, but I'm already focussing on the next project – the new location of the computer centre. This is really a much bigger issue for us, because we have to change the whole network backbone structure in order to move.”

Alongside all that, it's business as usual: “Adding and updating software, adding services by the scientists, working on firewall routes, connecting new machines, monitoring the manufacturers to see how we can move forwards... I do lots of things in the background, without anyone noticing what's going on,” Erich says, and he's happy to keep it that way. “A good day is when we have no major failures – which is actually about 90% of the time. But,” he smiles, “it's always nice if I go home and nobody calls.”

– Sonia Furtado



Dr. Helen Louise Francis-Lang

It is with sadness that we announce the death of Helen Francis-Lang on 20 March 2009 after an illness fought until the end with courage.

Helen did her PhD in Roberto Di Lauro's group at EMBL Heidelberg from 1988-1991. She went on to have an outstanding career, first working as a post-doc in Oxford (Dr. D. Ish-Horowitz) and then at the RNA Center at Santa Cruz, California (Prof. B. Sullivan) before entering into biotechnology. She first worked at Exelixis, where her projects included organising the *Drosophila* mutant bank and finding disease target candidates. In addition to setting up a molecular biology station on the Galapagos Islands to protect spiny lobsters, Helen held a key position in Affymetrix before joining Nodality as an associate director, where she patented several novel peptides modifying key pathways involved in cancer, as well as an invention for methods for diagnosis, prognosis and determining methods of treatment.

We all enjoyed her openness and cheerful personality, and valued her scientific advice and support. Helen was a lively, enthusiastic and intelligent scientist and a loyal and loving friend. She was lots of fun and lived life to the full. We will miss her.

– *Melanie Price, Maria Polycarpou-Schwarz*

Registration is now open for the following **EBI hands-on bioinformatics training courses** to help you make the most of your data: 'A dip into EBI resources: understanding your data' will be held from 19-22 October (registration deadline 21 September) and the joint EBI/Wellcome Trust proteomics workshop will be held on 9-13 November (registration deadline 24 July). See www.ebi.ac.uk/training/hands-on for programme details and to register.

On 26 June EMBL, the Unit of Virus-Host Cell Interactions partners EMBL, CNRS and the Université Joseph Fourier in Grenoble will meet to form a **Unité Mixte Internationale (UMI)**. EMBL provides the 'international' part of this joint research unit, only the fourth of its kind in France.

Arnold Munnich of the Hôpital Necker-Enfants Malades in Paris, who's also **science advisor to president Sarkozy**, paid a visit to EMBL Heidelberg on 15 April and gave a Distinguished Visitor Lecture on 'Advances in human genetics: is there any benefits for patients?'. He also en-

joyed a tour of the laboratory and met some PhD students.

In 2009 EMBL and Marie Curie Actions will co-fund **up to 20 EMBL Interdisciplinary postdocs (EIPODs)**. Successful candidates will pursue interdisciplinary projects, transferring techniques to a new context or connecting scientific fields that are usually separate. The call for applications begins on 1 June and runs until 31 October. Details can be found at www.embl.org/eipod.

Upcoming free courses in the non-scientific training programme include:

Course	Date / site
Effective Writing 2	4 Sept (EBI)
Personal Effectiveness	16 Sept (HD)
Negotiating Skills	17 Sept (HD)
Conflict Management	18 Sept (HD)
Effective Team Leader 1	17-18 Sept (EBI)
Introduction to Meetings, Events and Conferences	23 Sept (HD)

Please see http://intranet.embl.de/personnel/training_development/index.html for further courses.

fromthePhDProgramme

Everything You Always Wanted to Know About the EIPP* (*But Were Afraid to Ask)

Did you know that the EMBL International PhD Programme attracts around 900 applications per year? Our most powerful advertising tool is word of mouth; the weakest one is advertising in *Nature*. Therefore, we rely on all EMBLoyees to spread the word!

For anybody searching – or is it 'googling'? – for a PhD in the field of molecular biology, the EIPP is listed on the first page of Google. As for our faculty members looking for physicists, chemists, mathematicians and informaticians, despair not: we're working on getting you up there as well, knowing that

the programme needs applicants from various disciplines to enrich EMBL's colourful tapestry. Besides interdisciplinarity, internationality is the EIPP's other forte; with 36 nationalities currently represented, EMBL is certainly an exciting community to join!

Would like to find out more? Contact Helke, Lars or Milanka who will answer most of your questions without blinking or, failing that, will dig deep in their collective memory to satisfy even the most demanding customer.

– *Milanka Stojkovic and Helke Hillebrand*



fromtheStaffAssociation

30 June – Meet the Delegates: Heidelberg staff can meet the Council delegates in the canteen between 12.00pm and 1.30pm on 30 June. The next Meet the Delegates lunch will be in Monterotondo on 24 November.

11 July – Summer Party (EMBL Heidelberg): Free to all EMBL staff and their families (please remember to bring your ID card). Activities for kids include bouncy castles, pony riding, face painting, a puppet theatre and science games. The Walldorf brass band, the Alptrauboys and the Freddy Wonder Combo will perform.

Tombola tickets will be on sale soon to help raise money for the Waldpiraten children's camp. Prizes include iPods, hotel and restaurant vouchers, a personal styling day, a golf day and more. The winners will be drawn at the Summer Party.

Keep up-to-date with events at www.embl-heidelberg.de/~staff (site for EMBL pensioners: www.embl-heidelberg.de/~staff/pensioners).
– *Catherine Floyd*

24 June EMBL Heidelberg

EMBL Distinguished Visitor Lecture: Dissecting microRNA mechanisms of action *in vitro*. Nahum Sonenberg, Rosalind and Morris Goodman Cancer Centre, Montreal

24 June EMBL Heidelberg

Science and Society: A long road yet to travel: building scientific capacity in developing countries. Emmanuel Reynaud, School of Biology & Env. Science, University College Dublin

24 June EMBL Heidelberg

EMBL Distinguished Visitor Lecture: Regulation of membrane fusion in synaptic transmission and hormone secretion. James Rothman, Yale University, New Haven

29 June-2 July EMBL Heidelberg
Summer Council Meeting

30 June EMBL Heidelberg

Meet your council delegate over lunch

30 June-3 July EMBL Hamburg

Course: Practical workshop on characterisation of protein complexes in structural biology

1-3 July EMBL Heidelberg

Course: ELLS LearningLAB: The power of DNA technologies

6 July EMBL Heidelberg

EMBL Distinguished Visitor Lecture: Structural insights into microtubule dynamics and kinetochore engagement. Eva Nogales, HHMI, Univ. of California, Berkeley

11 July EMBL Heidelberg

EMBL Summer Party

14 July EMBL Monterotondo

EMBL Distinguished Visitor Lecture: Pathways regulating stem cell self-renewal. Leonard Zon, HHMI/Children's Hospital, Boston

15-17 July EMBL Monterotondo

Course: ELLS LearningLAB: L'evoluzione della teoria di Darwin

For more details about these events and more, visit www.embl.org/events

Anna Efstathiou is a new Senior Project Officer at EMBL Heidelberg, and will be involved in a broad spectrum of administration activities. She previously worked for the Greek Ministry of Culture in a variety of roles including project management, proposal and script-writing, press and public relations and organisation of events. In 1999 she went to Edinburgh to study for an MSc in nationalism studies and a PhD in sociology. Married to an Irish neuroscientist, Anna has two bilingual children who are quickly becoming trilingual at the EMBL Kinderhaus.



Ulli Weida is the new Personnel Officer at EMBL Heidelberg. Originally from Karlsruhe, Ulli studied Economy/Human Resources Management in Pforzheim and Deventer, the Netherlands. He spent six months' placement at DIS AG in Düsseldorf, a subsidiary of Adecco Group, while he completed his diploma thesis, and since then he has worked on various recruitment projects which included a four-month visit to the Ukraine. Ulli spent seven months travelling in Latin America before coming to EMBL Heidelberg.

Jo McEntyre has joined EMBL-EBI as the new team leader for Literature Services. Jo spent the past eleven years at the National Center for Biotechnology Information in Bethesda, USA, where she has been involved with several projects to make the biomedical literature available online and link it to public databases. Prior to this she was an editor for the journal *Trends in Biochemical Sciences*, based in Cambridge, UK. Jo originally trained as a biologist, and holds a PhD in plant cell biotechnology from Manchester Metropolitan University.



NEW AT EMBO... Howy Jacobs is new Senior Editor of *EMBO reports*. An EMBO Member since 2001, Howy received his PhD from the University of Glasgow in 1981 and is Academy Professor and Professor of Molecular Biology at the University of Tampere's Institute of Medical Technology. His research focuses on the role of mitochondria in ageing and disease.

Science in School site revamped www.scienceinschool.org



Science in School, the European journal to promote inspiring science teaching, has a new-look website which now features rotating science highlights, readers' forums and feedback and an improved search facility. "Articles are sorted by language and subject, with directions to related stories, and there are RSS feeds available according to topic," says EMBL-based editor Eleanor Hayes. "We're always looking for people to write and translate articles, so please get in touch!" (editor@scienceinschool.org)

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