



## Major new training centre to be built at EMBL-Heidelberg

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## EIROforum launches science teaching journal

A new European journal to promote inspiring science teaching, *Science in School*, was launched at EMBL by the EIROforum on 28 March. *Science in School* is Europe's first international, multidisciplinary journal for science teaching. It's aimed at secondary school teachers, scientists and other stakeholders in European science education, and highlights the best in teaching and cutting-edge research, drawing on the overlap between subjects and the potential for interdisciplinary work.

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## Christos heads for home

EBI research Group Leader Christos Ouzounis has said goodbye to Hinxton. He's taking his expertise back to his native Greece to become a director of research at the Centre for Research and Technology Hellas (CERTH) in Thessaloniki. He will maintain ties to the EBI through collaborative projects; bioinformatics workshops have already been jointly organised by the EBI and the Institute of Agrobiotechnology (INA), a member of CERTH. Christos will establish the research activity of the Computational Genomics Unit.

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## EUCOMM gets ahead of the game

Conditional knockouts of all mouse genes will soon be available to researchers worldwide – and they'll be home-grown here in Europe. Groups taking part in the European Conditional Mouse Mutagenesis Programme (EUCOMM), the largest research project for mouse mutagenesis in the world, met in Munich on 2-3 March.

The project is well on track for the projected goal of 20,000 mutated genes to be generated in mouse embryonic stem (ES) cells using conditional gene trapping and gene targeting approaches within three years.

EMBL-Monterotondo, a key player in the EUCOMM programme, was represented there by Head of Outstation Nadia Rosenthal and Group Leader Cornelius Gross. Another participant is the EBI's Ewan Birney, whose Ensembl team is collaborating with EUCOMM to collect and provide access to the data.

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## Party the Italian way



EMBL-Heidelberg's Italian community took over Claus' kitchen to cater for the Italian party on 1 April. Having prepared all the delicious antipasti, main courses and desserts themselves, the organisers served the 150+ party-goers with panache. A tombola, music and dancing into the wee small hours followed. *Grazie mille e alla prossima...*

**5** Novel screening array miCHIP now available

**7** EMBO/EMBL science writing prize launched

**8** ELLS takes LearningLABS to Grenoble

A double helix in XXL size will be the latest addition to the EMBL-Heidelberg campus and will bring together EMBL's conference and outreach activities.

At an Extraordinary Meeting on 22 March, EMBL Council approved the construction of an Advanced Training Centre (ATC), to start in September of this year. The project has been made possible by a large contribution from the host country, Germany, and a donation from the Klaus Tschira Foundation. The ATC will be a unique European centre that combines cutting-edge facilities for practical laboratory and computer training courses with the infrastructure required to host medium-sized international conferences.

The core of the building will feature a 450-seat auditorium, exhibition space for 300 posters, teaching labs for 60 participants and a 30-seat computer teaching laboratory. There will be three medium-sized seminar rooms and numerous additional meeting rooms for use by course and conference visitors and EMBL staff.

Such facilities are urgently required because the past four years have seen a third of those who want to attend conferences here having to be turned down owing to lack of space, and up

to 80% of course applicants disappointed for the same reason.

"European research in the life sciences is no longer confined by geographical or disciplinary borders," says DG Iain Mattaj. "Communication between scientists is more important than ever, in order that information on the latest research findings and training in the most advanced technologies be broadly accessible. The ATC will help achieve this goal in Europe. EMBL and EMBO have a long tradition in cooperating to provide top quality meetings for the benefit of the scientific community, and the ATC will enable both organisations to increase their collaboration and perform even better in this area."

The building will also help to integrate all EMBL training activities. It will house the

*"European research in the life sciences is no longer confined by geographical or disciplinary borders"*

*Iain Mattaj*

EMBL International Centre for Advanced Training (EICAT) which includes the International PhD Programme, the Postdoctoral Programme, Courses and Conferences, the Science and Society Programme, the European Learning Laboratory for the Life Sciences and the Visitors Programme. It will also be home to the Office of Information and Public Affairs, the Szilárd Library and the Photolab.

The canteen and kitchen will also move into the building to cater for both meeting participants and, on a daily basis, EMBL staff. There will also be ample space for social events in the design, which will comprise a light, airy helical main building in glass with outside seating areas, walkways and terraces.

The building will be located opposite the Operon between the main lab and the new car park. It will allow research and administrative activities to expand into space made available in the main laboratory, providing welcome relief from the overcrowding that is the present norm.

Construction is scheduled to start in autumn this year and will last roughly two years. During that period, the main road leading up to EMBL will remain accessible; portacabins will be set up to house construction staff.

# New training centre for EMBL

## Council approves plans for ATC to be built at Heidelberg



# Taking training for a turn – a vision for EICAT

After working in the USA, France and Portugal, Matthias Haury never expected to be coming back to Germany, but the challenge of coordinating EMBL's new International Centre for Advanced Training (EICAT) proved too much of a draw.

"The function of EICAT is to join all of EMBL's training activities under one umbrella, taking advantage of synergies, avoiding overlap and building a more structured programme," says the Wiesloch-born biologist, whose most recent position was Chief Technology Officer of the Gulbenkian Institute of Science in Oeiras, Portugal. "Most of the activities under EICAT already exist and they are working well; we are now going to try to further enhance the existing programmes and add new activities."

The EMBL International PhD Programme, the new Postdoctoral Programme, ELLS, the Collaborative Training Programme, Courses and Conferences, the Scholars' Programme and the Visitors Programme will all be the focus of EICAT's activities, as will vocational training for group and team leaders (e.g. to develop their management skills), and training for technical and administrative staff in collaboration with the Personnel Section. So what's first on the task list for Matthias, who took up the post in February?

"Certain areas require more investment immediately," he says. "Internal training certainly needs to be expanded, and we are aiming to provide activities in areas of career development, such as management and communication, and information about other opportunities that exist in the job market, such as publishing or patent law."

"We'll also be setting up courses for computer training and other technical skills on various levels. EICAT will work alongside IT Services, Personnel, OIPA and particularly ELLS to establish these types of courses."

As well as providing advanced training in house, EICAT will also be bringing more people in. "The Courses and Conferences Programme will certainly see a considerable increase in activity because of the ATC, with its new possibilities for larger conferences and more participants," says Matthias. "We'll be continuing and adding to the existing conferences, courses and workshops, and trying to get more scientists involved. We also aim to structure the thematics to cover more areas of interest for European scientists."

"Particularly in this context I hope that we will be able to further strengthen our partnership with EMBO and to benefit from their well recognised expertise. EMBO has a long tradition and an outstanding record in evaluating conference proposals and in thinking strategically about topics of interest, and is actively participating in the EICAT committee and

thus the development of activities in the areas of advanced training and teaching.

"Fundraising is going to be an integral part of EICAT in the future, too. Funding from EMBO will certainly continue to be most important, and as for other sources, some

fundraising is easier than others; biotech conferences, for example, are more likely to obtain corporate sponsorship, because the companies can exhibit there, but additional funding opportunities will be explored on a case-by-case basis."

How will EICAT benefit the Outstations?

"We'll ensure that the Outstations are well integrated, and that there's an improved exchange of information," says Matthias. "It will be important to draw on the diverse expertise that they have. For example, the EBI has a lot of experience in teaching different types of courses than we do here. They're setting up new computer based training schemes which will be an interesting area for EICAT to be involved with."

Matthias is keen to stress that EICAT is a team effort. "We're building on existing strengths," he says. "We want to try to listen to people's experiences and see what new approaches might work, and I'll see what I can bring from my own experiences too. I'm in the process of meeting all the Group Leaders to get a picture of what their interests and activities are, and to get an idea of what sort of plans they have for future events. Anybody with an idea for a course, conference or any other issue related to training is welcome to talk to me about how we can make it happen."



Photo: Maj-Britt Hansen

## Getting to the heart of the matter

EMBL is offering its expertise in a collaboration to fight cardiovascular diseases, among the most common health problems and causes of death in the world.

The Magdi Yacoub Institute (MYI) at the UK's Harefield Heart Science Centre, Imperial College London and EMBL-Monterotondo will work together to connect discoveries in basic research to new therapies and treatments.

"With the help of our transgenic mouse models for heart disease we can investigate the genes that play a role in the development of heart defects and this knowledge can then form the basis for clinical studies with patients," says Monterotondo Head Nadia Rosenthal.

The new collaboration arose from contacts between Sir Magdi Yacoub and Nadia, who has developed models of heart disease and tissue regeneration in mice. Sir Magdi, founder and Director of Research at the Harefield Heart Science Centre, is one of the world's foremost experts in the fields of organ transplantation and heart research.

He established the largest heart and lung transplantation programme in the world at Harefield Hospital. The Heart Science Centre, which is operated collaboratively by the MYI, the Royal Brompton & Harefield Hospital Trust and the National Heart and Lung Institute at Imperial College, already has several research groups devoted to various aspects of heart disease, ranging from molecular and cell biology to tissue engineering of heart valves.

"Basic and clinical research have traditionally been quite separate, and today there's still a considerable gap," Sir Magdi says. "Pooling the resources and expertise of our complementary institutes in this new collaboration will bridge this gap. In this way we can obtain the integrated understanding of the cardiovascular system that we need to transfer what we have learned about heart diseases in the laboratory to patients as soon as possible."

The collaboration will initially run for four years and will formalise joint research projects between the Yacoub and Rosenthal laboratories.

# EIROforum launches science teaching journal

Science is moving more rapidly than ever; one discovery chases the next at an incredible speed. School teachers have trouble keeping up with the pace, and many pupils call science classes “boring”. In hopes of addressing this problem, a new European journal to promote inspiring science teaching has been launched at EMBL by the EIROforum. *Science in School* was presented to the public in an event on 28 March.

*Science in School* is Europe’s first international, multidisciplinary journal for science teaching. It’s aimed at secondary school teachers, scientists and other stakeholders in European science education, and highlights the best in teaching and cutting-edge research and the potential for interdisciplinary work. *Science in School* is part of a broader science education project, NUCLEUS, supported by the European Union. Its publisher, EIROforum, is a partnership between Europe’s seven largest intergovernmental research organisations, including EMBL.

*Science in School* is free, appears quarterly in print and online, and features news about the latest scientific discoveries, teaching materials, stories about inspiring teachers and scientists, reviews of books, films and websites, suggestions for class trips, training opportunities and many more useful resources. Contributors to the first issue include the world-renowned neurologist and author Oliver Sacks and scientists and teachers from nine countries.

“Science is becoming increasingly international and interdisciplinary,” says Eleanor Hayes, editor of the journal. “The most exciting development of the day may happen anywhere in any field: students may suddenly want to talk about a discovery on Mars, a medical breakthrough or a natural disaster. On such days it would be a shame not to put the textbooks aside and to capitalise on that curiosity.”



Speakers at the launch included William Stirling, Director General of the European Synchrotron Radiation Facility and incoming chairman of the EIROforum; Stephen Parker, Head of Education and Science in the Directorate for Science and Society of the European Commission; and EMBL’s Matthias Hentze and Silke Schumacher. To read the first issue of *Science in School*, subscribe or contribute, visit [www.scienceinschool.org](http://www.scienceinschool.org).

The launch of *Science in School* took place during the European Schools Science Symposium (ESSS). This event was attended by 20 science teachers and 175 science students from the 13 “European Schools” which provide a multilingual and

multicultural education for pupils at all levels. Every year an international European-wide science contest is held for pupils from the schools to produce an original science project from any discipline. The Symposium and prize-giving

event for the competition was this year hosted by EMBL for the third time, with EMBL staff joining the judging panel. The overall winner will go on to take part in the European Young Scientist Contest in Stockholm later in the year.

## EUCOMM gets ahead of the game in mouse mutagenesis programme

Conditional knockouts of all mouse genes will soon be available to researchers worldwide – and they’ll be home-grown here in Europe.

The recent meeting of the European Conditional Mouse Mutagenesis Programme (EUCOMM), the largest research project for mouse mutagenesis in the world, took place in Munich on 2-3 March. EMBL-Monterotondo, a key player in the EUCOMM programme, was represented there by Head of Outstation Nadia Rosenthal, who will take part in the creation of new mouse lines associated with the effort, and Group Leader Cornelius Gross, whose aim is to study whether particular knockouts affect animal behaviour or cognitive function.

At the meeting the details of the project were made clear. It’s well on track for the projected goal of 20,000 mutated genes to be generated in mouse embryonic stem (ES) cells using conditional gene trapping and gene targeting approaches within three years. Rather than simply making global knockouts, which remove or disrupt genes in all of an animal’s

cells, the project will create conditional knockouts that can be used to remove genes specifically from selected tissues in the body or at precise phases of development in about 90 per cent of mouse genes.

Doing so will require creating lines of mice in which genes can be “switched off” in specific types of tissues at particular stages, which is crucial to understanding the activity of proteins that have multiple functions or are otherwise lethal, and also to the creation of disease models. Crossing a mouse carrying a silent mutation (floxed gene) to a mouse expressing an activating enzyme (Cre recombinase) in a desired tissue then produces offspring in which the mutation is induced only in that cell type.

A library of mutated ES cells will be freely available to laboratories throughout the world, allowing scientists to make mouse strains in a standardised, cost-effective way. In parallel, a “zoo” of mice expressing the Cre enzyme in different cell types is being assembled as a joint project between EMBL-Monterotondo and another EUCOMM partner, the Institut

Clinique de la Souris (ICS) in Strasbourg.

“This is exciting because in a few years conditional knockouts will be available for nearly all genes at a cost of no more than shipping,” says Cornelius. “It’s also great that Europe is clearly ahead of the game as far as mouse mutagenesis is concerned. EUCOMM’s high-throughput phase began in March of this year, whereas the US project is still in the planning phase.”

EUCOMM, coordinated by Wolfgang Wurst at the German National Research Center for Environment and Health in Munich, and Allan Bradley at the Sanger Institute (UK), is part of a large palette of 15 research projects in mouse genomics that have been sponsored by the EU for a total of €135m. Another participant is the EBI’s Ewan Birney, whose Ensembl team is collaborating with EUCOMM to collect and provide access to the data. The group of Francis Stewart, an EMBL alumnus now at the University of Dresden, will also play an important role in the production of targeting constructs for high-throughput mutagenesis.

## Bork group redraws the Tree of Life

Sometimes news comes out of EMBL that captures the imagination so much that it makes it to the regular, non-science pages of the popular press, such as *The Guardian* and *La Repubblica*. This is the case with a recent paper from Peer Bork's group.

The Heidelberg lab has developed a computational method to produce what is likely to be the most accurate "tree of life", the mapping of the evolutionary relationships of plants, animals and single cell organisms.

Since 1870, when German biologist Ernst Haeckel drew the first tree of life, scientists have continuously expanded it, adding microorganisms and using modern molecular data. However, many parts of the tree have remained unclear.

Peer's group, which specialises in the computational analysis of genomes, devised a computational method which resolves many of the open questions. For example, they formalised the choice of genes on which to focus; since all organisms descend from the same ancestor, they must share some common, universal genes. Francesca Ciccarelli and Tobias Doerks managed to identify 31 genes with clear relatives in 191

organisms, ranging from bacteria to humans, to reconstruct their relationships.

"Organisms inherit most genes from their parents, but over the course of evolution, a few have been obtained when organisms swapped genes with their neighbours in a process called horizontal gene transfer," says Francesca. "The latter class of genes does not tell you anything about your ancestors. The trick was to identify and exclude them from the analysis, reducing the noise in the data."

The study, which appeared in the 3 March issue of *Science*, gives some intriguing insights into the origins of bacteria and the last common universal ancestor of life on earth today. The improved tree has also shed light on other research carried out by the group, who are participating in projects that collect genetic material of unknown species *en masse* from environments such as farm soil and the ocean floor.

- If your group has an important paper coming out, contact Anna-Lynn Wegener ([wegener@embl.de](mailto:wegener@embl.de)) in the press office (groups at the EBI should contact Cath Brooksbank ([cath@ebi.ac.uk](mailto:cath@ebi.ac.uk))).

## ...and Peer is officially "hot"

Peer Bork has been named fourth in the recently announced Thomson Scientific list of the "hottest researchers" in the natural sciences, having authored or co-authored seven "hot" papers in 2004–2005 that achieve a rate of citations in scientific journals that is markedly higher than papers

of comparable type and age. The overall winner, Osaka University's Shizuo Akira, had 11 such papers. Moreover, EMBL is the only European institute that has a researcher among the top ten. The list appears in the current issue of *Science Watch* and at [scientific.thomson.com/press/2006/8310878](http://scientific.thomson.com/press/2006/8310878).

## EBI hosts masters students from across the world

The second annual EBI Masters Open Day on 20 March welcomed students from a wider range of countries than ever before. Held in the Conference Centre on the Wellcome Trust Genome Campus, where the EBI is situated, the day hosted 91 people from up and down the UK, across Europe and further afield.

Students from 11 UK Masters courses (representing just under 50% of the total Masters Course provision in the UK) enjoyed a day devoted to the goings-on at the EBI. Also present were participants from the Netherlands, Austria, Germany, Norway and even Chile (one visitor extended his UK stay just so he could attend).

The day was divided into two main sessions. In the auditorium each session was divided into three half-hour lectures from various EBI research staff. In the Conference Centre foyer,

stands were set up for the service groups who demonstrated their facilities to groups of participants and answered questions about various aspects of the biology and technology.

The sessions were separated by a rather lovely lunch where participants had the opportunity to speak to current EBI PhD students. The final presentation represented an industry perspective and was conducted by Mathew Woodwork of Cambridge Antibody Technology, formerly an employee of AstraZeneca.

Although the event is designed to motivate participants studying for a bioinformatics Masters degree, it is open to anyone who is interested in the work of the EBI and would like to find out more. Put next March into your diaries to join us for our third Open Day.

– Lisa Mullan

## miCHIP makes the grade

Interview with Mirco Castoldi, postdoc, Hentze Group

**Mirco, you and your colleagues have developed something called "miCHIP". What is it?**

*Mirco Castoldi:* Well, it's the first sensitive array for microRNA expression profiling that uses LNA-modified capture probes. It's the result of a collaboration with Martina Muckenthaler of the University of Heidelberg and other members of the MMPU, as well as Vladimir Benes and the Genomics Core Facility.

**What exactly is microRNA expression profiling?**

*Mirco:* Well, microRNAs are short regulatory RNAs which control gene expression. They're thought to be regulators of up to 25% of mammalian genes, and aberrant miRNA expression contributes to dysfunction and the development of some diseases. It's important to be able to profile miRNA expression, using a screening process, to compare normal conditions to diseased ones.

**So what are LNA-modified capture probes?**

*Mirco:* LNA stands for locked nucleic acid, a modified form of RNA or DNA which is better for working with very short probes. Binding between the nucleotides of DNA and RNA is very sensitive to temperature – base pairs fall apart, and a G-C pair splits at a much different temperature than A-T. Most DNA chips use long molecules, so quite a few bases bind. This is stable, the molecules bind at an average temperature and remain that way, so that you can investigate them.

But microRNAs are by definition very short and it is hard for probes to hang onto samples. LNAs keep the nucleotide sequence of the probes, but change the sugars. This leads to very strong binding that happens at normalised temperatures and remains stable while you investigate it.

**How can scientists at EMBL make use of miCHIP?**

*Mirco:* It's available through the Genomics Core Facility. Anyone who would like to get further information can contact either me at [castoldi@embl.de](mailto:castoldi@embl.de) or Vladimir Benes at [benes@embl.de](mailto:benes@embl.de).

## Free access to essential databases

A major new EU-funded project coordinated by the EBI was signed, sealed and delivered on 1 March.

Free European Life Science Information and Computational Services (FELICS), coordinated by EBI Associate Director Graham Cameron, will ensure that European scientists enjoy free access to a comprehensive range of world-class biological databases. It's a collaboration between the EBI, the Swiss Institute of Bioinformatics (SIB), the University of Cologne and the European Patent Office.

The work of the EBI and SIB is to create and make available the public domain databases. The University of Cologne's task is to put the information in its BRENDA enzyme function

database into the public domain as part of the interlinked collection of information; currently, licensing restrictions prevent this. The European Patent Office will ensure that the biomolecular information from patents is also included, and that people searching the databases for patenting reasons are well supported.

The EBI will make use of an emerging model, grid computing, to provide massive access to the biomolecular databases. This method allows higher throughput computing by using the resources of many separate computers connected by a network. Projections of the current growth suggest a daily "hit" rate of 15 million by the end of the five-year project.

## Advice to future recruits at Lausanne careers event

EMBL was one of 27 international organisations at the International Career Day 2006 at Lausanne University on 20 March, organised by the Swiss Federal Department of Foreign Affairs, the university and the Swiss Federal Institute of Technology (EPFL).

More than 50 life science students attended the 45-minute talk on EMBL, and most

came to the stand afterwards to ask for more details about career and internship opportunities and the PhD Programme. One young woman who came to the stand was the daughter of an EMBL Group Leader at Heidelberg in the 1980s. Now she's studying life sciences herself; maybe she'll return!

– Stephanie Weil

## Love thy neighbour: EBI and Sanger explore synergies

Neighbours the EBI and the Wellcome Trust Sanger Institute strengthened links on 3 March with a jointly organised Research Day.

As well as sharing a campus, the two institutes have a lot of overlap in what they do. The Wellcome Trust Sanger Institute is one of the leading genomics centres in the world, dedicated to understanding genomes through large-scale sequencing and analysis.

People from the research side of the EBI joined with the bioinformatics part of the Sanger Institute for the day, which was attended by about 150 people and featured talks, posters and a discussion forum. Head Janet

Thornton introduced the EBI and Richard Durbin from Sanger gave an overview of his institute before Group Leaders from both sides presented their areas of research.

The day concluded with a discussion on how to enhance existing interactions between the EBI and the Sanger Institute and how to foster new ones. A committee was formed to explore future synergies between researchers at the two institutes; Nick Luscombe and Nicolas Le Novère were appointed as the EBI representatives.

Along similar lines, a joint Service Day is planned for 12 June this year to present the services portions of the two institutes.

## EBI provides portals for EU networks

Among the many things the External Services group at the EBI does is to host websites for EU-funded projects. These act as a hub for information exchange by the partners and participants while also informing the public of the aims, status and results.

At present there are five EU portals: SPINE ([www.spineurope.org](http://www.spineurope.org)), BioSapiens ([www.biosapiens.info](http://www.biosapiens.info)), EMBRACE ([www.embracegrid.info](http://www.embracegrid.info)), ENFIN ([www.enfin.org](http://www.enfin.org)) and SymbioMatics ([www.symbiomatics.org](http://www.symbiomatics.org)). A custom-built content management system (CMS) allows rapid deployment and

alteration of web pages and templates as well as providing a flexible programming platform that caters for each project's unique requirements. The CMS also provides different levels of security, allowing the project partners to share work in progress before it is made available to the public, and is downloadable for use by third parties.

The service, which covers those projects with direct links to the EBI, will be extended to new ones in the future. For information contact Brendan Vaughan in the External Services Group at [bren@ebi.ac.uk](mailto:bren@ebi.ac.uk).

## Screen test

The Vizier project, for which the Hamburg Outstation is managing the training and dissemination, is taking to the small screen with the recent release of a DVD aimed at explaining the project to the public.

"Discovering the Viral World" opens with a look at the global threat of viruses like SARS and goes on to describe the aims of Vizier, an FP6-funded EU project involving EMBL-Hamburg and several other partners.

Vizier was set up in 2003 to study more than 300 RNA viruses in what is the largest structural genomics programme of its kind. The film features several of the structural biologists, bioinformaticists and virologists involved talking about their particular areas of expertise. Part of it has already been used to introduce industry partners to the project, and could also be used as an effective teaching tool.

If you'd like a copy of "Discovering the Viral World", e-mail Paul Tucker at [tucker@embl-hamburg.de](mailto:tucker@embl-hamburg.de)



## Welcome to Hellas

The EBI's first research Group Leader, Christos Ouzounis, has said goodbye to Hinxton – but he's taking his expertise back to his native Greece to direct research activity at the Centre for Research and Technology Hellas (CERTH) in Thessaloniki.

While at the EBI, Christos' Computational Genomics Group developed tools that allow researchers to extract the maximum amount of information from completely sequenced genomes. As a research director at CERTH, he'll be building on an existing collaboration. Bioinformatics workshops have already been jointly organised by the EBI and the Institute of Agrobiotechnology (INA), a member of CERTH. Christos will establish the research activity of the Computational Genomics Unit, a horizontal action across different primary disciplines: information sciences, biotechnology and chemical process engineering.

"I'm coming back to a very different country," he says. "Previously, Greece was an unlikely destination for researchers, but an expanding infrastructure and better connections are changing this. It's also good to be able to bring what I've gained from nine years at the EBI back to an EMBL member state."

The Center for Research and Technology Hellas ([www.certh.gr](http://www.certh.gr)) is a non-profit organisation under the General Secretariat for Research and Technology (GSRT) of the Hellenic Ministry of Development. It carries out basic and applied research with special emphasis on developing new products and services with industrial, economic and social impact.



### Strengthening science Europe-wide

When EMBO was established, its founding mission was to promote molecular biology in Europe. The same philosophy holds true today and is shared by EMBO's funding body, EMBC. A total of 25 EMBC Member States now support EMBO activities with the aim of improving life sciences research across Europe. This means more than simply supporting the top research, as this would inevitably restrict EMBO opportunities to member states with more established science bases. Special country-specific support is also crucial to enable every EMBC Member State to contribute to higher research standards across Europe.

This strategy has characterised the activities of EMBO and EMBC for many years. Following the collapse of the Eastern Bloc in the late 1980s, EMBO initiated a special "Eastern European Fellowship Programme". This was expanded in the 1990s, opening up EMBO Short-Term Fellowships to countries in Central Europe, regardless of whether they were EMBC members. With time, many of these countries have joined EMBC and on fur-

ther maturing will hopefully become members of EMBL, as with Croatia early this year.

These were important steps but it was clear to EMBO that the strengthening of science in these and other countries would require a deeper commitment. In 2002, EMBO established a partnership with the Howard Hughes Medical Institute (HHMI) to provide support for young investigators in Central and Eastern Europe. Annual EMBO/HHMI meetings held in different countries in the region brought together the best bioscientists and uncovered a need for new initiatives. This was confirmed in a survey of EMBO Fellows from Central and Eastern Europe who had not returned to their countries after completing their fellowships.

Initially the HHMI funding was used for start-up grants to encourage scientists to relocate to the participating countries and set up their labs there. The scheme was well received and led to EMBC discussions on broadening the programme to other interested member countries. A resulting EMBC Special Project gave rise to the recently launched EMBO Strategic Development Installation Grants. So far Croatia, the Czech Republic, Poland, Portugal and Turkey have signed up for the scheme. These countries will provide scientists selected by EMBO with an annual grant of €50,000 for three to five years – on top of any package provided by the institutes where the researchers are establishing their labs.

Equally significant are the networking opportunities the scheme presents. Awardees will be fully integrated into the networking

activities of the EMBO Young Investigator Programme, putting them in regular contact with Europe's most promising scientists. These interactions, combined with the awardees' own research and networking efforts, should ensure that they rapidly become well known in the European life sciences landscape. Ultimately this increased exposure and reputation should attract EU framework funding and other research grants – with the knock-on effect of boosting science in these countries.

– Frank Gannon

### EMBO Strategic Development Installation Grants

#### Award

- €50,000 annually for 3-5 years
- Participation in EMBO Young Investigator networking activities

#### Eligibility

- Scientists setting up labs in Croatia, the Czech Republic, Poland, Portugal, Turkey
- First-class scientific background and publication record
- Job offer in participating country at time of application
- Location outside receiving country at least two years prior to application (some flexibility for 2006 applications)

#### Application deadline: 15 July 2006

N.B. Applicants must apply jointly with the receiving institute. [www.embo.org/sdig](http://www.embo.org/sdig)

## Put your thinking caps on for the EMBO/EMBL Science Writing Prize

“Capture the imagination of a non-scientific audience and let the science tell the story” – that's the idea behind the new joint EMBO/EMBL Science Writing Prize.

Aimed at young life scientists, the initiative intends to promote communication about sci-

entific issues to interested non-scientists by encouraging writers to present a topic within the limit of 1,000 words, using language and style suitable for a non-scientific audience.

Entrants must be under 35 by the deadline for submissions, which is 15 September 2006,

and must work in Europe. The winner will be announced in November, and the award ceremony will be at the next PhD Students Symposium at the end of this year, at which the winner will be invited to read their piece. There's also a €1,000 cheque, the potential for publication in a popular science magazine and a free subscription to *EMBO reports*.

Winning submissions from previous science writing competitions have included "Through the Illusions", a story about the biological aspect of schizophrenia, and "Old soul in a young body", in which five-year-old Benny learns about stem cells helping him to cure his cardiovascular disease.

The prize is organised by EMBO and EMBL Science and Society officers Andrew Moore, Alessandra Bendiscioli and Halldór Stefánsson, as well as EMBL predocs Lindsay Murrells and Fabian Filipp. "It's a good example of one of the many ways in which EMBO and EMBL are collaborating to promote science communication," says Fabian.

Visit [www.embo.org/scisoc/writing\\_prize.html](http://www.embo.org/scisoc/writing_prize.html) for details and an online submission form.



Lindsay Murrells and Fabian Filipp, the predoc organisers of the prize

## News from the Alumni Association

### Alumnus finds there's an art to registering

**B**rice Kauffmann, a former postdoc at EMBL-Hamburg, was recently the winner of a silkscreen painting as the 1,000th person to register with the Alumni Association, in which there are now 1,050 members. Now a Senior Scientist at the CNRS Institut Européen de Chimie et Biologie (IECB), Pessac, France, Brice was delighted: "That's the first time I've won something!" See [www.embl.org/aboutus/alumni/news.html](http://www.embl.org/aboutus/alumni/news.html) to view the painting.

#### Brice, what made you return home to France?

I went back because the CNRS is the largest fundamental research organisation in Europe. IECB in Bordeaux hosts outstanding European chemists and biologists working in a multidisciplinary environment and is open to partnerships with academic and industrial research centres. They were looking for a crystallographer; I got the job through competition, which is how all civil servants (including tenured scientists at CNRS) are recruited in France.

#### What's challenging about this job?

I'm responsible for the X-ray diffraction and small angle scattering facility. What's really exciting is that I have two state-of-the-art machines that allow me to study the 3D structures of molecules of biological interest. In terms of research, I work mainly on topics from the local groups, as the facility is brand new and needs to be optimised. I hope to develop my own research with external collaborations soon.



#### How did EMBL prepare you for this position?

As a postdoc at EMBL-Hamburg (2004-06), I worked on methodological protein crystallography with synchrotron radiation. As a member of Manfred Weiss's team, I followed and participated in the building of the new beamline (X12). This experience has been invaluable in setting up the facility here. I was also involved in providing support to the users of the beamline, which was good training as I now help people everyday in collecting data on my machines.

#### Are you still in touch with EMBL colleagues?

I'm currently working with another EMBL alumnus, Sebastien Fribourg, formerly of Elena Conti's group, who is starting a structural biology group in our institute. I don't have an official collaboration yet but intend to establish one. I'd like to keep an eye on what's happening at EMBL, which is also why I joined the Alumni Association.

– Mehrnoosh Rayner

### UK alumni meet

**T**he first local chapter meeting for EMBL alumni in the UK took place on 15 February at London's University College. Forty scientists gathered for an afternoon of science and networking.

Talks were given by ex-EMBL Group Leader Angus Lamond of Dundee University ("Time-lapse proteomics and a quantitative analysis of nuclear dynamics"), Geoff Richards of the Human Frontier Science Programme ("HFSP as a user-friendly programme"), Christian Boulin ("Core Facilities at EMBL"), and Graham Cameron ("Current and future perspectives for the EBI").

There was a great demand in the ensuing discussions for a strong scientific programme for future meetings. Sixty alumni (including those who couldn't attend) expressed interest in pursuing the development of a UK local chapter, and Graham Cameron offered to host one at the EBI. Meetings offer an invaluable opportunity for EMBL staff and alumni to network and exchange scientific ideas.

The chair of the alumni board, Angus Lamond, and the co-ordinators of the event, Annalisa Pastore of the National Institute for Medical Research in London and Mark Pfuhl of the University of Leicester, would like to thank their UCL host, EMBL alumnus Dan Cutler, and all participants. If you're interested in UK chapter meetings contact Annalisa at [apastor@nimr.mrc.ac.uk](mailto:apastor@nimr.mrc.ac.uk).

### ELLS' French connection

**T**he European Learning Laboratory for the Life Sciences (ELLS) took their LearningLABs to France for the first time with an event at EMBL-Grenoble on 3-4 April.

Scientists at the French Outstation hosted local science teachers for a series of talks and presentations, "Explorer les molécules: de la structure et la fonction", concentrating on their own area of expertise, structural biology. LearningLABs aim to combine cutting-edge science with simpler activities easily transferable to the classroom.

ESTAR PhD students Jeanne Morinière and Elena Seiradake played a huge part in the planning of the event, and were pleased at the enthusiasm of the teachers. "Even when the scientists were exhausted at the end of the day, the teachers still felt energetic enough for another trip to the beamlines," says Jeanne. "It was a very enjoyable day for everybody."



Photo: Marietta Schupp

### Finnish fact-finding

Far right: Sabrina Rüggeberg explains the work of the Proteomics Core Facility during the visit to EMBL-Heidelberg of 11 members of the Finnish national parliament's Committee for Culture and Education on 13-14 March.

The MPs, who were led by committee chairman Kaarina Dromberg and included EMBL Council member, vice-rector of Helsinki University and EMBC president Marja Markarow, were particularly interested in EMBL, as Finland is in the process of setting up an EMBL-affiliated Centre for Molecular Medicine, Genetics and Epidemiology.

– Lena Raditsch

## Career day offers a look at non-research alternatives

On Thursday 8 June (which is, conveniently, the day before Lab Day), EMBL will host its first Career Options Day. Organised by the postdoc association, the Postdoc Programme and EMBLEM, and hosted by the postdoc association, the event will aim to give an overview of non-academic career possibilities and is open to all EMBL staff from all sites.

Despite following an academically oriented career path for many years while doing their PhDs and postdocs, many scientists go on to take up non-academic positions afterwards. The aim of Career Options Day is to show EMBL's scientists what else is out there and help them make an informed decision when exploring career choices other than the usual route into academia or research.

The day will feature a programme of speak-

ers from a broad spectrum of disciplines, covering scientific writing and editing, industry, patenting and policy making, who will talk about their career choices and how they made the leap into another field.

In addition to the talks, small group sessions with the speakers will allow attendees to find out more. Confirmed speakers are Sieglinde Gruber (European Commission), Oskar Zelder (Group Leader, BASF), Isabel Arnold (editor, *The EMBO Journal*), Chris Echeverri (CEO/CSO, Cenix BioScience), Georg Schnappauf (patent attorney, Dr. Volker Vossius Patent Agency) and Lone Frank (author and science writer for *Weekendavisen* (Denmark) and *Science*).

For more information, please contact [postdoc.association@embl.de](mailto:postdoc.association@embl.de)

– Jeroen Raes & Birgit Kerber

## news&events

**Lab Day**, a chance for scientists from all EMBL units to convene in Heidelberg and learn about the inspirational things their colleagues are doing, will take place on Friday 9 June this year. The day's packed schedule will include talks and presentations, lively poster sessions, the PhD graduation ceremony and plenty of food, drink and entertainment. A more detailed programme will be available on the web soon.

**February 2006** saw the release of a new UniProt service, UniSave: the UniProtKB Sequence/Annotation Version Database. UniProt (Universal Protein Resource) is the world's most comprehensive repository of protein sequence and function created by joining the information contained in Swiss-Prot, TrEMBL and PIR. UniSave is a comprehensive archive of entry versions from UniProtKB/Swiss-Prot and UniProtKB/Trembl, and what's new is that it also provides access to previous versions. See [www.ebi.ac.uk/uniprot/unisave](http://www.ebi.ac.uk/uniprot/unisave) for more.

**eProtein Scientific Meeting and Workshop:** The EBI, Imperial College London and University College London are hosting a scientific meeting on Protein and Genome Annotations on 24 April. Funded by the UK Department of Trade and Industry, BBSRC and the BioSapiens EU Project, the meeting will describe current technical and scientific approaches allowing contributions and access to annotations from many different laboratories based on GRID DAS technologies. It will be followed by a two-day workshop addressing the use and implementation of the systems designed by the eProtein partners. Please register at [www.ebi.ac.uk/Information/events/eprotein](http://www.ebi.ac.uk/Information/events/eprotein).

**Scientists from all over the world** tackled the threat of malaria at the second annual BioMalPar conference at EMBL-Heidelberg on 5 April. Seminars and poster sessions for an international audience of 250 covered topics such as the genetic basis of the parasite's disease mechanisms and genetic modifications of mosquitoes to prevent the spread of the disease. BioMalPar, the network of excellence for biology and pathology of the malaria parasite, brings together 20 European and African institutions to fight one of the world's biggest health problems, which kills a child in Africa every 30 seconds and infects 500 million people each year.

**The Science and Society Reading Club** at EMBL-Heidelberg has been resurrected. At the relaxed monthly meetings, which are open to all, participants discuss an article or book of interest to scientific and non-scientific staff alike. The next meeting is on 3 May at 18.00 in room 215. See [www.embl.org/aboutus/sciencesociety/reading.html](http://www.embl.org/aboutus/sciencesociety/reading.html).



Sanna Kass holds young falcon Prinz during a recent Kinderhaus visit to Tinnunculus, the falconry at Königstuhl. The children were also introduced to a beautiful owl called Julchen and a sea eagle with a huge wing span, and enjoyed an exciting airshow by some of the birds. Photo by Anita Urban.

### from the Staff Association

On 29 March, the Staff Association (SA) convened its AGM in the Operon. The meeting began with an overview of the function of the SA, which is to promote social and sporting facilities and to assist and represent staff both on an individual and a global level.

The co-chair announced the Heidelberg 2006 elections and asked for candidates to come forward. More information can be found on [www.embl.de/elections](http://www.embl.de/elections).

Lena Reunis presented the final version of the EMBL long-term care (LTC) policy, for which staff can now apply. More information is at [www.embl.de/staffonly/personnel/longtermcare.html](http://www.embl.de/staffonly/personnel/longtermcare.html). The scheme is now running on a completely voluntary basis and is subsidised by EMBL. If by 31 August 100 staff or pensioners have signed up for the scheme, we will avoid the need for medical checks for everyone. One issue for which the staff at the meeting showed overwhelming support was to find a way to include EMBL pensioners who have reached the age of 65 or over in the LTC facility, as they are currently excluded.

At the end of the meeting a private pension scheme was presented by Swiss-Life. Such a scheme was initially presented to predocs, postdocs and fellows who have no formal pension scheme membership whilst working in the laboratory. However, as the flexibility and mobility of this type of scheme could be of interest to many other staff, the Staff Association felt it would be useful to organise this presentation. Although we do not wish to recommend a specific company or policy it is important that staff are aware that such mobile schemes are available. Contact Alexandra Ganz (07221-952640 or [a.ganz@artus-gruppe.com](mailto:a.ganz@artus-gruppe.com) (English/German)) for more details.

Finally, the SA announced that Saturday 22 July will be the day for this year's big Summer Party in Heidelberg. Due to capacity issues in previous years we will be restricting the party to EMBL staff and their families, alumni and visitors. Therefore an ID control will be in force. We look forward to seeing you all there.

– Gareth Griffiths and Doros Panayi,  
Staff Association



Sylviane Troger is joining EMBL-Grenoble's administration on the departure of Bruna Kwiatkowski. Brought up in the Congo, Sylviane has spent time in the USA and the UK and is now coming from Brussels to join EMBL's French Outstation. She studied economics and finance before working in administrative positions for a variety of employers, including the EU's fisheries unit. She speaks several languages, including Dutch and Chinese, and is looking forward to when her family joins her in her new home.

Matthias Helmling has joined EMBL to take over from Björn Kindler as Information System Architect, DBA and Webmaster. He'll be responsible for the technical maintenance of EMBL-Heidelberg's main web servers, webmail system and database. He's a true local, having always lived in this area, and previously he has worked for LION bio-science and DENIC in Frankfurt. When he's not slaving over a hot computer you're guaranteed to find him jogging in the woods around EMBL.



**Other appointments:** Johan Vandevoorde has joined the Meetings Secretariat.

## On the piste

L-r: Sean Hooper, Cameron Mackereth, Marianne Uteng and Helio Roque enjoy a rest on the EMBL ski trip at Savognin, Switzerland, in March. All the skiers, snowboarders and snow-fans who attended would like to thank Damian Brunner, Irena Niebling and Philipp Heindl for organising an excellent weekend.  
Photo: Matt Betts



## awards&honours

EMBO Executive Director **Frank Gannon** has won the Seavite Award for Natural Science, an alumni award from the NUI Galway. The award was presented at the University's Annual Gala Banquet on 4 March in Galway.

**Philipp Keller** has won the Otto-Haxel Prize for best diploma thesis in physics. This is the second time that a student in Ernst Stelzer's lab has received the annual prize, which is awarded by the Faculty of Physics and Astronomy of the University of Heidelberg.

Alumnus **Marino Zerial**, now director of the Max Planck Institute for Molecular Cell Biology and Genetics in Dresden, has been awarded the 2006 Gottfried Wilhelm Leibniz Prize by the Deutsche Forschungsgemeinschaft (DFG) for his work on the molecular mechanisms underlying transport processes in cells. The award funds research work over a five-year period and can be used flexibly by the prizewinners, of which there are 11 this year. The prizes were presented on 8 February in Berlin.

**Michael Ashburner**, formerly joint head of the EBI and now at Cambridge University, has been awarded the 2006 Benjamin Franklin Award in the Life Sciences by [Bioinformatics.Org](http://Bioinformatics.Org) for his contributions to many open-access bioinformatics projects. The presentation of the award took place at the 2006 Bioinformatics.Org Annual Meeting in Boston, USA on 5 April. Last year's prize was also won by an EBI researcher, Ewan Birney.

## Who's new?

Sina Albert (Genomics Core Facility), Amit Anand (Wilmanns), Paras Kumar Anand (Griffiths), Bruno Aranda (EBI Proteomics Services), Sandra Biebing (Social Services), Lena Brandis (Gavin), Marco Brandizi (Microarray), Amanda Cobos (Schultz), Annette Faust (Lamzin), Erika Feltrin (Gene Ontology), Gianluigi Franci (Gannon), Juntao Gao (Serrano), Melina Haupt (Müller (Christoph)), Eric Huntzinger (Izaurrealde), Manuela Jaster (LAR), Melanie Kahl (Social Services), Nikolay Kolesnikov (Microarray), Jan Korbel (Bork), Vasileios Kotsikoris (Pasparakis), Patrick Meidl (ENSEMBL), Monika Niehoff (Internal Auditor's Office), Dominic Oyeniran (Microarray), Kostas Paraskevopoulos (Wilmanns), Marialuisa Pellegrini-Calace (Thornton), Isabelle Petit (Weissenhorn), Henry Schek (Surrey), Linda Schultdt (Tucker), Daniel Schweizer (Izaurrealde), Amoolya Singh (Bork), Gudrun Stranzl (Marquez), Claude Tadonki (Ravelli), Kairi Tammoja (Microarray), Imre Toeroe (Suck), Lydie Viatte (Hentze), Albert Vilella Bertran (ENSEMBL), Smitha Vishnu (Rorth), Thomas Walter (CMCI), Dennis Wang (Microarray), Katharina Wyschynski (Social Services), Haudry Yannick (Furlong)

## events@EMBL

**11 April 2006** EMBL-Heidelberg  
Distinguished Visitor Lecture: David Allis, Rockefeller University, NY

**24-26 April 2006** EBI, Hinxton  
eProtein Scientific Meeting and Workshop

**26 April 2006** EMBL-Heidelberg  
Science and Society: Michel Morange, Centre Cavallès, École Normale Supérieure

**15-18 May 2006** EMBL-Heidelberg  
Joint EMBL/Agilent Technologies practical course on Gene Expression Analysis using 60mer Oligonucleotide Microarrays

**15-20 May 2006** EMBL-Grenoble  
EMBO practical course on structural characterization of macromolecular complexes

**18-21 May 2006** EMBL-Heidelberg  
EMBO workshop on signals and mechanics in directed cell migration

**2-5 June 2006** EMBL-Heidelberg  
EMBO workshop on principles of self-organization in living matter

**7-8 June 2006** EMBL-Heidelberg  
Heads of Units Meeting  
Senior Scientists Meeting

**8 June 2006** EMBL-Heidelberg  
Alternative Careers Day

**4-9 June 2006** EMBL-Heidelberg  
Joint EMBL-GE Healthcare-GeneSifter practical course on expression profiling with the CodeLink™ system and data analysis with GeneSifter™