



Platypus genome sequence offers ticket back in time

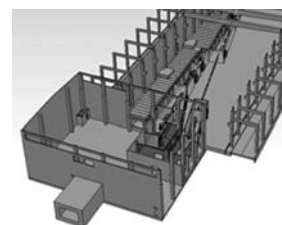
The bizarre-looking platypus has long been the subject of jokes, wonder and speculation; now, with the help of researchers at EMBL-EBI, its genome sequence has been published. It shows that the monotreme's odd appearance is reflected in the patchwork nature of its genes, which resemble those from other mammals, reptiles, and even birds, and provides the missing link in our understanding of how mammals first evolved. "It's more of a *mélange* than anyone expected," says the EBI's Ewan Birney.

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Time to shop! Go-ahead for PETRA III plans

With the go-ahead from its Scientific Advisory Board, the EMBL@PETRA3 team at the Hamburg outstation has now started the construction of three beamlines and an on-site sample preparation facility at DESY's PETRA III storage ring, the most brilliant X-ray source in the world. As well as building and operating the beamlines and running the facility, the team, led by Hamburg group leader Thomas Schneider, will manage an online data evaluation infrastructure, providing a complete pipeline for high-throughput structural investigations of molecules under one roof.

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"I had no idea what the day-to-day life of a scientist involves"

Arno Schrauwers, a freelance journalist from the Netherlands, and Vangelis Pratikakis, who writes for major Greek internet portal www.in.gr, chose to spend a week at EMBL as part of this year's European Initiative for Communicators of Science (EICOS) course. During the week, the journalists met with scientists from all units and heard about some of the main areas of research at EMBL. The EICOS course aims to improve communication between researchers and journalists, make the activities of scientists more intelligible to the public and to encourage feedback to the scientific community.

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Women scientists prove it's no longer a man's world

A mechanical engineer who longs to be an astronaut and a famous comet hunter captivated more than 100 school pupils with exciting tales from space at the first SET-Routes Insight Lectures at EMBL Heidelberg on 6 May. Maggie Aderin-Pocock, who leads a team making satellite sub-systems in the UK, and Elsa Montagnon, Spacecraft Operations Manager at ESOC, talked about their work and their experiences as women heading for the top. The Insight Lectures form part of SET-Routes' aim to present women scientists to young people, encourage more girls to take up science and dispel the myth that it is 'just for the boys.' "The more children of both sexes see of women in top scientific positions like these, the more they will accept it as the norm," says SET-Routes coordinator Julia Willingale-Theune.

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A first at Lab Day



Photo: Marietta Schupp

This year's Lab Day activities included the presentation by former Executive Director of EMBO John Tooze (above left) of the first John Kendrew award, which went to Antonio Giraldez (middle) and Giovanni Frazzetto. More pictures inside.

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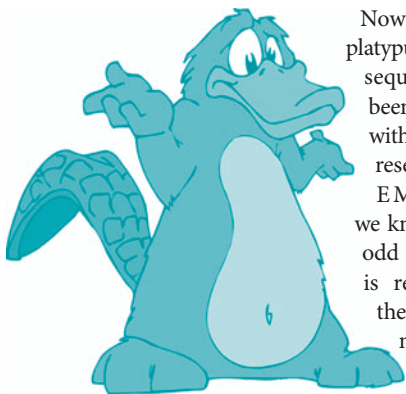
2 | First steps towards a bioinformatics infrastructure

3 | Flu image opens the way to antiviral drugs

3 | School students have fun at Monterotondo

Platypus genome sequence offers ticket back in time

“Do you think God gets stoned? I think so...look at the platypus,” quipped US comedian Robin Williams. This bizarre-looking animal has long been the subject of jokes, wonder and speculation; naturalist George Shaw, in studying the first specimen sent back from Australia in 1799, commented that it was “impossible not to surmise that there might have been practised some arts of deception in its structure” and set to it with scissors to make sure. Its very existence provides fuel for creationists: why else would such an apparently random mix of mammalian, bird-like and reptilian features crop up in nature, if not as an experiment with left-overs?



Now that the platypus genome sequence has been published with the help of researchers at EMBL-EBI, we know that its odd appearance is reflected in the patchwork nature of its genes,

which resemble those from other mammals, reptiles, and even birds and ends the controversy about where the animal sits on the evolutionary tree. “It’s more of a *mélange* than anyone expected,” says the EBI’s Ewan Birney. As Chris Ponting from the MRC Functional Genomics Unit at Oxford University says, “The platypus genome is the missing link in our understanding of how mammals first evolved.”

The platypus (*Ornithorhynchus anatinus*) is one of only two surviving monotremes (mammals that lay eggs – the echidna is the other), and was not only a desirable subject for sequencing because of its bizarre appearance, but also because it is the most distantly-related to humans of all mammals. It diverged from a common ancestor shared with us about 165 million years ago, and has many features unique to mammals: it has fur, for example, and rears its young on milk, though its specialised system of electrosensitivity in its bill is unique to monotremes.

But other, reptile-like characteristics exist: the females lay eggs, for example, and the males produce venom – which, curiously, exhibits the same proteins as in reptile venom, even though the poisons evolved independently.

Even more strangely, the gene sequences responsible for determining sex are more similar to those in birds than in mammals. The platypus has ten sex chromosomes – the most of any mammal sequenced so far – and one of its chromosome pairs contains units similar to the ZZ/ZW system found in birds. This also challenges the view that mammal and bird sex chromosomes evolved independently.

“This is our ticket back in time to when all mammals laid eggs while suckling their young on milk,” says Chris Ponting. “It also provides an essential background to future advances in understanding mammalian evolution.”

The sequencing was carried out as part of a large international research collaboration between scientists from the USA, the UK and Australia, and is published in the 8 May issue of *Nature*. It’s another good year for impressive work to come out of the EBI; their MIGS (Minimum Information about a Genome Sequence) standards paper in *Nature Biotechnology*, also in May, created a new guideline for describing genomes and metagenomes, and the institute was ranked second of the UK-based research institutions based on citation impacts 2003-2007 by Science Watch.

Europe’s bioinformatics community meets to agree first steps

The first plans for a sustainably funded infrastructure for biological information in Europe were laid at the first stakeholder meeting of ELIXIR (European Life-science Infrastructure for Biological Information) at the Wellcome Trust Genome Campus, Hinxton, on 10 April.

The meeting to discuss how to implement the ambitious mission of the EC-funded ELIXIR project – which is coordinated by the EBI – on a European scale was attended by 143 delegates from 27 countries. The atmosphere was one of optimism that progress is being made on shaping an effective infrastructure to safeguard Europe’s data resources. ELIXIR will support innovation in life science research and knowledge generation and facilitate their translation to medicine, the environment, the bio-industries and society.

Despite an appreciation of the challenges ahead, EBI Director Janet Thornton said at the meeting: “Bioinformatics and biological information are at the heart of today’s molecular biology. ELIXIR requires us to come together to define the process, objectives and scope for the life science infrastructure for biological information in Europe.”

Topics raised at the meeting included an

agreement on the need for the societal impact of bioinformatics-based research to be made clearer. User perspectives on the functionality of a future infrastructure and practicalities of governing such a network were also discussed.

It was agreed that the first steps of the project will be to secure funding from national organisations for an implementation phase that will turn the ELIXIR infrastructure into a reality.

ELIXIR project manager Andrew Lyall commented: “The high attendance of stakeholder groups from across Europe demonstrates the importance of this project for Europe’s existing and future biological data resources. We only hope that as word spreads, more people feel able to get involved, either as an individual or as the representative of their organisation.”

More information on ELIXIR and details on future stakeholder meetings can be found at www.elixir-europe.org.



Meet and eat!

EMBL staff from all sites mingled to enjoy talks, posters, awards, a theatre production, music, food, drink and a football game on 10 June, this year's Lab Day. The winners of the poster prizes were the Steinmetz, Kaksonen and Gilmour labs, and the day also saw the launch of the Alumni Wiki, a valuable new resource for career development (page 8). The graduation ceremony was, as always, a moving occasion, as colleagues watched 11 of their friends and peers receive their certificates from new Dean of Graduate Studies Helke Hillebrand and celebrate reaching the end of a long and hard road (below).

"Overall it was a great day. There were really interesting talks by the postdocs showing the breadth of work at EMBL, from modelling microtubules and DNA atoms to functional genomics and computational approaches," said group leader Eileen Furlong, one of the organisers. "As for the non-scientific parts, it was standing room only for the Theatre Group's production, *Oedi* – and the Spain v. Russia match afterwards was popular, too!"



Photos: Christina Panagoulidis

School's in for Monte

EMBL Monterotondo opened its doors to school students to enjoy daily activities on molecular biology in March and April.

Middle- and high-school pupils from the Rome area and further afield were absorbed by a forensic DNA fingerprinting kit, in which the students had to compare DNA from several suspects to identify a 'murderer' using DNA detection and amplification, restriction fragment length polymorphisms and fingerprint and blood type analysis. Another activity was the Nature's Dice kit, in which they analysed DNA samples from members of a family affected by a genetic disorder, assigned the proper genotype to each member of the family and then guessed the mode of inheritance of the disease. This led to discussions about the ethical issues behind parental screening.

"The visit requests from schools had been massive, so we decided to allocate a few weeks every year to them," explains Rossana De Lorenzi, science education officer at the EMBL European Learning Laboratory for the Life Sciences (ELLS). "The students took the tasks very seriously and were excited to visit a top research laboratory and perform wet lab activities wearing real lab coats!"



High-res influenza virus protein image opens the way to antiviral drugs

Viruses are masters of cunning when it comes to hijacking the host cell. Now, in the case of the influenza virus, scientists are one step ahead.

The groups of Stephen Cusack and Darren Hart at EMBL Grenoble, in collaboration with others in the joint Unit of Virus Host-Cell Interaction (UVHCI), have identified and produced a high-resolution image of a key component of the polymerase – PB2 – that copies the genetic material of the virus and multiplies it. PB2 steals an important 'cap' molecule from host cell RNA molecules to direct the protein production machinery towards the synthesis of viral proteins, and binds it by sandwiching it between its amino acids. They then misguidedly allow viral proteins to be made at the expense of host cell proteins.

The atomic resolution image of a PB2 domain bound to a cap they generated reveals these amino acids for the first time. Whilst their recognition mechanism is similar to other cap-binding proteins, its structural details are distinct. The influenza virus uses this cap – a modified RNA base which must be present at the beginning of all messenger RNAs (mRNAs) to direct the cell's protein-synthesis machinery to the starting point – "like a password to gain access to the cell's protein-making machinery for its own purposes," as Head of EMBL Grenoble Stephen Cusack puts it. The viral polymerase binds to host cell mRNA, cuts the cap off and adds it to the beginning of its own mRNA.

Collaborators at the Centro Nacional de Biotecnología (CSIC) in Madrid then showed

that disruption of the PB2 cap-binding site prevents the influenza virus from replicating, and all the findings led to a paper published in the 4 May issue of *Nature*. "This suggests that the PB2 cap-binding site is a promising target for anti-influenza drugs," says Darren. "Our new insights will help us design mimics of the cap that would inhibit viral replication and hence reduce the spread and severity of the virus."

The UVHCI comprises EMBL, the University Joseph Fourier and the National Centre for Scientific Research, also in Grenoble, and was launched last year to strengthen the collaborative work going on in viral structure and host biology between the outstation and its neighbours. Ties with Grenoble Hospital will bring patients into the picture too.

BIOXHIT ends on a high note



One hundred and thirty scientists from all across Europe gathered at EMBL Hamburg on 17-18 April for the fourth and final meeting of the €10 million EU Framework Programme 6 project BIOXHIT (Biocrystallography on a Highly Integrated Technology Platform).

BIOXHIT, which started in January 2004 and was led by EMBL Hamburg's Victor Lamzin and Manfred Weiss, brought together scientists from all European synchrotrons and leading software developers from both academia and industry in a timely and unprecedented joint effort. It aimed to take the best of current technologies at major European centres for research in structural biology, and consolidate them into an integrated platform for high-throughput structure determination using X-ray crystallography with synchrotron radiation. From here, new methods and technologies were developed and expert knowledge spread throughout Europe.

"Overall, BIOXHIT has been very successful," says Victor. "Not only did it serve as the seed to make all European synchrotrons collaborate towards a common goal, but it also produced new technologies, many of which are already fully accessible to the wider life sci-

ences research community, numerous scientific publications and a training structure which is unique worldwide."

During the project's four-and-a-half year lifetime, more than 200 researchers, with 66 funded by the project, have been working on BIOXHIT goals at the various partners' institutions. In total, BIOXHIT has supported 135 EC-funded person-years.

The meeting was preceded by a one-day conference, 'Synchrotrons and Lasers for Structural Systems Biology', at which international experts in the field predicted the future of structural biology once state-of-the-art new X-ray sources become available.

What the future holds is not yet certain, but everyone involved was convinced that the momentum and developments of BIOXHIT should not stop with the end of the project. The hope is that the EC will see the opportunities that a follow-up project will present for structural biological research in Europe. "BIOXHIT's developments not only affect the synchrotron and methods development community, but have begun to make a real impact in biological and medical research," says Victor.

And you thought work was a way of escaping the kids...

Sunday 30 March was 'open house' at EMBL Grenoble, as around 30 families of staff came to find out what mum or dad does every day. An event that occurs every couple of years on the shared EMBL/ESRF/ILL campus during beamline shutdown, it allowed spouses and kids to visit the microscopes and storage ring and to learn a bit about structural biology. After the visit, coffee and cakes were served to the adults while the children charged noisily up and down the perfect 'runway' provided by the hallway. "It's such a nice change from a normal working day," commented Administrative Officer Mary-Jane Villot.



Research Technician Delphine Guilligay and family at the open day



L-r: Cologne-based teacher trainer Prof. Dr. Klein gets to grips with the microscope; having fun with the Protein Folder kit; teachers Carmelina Marrone and Grit Spremberg proudly display their crystals

Teachers explore the structures of life – ELLS in Hamburg

EMBL Hamburg hosted its first European LearningLAB for the Life Sciences (ELLS) teachers' workshop – and the first to be held in German anywhere – on 24-26 April.

Seventeen eager teachers from Germany, Austria, Belgium and Sweden came for the course, entitled 'Strukturbiologie – ein Blick auf die Chemie des Lebens' ('Structural Biology – Deciphering the Chemistry of Life'). Like other LearningLABs, the aim of the event was to help the teachers understand the subject better and to take related activities back to their classrooms.

Several volunteers helped organise the

course alongside ELLS Education Officers Alexandra Manaia and Philipp Gebhardt. Hamburg group leaders Jochen Müller-Dieckmann and Manfred Weiss gave talks and participated throughout the course, and their PhD students Hubert Mayerhofer and Linda Schuldt helped with the activities, which included protein folding and producing lysozyme crystals. Aidan Budd and Klaus Scheffzek from EMBL Heidelberg also contributed presentations, and Roman Hillig from Bayer-Schering Pharma was in attendance to talk about the role of structural biology in drug

development. Parts of the course took place at the International School in Hamburg, thanks to participating teacher Sally Draper-Though, and the visitors also enjoyed a visit to the beamlines and a Hamburg night out.

"It was a very successful LearningLAB, in particular because we were able to use the additional facilities at the International School," said Philipp. "The course being in German, too, meant that the teachers could express themselves fully. Additionally, all the speakers made the effort to design their talks to appeal directly to this audience."

Library website sporting EMBL 'strip'

If you've checked out the Szilárd Library website in the last few days, you'll notice that it's now proudly sporting the EMBL green livery and design, bringing it in line with the rest of the site.

It's an online reflection of the sterling work new librarians Anne Barkworth and Tobias Sack have been doing since taking over last year. Like the real library, the website is much easier to navigate: the menu has been cleaned up so you can access your favourite features more quickly. "To begin with you may notice that there are fewer links, but as we determine which are relevant, we'll put them back," says Tobias. "If you find that a link is no longer available and you want it back, please let us know."

In addition, new cataloguing software is being implemented and will be available by the autumn. This will feature a dynamic link to the database so you'll always access the most up-to-date information. A more secure personalised user information system will let you

track borrowing and ordering, and it even has a shopping basket. More information will be forthcoming when the new system goes live.

The two librarians agree that customer service has been their main priority as they've streamlined the system, both online and off. "We have had lots of compliments about our speed and efficiency," says Anne. "Tobias' stellar document delivery service is particularly appreciated. As we know the scientists are busy, it's no trouble to deliver something by hand when it arrives."

Such face-to-face service also helps the librarians feel more in touch with the lab. "We get to see what people are up to and, having seen their bookshelves, make suggestions," says Anne. "We've also tried to make the library more visible to and useful for the outstations."

"We'd like everyone to know that they can come and ask us anything at any time – and if we don't have something you're looking for, we can

get it for you," adds Tobias. "We're always here to answer your questions, and we don't bite!"

Check out the new-look site at www.embl-heidelberg.de/services/library. The front page is worth checking frequently as it informs you of new trial accesses and subscriptions.



Top women space scientists prove it's no longer a man's world

A mechanical engineer who longs to be an astronaut and a famous comet hunter captivated more than 100 school pupils with exciting tales from space at the first SET-Routes Insight Lectures at EMBL Heidelberg on 6 May.

SET-Routes, the FP6-funded collaboration between EMBL, CERN and EMBO that encourages young women to pursue scientific careers, invited Maggie Aderin-Pocock, who leads the optical instrumentation group at Astrium Ltd in Portsmouth, UK, and Elsa Montagnon, Spacecraft Operations Manager (SOM) at ESA's European Space Operations Centre (ESOC) in Darmstadt, to talk to the

mostly 17-year-old visitors from two schools in the area. These Insight Lectures form part of SET-Routes' aim to present women scientists to young people, encourage more girls to take up science and dispel the myth that it is 'just for the boys'.

Maggie has designed instruments ranging from hand-held land mine detectors to a multi-million pound spectrograph, and at her company in Portsmouth she works alongside ESA making satellite sub-systems to monitor wind speeds in the atmosphere. As well as talking about her work and how space science can help monitor natural disasters like hurricanes and climate change, she challenged the traditional view of scientists and provoked the audience to ask questions about her personal experiences as a scientist and a black woman. "People still find it surprising, but it's not a barrier. There are no barriers," she concluded. An engaging and enthusiastic speaker, Maggie has a grant from the Science and Technology Facilities Council to communicate science and has done a lot of TV work in the UK.

Elsa "Comet Hunter" Montagnon is one of the only women in mission control at ESOC, and she talked to the audience about her team's project: Rosetta, the first spacecraft to follow a comet and land on it, and the farthest European probe in space so far. She dispelled some myths about mission control that the audience may have assumed from films – that

rather than sitting back and watching a bank of computer screens, her team has to carefully plan and monitor every event on a mission, sending detailed instructions to the craft, updating software and even training successors to take over, as the journey will last 10 years.

"The more children of both sexes see of women in top scientific positions like these, the more they will accept it as the norm," says SET-Routes coordinator Julia Willingale-Theune.

SET-Routes will run eight more Insight Lectures events at both EMBL Heidelberg and at CERN, which organises this particular work package. Like May's lectures, each event will be based on a specific broad theme in science and will invite top-class female speakers. All will be filmed and made available via the website, www.set-routes.org.

"When you're doing science well, race, creed, colour and gender don't matter"

Maggie Aderin-Pocock



Maggie Aderin-Pocock, left, and Elsa Montagnon



BioSapiens school is exercise in problem-solving

An enthusiastic band of 37 students (below) participated in the 8th BioSapiens European School in Bioinformatics on 11-16 May, which was held at the EBI.

Hosted biannually in a different country every time, the BioSapiens schools, which are funded by the European Commission as part of the BioSapiens Network of Excellence, provide an opportunity for students to actively approach and resolve biological problems using bioinformatics. The focus of the EBI course was using Europe's core biological data resources and associated tools to analyse biological data.

Each day focused on a particular theme – the distributed annotation system (DAS) for biologists, sequence searching, genomes and proteomes, and structures

and proteomics – to introduce students to the resources available.

Even after five intensive days of work, the students were still asking for more, and were keen to convey their huge appreciation for the EBI trainers, who were on hand throughout the course to answer any questions and provide guidance. One participant commented that a particularly memorable aspect of the school was “most certainly the friendliness of the trainers”. Another student summed up: “As a student who has just finished my first degree, this was a great opportunity to equip myself with a lot of tools I didn't know about.”

You can find information about the BioSapiens Network of Excellence and the 9th European school at www.biosapiens.info.

– Louisa Wright



Photo: James Watson

So what is it you do, then?

People were able to put jobs to faces at a joint EBI-Sanger Institute Services Day that took place on the institutes' shared home, the Wellcome Trust Genome Campus, on 14 April.

This annual event strengthens ties between the two institutes and allows further scope for collaborative efforts. On the day, attendees heard about the shared challenges that next-generation sequencing projects are posing: for example, in a period lasting just three weeks earlier this year, the Sanger Institute generated and submitted as much data to the EBI as the latter had previously held! With such massive levels of data emerging, plans to achieve a robust and scaleable information infrastructure to manage them are top of the priority list for both institutes.

There were also spotlights on the more specialised activities performed at both institutes. Recently appointed EBI team leader Christoph Steinbeck presented the outlook for small molecule metabolism and the Chemical Entities of Biological Interest resource, and the day's final session addressed developments in literature services and data mining. For those not presenting their work on stage, members of staff from both institutes displayed posters illustrating their recent work.

“New data, new challenges: that's the day-to-day business of our services. The day's presentations and posters show world-class teams rising to these challenges,” commented EBI Associate Director Graham Cameron.

– Louisa Wright

science&society

What can my personal genome do for me?

This and other such questions were on the agenda at the second EMBL-EBI Science and Society symposium in Cambridge on 23 May, entitled ‘The Personal Genome – Hopes, Facts and Fears’. Recent advances in genomic sequencing technology mean that people can now buy a rough scan of their genome or even have it entirely sequenced. Companies claim the information should help customers learn about themselves and improve their health, while many basic researchers and ethicists wonder whether these services may give rise to problems such as discrimination.

Speakers at the half-day event, which took place at Fitzwilliam College, included geneticists, social scientists and anthropologists, and

the talk led to animated and thought-provoking discussion sessions. “There were about 120 audience members, mostly from the EBI, the Sanger Institute and Cambridge University, but also a few members of the public and people from industry,” said PhD student Gregory Jordan, who got involved in the Science and Society programme following last year's PhD core course and, along with fellow student Melanie Stefan, helped organise the event from the EBI side. “While most of the speakers came with the ‘sceptical’ point-of-view, it was nice to hear from Agnar Helgason from deCODE Genetics, one of the companies actually offering the personal genome service, who balanced the day by giving the commercial perspective, though in a true and scientific way.”

Greg received lots of positive feedback from the audience. “A sociology student who is studying women who have undergone genetic testing for breast cancer said it was really useful to get the bigger picture about personal genome services and hear all the concerns and arguments,” he says. “The discussion at the end of the talks was the highlight – it was lively, really tied everything together, and had to be stopped before it carried on all night!”

The next Science and Society event is a Heidelberg Forum lecture by Elizabeth H. Blackburn, ‘Telomerase and the Causes of Aging’, at the Print Media Academy on 17 July. See www.embl.org/aboutus/sciencesociety for details.

Time to shop! Go-ahead for PETRA III plans

A meeting of the Scientific Advisory Board to the EMBL Hamburg's EMBL@PETRA3 project on 15 April initiated the next step – shopping – for the outstation's new beamlines and service facility at the new synchrotron.

A team at the outstation, led by Hamburg group leader Thomas Schneider, will build two beamlines for protein crystallography and one for small-angle X-ray scattering as well as running a on-site sample preparation facility at the PETRA III storage ring, currently under construction at the German synchrotron research centre (DESY). Operational from 2010, PETRA III will be the most brilliant X-ray source in the world.

Before starting work on the facility, the Hamburg team sought the advice of an international advisory board made up of beamline scientists from labs and synchrotrons in Europe, the US and Japan, as well as future users. The board chairs were Liz Duke from the UK's DIAMOND Synchrotron and Dino Moras from IGBMC in Strasbourg, France.

At the meeting, the EMBL@PETRA3 team presented their plans to the board. As well as

building and operating the three beamlines and running the sample preparation facility, the team will also manage an online data evaluation infrastructure, providing a complete pipeline for high-throughput structural investigations of molecules under one roof.

The plans were then presented to the DESY Photon Science Committee, a review panel consulting the DESY directorate, on 8 May and approved.

“We’re now starting to order the various bits and pieces for the beamlines and we are happy to finally begin with the actual construction phase after a long period of planning,” said Thomas. “EMBL@PETRA3 is very grateful for the advisory board’s valuable input.”



PETRA III's 280m experimental hall

Time out for Hamburg

Nestling in fields of brilliant yellow rape-seed and overlooking a tranquil lake in the state of Mecklenburg Vorpommern is the medieval castle of Ulrichshusen, the ideal setting for EMBL Hamburg's faculty retreat on 28-29 April. The presentations and discussions covered a wide range of topics including important new advances in development of the PETRA III beamlines, online resources such as RAPIDO and Auto-Rickshaw, and aspects of Hamburg's outreach and dissemination programme, for which Matthias Haury from EICAT, Lena Raditsch from OIPA and Phil Irving from the Grants Services joined us from EMBL Heidelberg.

Despite the full agenda, we found time to appreciate our picturesque surroundings. Without telephone or internet connections, we could almost believe we were back in 1562 when the castle was built, and the evening meal of suckling pig only heightened the illusion.

– Rosemary Wilson & Matthias Wilmanns

“I had no idea what the day-to-day life of a scientist involves”

Two journalists got a taste of life at EMBL Heidelberg for a week in May as part of a course run by the European Initiative for Communicators of Science (EICOS).

Arno Schrauwers, a freelance journalist from the Netherlands, and Vangelis Pratikakis, who writes for major Greek internet portal www.in.gr, chose to spend their placement at EMBL after being selected to take part in this year's EICOS course. Open to journalists from all over Europe, the course, which is not restricted to those with a scientific background, aims to improve communication between researchers and journalists, make the activities of scientists more open and intelligible to the public and to encourage feedback to the scientific community.

During the week, the journalists met with scientists from all units and heard about some of the main areas of research at EMBL. Arno, whose background is in chemistry, mostly writes for technical and engineering journals, as well as a couple of Dutch newspapers. “Some parts were a bit too complicated for me,” he said. “I wanted to come to EMBL because I'm particularly interested in synthetic biology and whether people can create life. At the molecular scale it gets closer to the areas of chemistry and physics. At some point they meet; when, and what will come out of it?”

Vangelis was a bit more at home at EMBL, having studied biology, but even he found

some talks hard to understand. “A lot of the stuff I've been hearing about is new to me because it wasn't known about when I was studying,” he said. “I'd heard of EMBL; it's pretty well known, and Fotis (C. Kafatos, former DG) is quite a celebrity in Greece.”

Though flummoxed at times, they were both inspired by what they heard. “Before, I had no idea whether I would get a story out of the week here or not,” said Arno. “But I heard some interesting stuff – in particular about molecular motors, with some marvellous movies, and the evolution of nervous systems – and those are interesting subjects even for the layman. I didn't expect to find a ready-made story, because basic biology is a starting point.”

“It's a difficult job to translate this kind of

biology into a language that everyone will understand,” agrees Vangelis. “But it's an important job, and the EMBL press office does it very well.”

As well as leaving armed with some science stories to follow up, the journalists were able to see for themselves how a lab like EMBL works. “It's interesting to see what EMBL looks like and what people actually do in a working day. We had no idea what the day-to-day life of a scientist involves.”

EICOS was founded in 1991 and is run from the Martinsried campus where two Max Planck Institutes and the Gene Centre of Munich University are located. Participating journalists can choose to spend time at any of 16 research institutes across Europe.



Arno (left) and Vangelis take time out

Alumni facts...
82% of alumni with known employment work in academic research, and **11%** work in the commercial sector

The EMBL Alumni Wiki: a new online careers resource

The end of your contract at EMBL is a daunting time. Where will you go? What will you do? How do you start setting up a lab? What about the family? If you're an alumni, you've already been through all that, and you may have some helpful tips to share. Either way, check out the new EMBL Alumni Wiki, the new online careers resource which was launched at Lab Day at EMBL Heidelberg on 10 June.

The site, aimed at leavers of EMBL and other movers who can benefit from the experiences of those who've done it all before, is based on the Wikipedia model and consists of two major sections. The first provides general advice from a questionnaire in which alumni were asked about their first position after EMBL and the transition into their new role. This section also includes links to the EMBO Young Investigator Programme, the ELSO Career Development site, the Howard Hughes Lab Manager Handbook and advice on grant writing. There's also information about finding a mentor among the alumni.

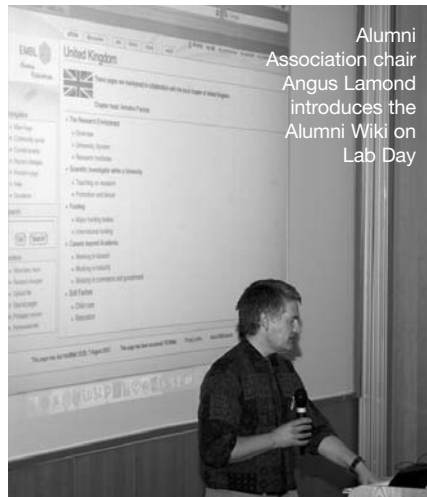
The second section, "The Chapter View", provides country-specific information about research environments and funding opportunities. This section also includes information on working in industry and biotech, as well as more practical aspects of working in a specific country, such as how to arrange childcare.

"The alumni wiki will serve as a tremendous tool in bringing together the collective

experience of EMBL's staff," says project manager Colin Dingwall. "It will help scientific and non-scientific users alike make a successful, smooth transition from EMBL."

All EMBL staff and alumni can access it via the Alumni Association homepage or at <http://alumniwiki.embl.org>, and are invited to contribute to these topics or suggest new ones. Please send items to Manuela at the Alumni Association (alumni@embl.org).

The Association would like to thank the two board members who have been the driving force behind this initiative: Colin Dingwall as its project manager, and Giovanni Paoletta as its IT architect, who set it all up.



Alumni Association chair Angus Lamond introduces the Alumni Wiki on Lab Day

It is with deep regret that we inform the EMBL community of the death of Angel Ramirez Ortiz, head of the Bioinformatics Unit of the Center for Molecular Biology "Severo Ochoa" in Madrid, on 5 May 2008. Angel was a PhD student at EMBL from 1992 until 1996, working with Chris Sander and Rebecca Wade.

Please mark your diaries with the following events and opportunities:

- The deadline for the 2008 John Kendrew Young Scientist Award is 12 September 2008. All former EMBL pre- and postdocs are invited to apply for the €1,000 cash prize, and nominations are also welcome. Go to www.embl.org/kendrew_award.html for more information.
- The Alumni Association Board elections will take place later this year. All Alumni Association members are invited to vote online between 15 August and 30 September. More information on the candidates will be available by end of July on the alumni website and will be circulated by e-mail.
- An EMBL/Alumni event at the Royal Swedish Academy of Sciences will be held on Friday, 19 September. The event – funded by the Swedish Research Council and organised by Anna Ledin and Manu Brunner – will focus on EMBL's outstanding opportunities for scientists. Speakers include Iain Mattaj, Carl-Henrik Heldin, Bernt-Eric Uhlin, Linda Sandblad, Klas Kullander and Johan Kreuger. More details on the website soon.

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.de.

All set for ESOF

EMBL is all set for some major visibility at this year's Euroscience Open Forum (ESOF) event, 'Science for a Better Life', in Barcelona on 18-22 July. EMBL DG Iain Mattaj will chair a session on research infrastructures and participate in one about the European Research Council; *Science in School* editor Eleanor Hayes will organise one on improving science education in schools; and both EMBL and EMBO will run sessions on science and media communication. If you'd like to attend, register at www.esof2008.org.

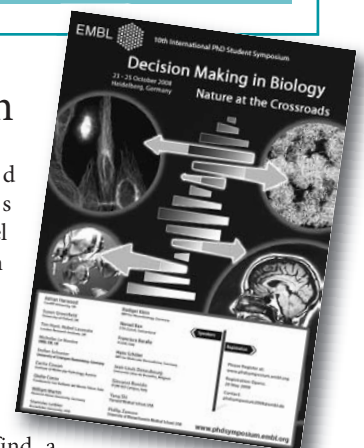
PhD symposium – a good decision

The most recent intake of PhD students are already busy planning the 10th EMBL PhD symposium, 'Decision Making in Biology – Nature at the Crossroads', which will be held on 23-25 October at EMBL Heidelberg. "The symposium will explore how biological systems integrate different factors and decide whether to change to a new state or stay in the same one," explains Judith Zaugg, one of the organising committee. "We want to provide an overview of what determines a 'decision in biology' at several levels of complexity, from molecules to populations, moving through cells and organisms."

Invited speakers include Nobel Laureate Tim Hunt and Stanislas Leibler from Rockefeller University.

You can find a complete list of speakers and more details at www.phdsymposium.embl.org.

The EMBL PhD Symposium is an annual event organised by students for students.



newsinbrief

❑ **Free courses in the EMBL** Non-Scientific Training and Development Programme include Minute taking (25 June, Heidelberg); 121 Presentation (1-2 July, Heidelberg); Media Training (7 July, EBI); Excel Beginners (1-2 September, Heidelberg, in German); Outlook Advanced (5 September, Heidelberg); Time Management (10 September, EBI). E-mail td@embl.de or visit www.embl.org/staffonly/personnel/training_dev/index.html for more details.

❑ **Registration is now open** for the EBI's hands-on bioinformatics training courses on Programmatic Access to Proteomics Resources (28-31 July), Interactions and Pathways (26-27 August) and the first ENFIN advanced course on methods for protein function prediction (1-3 September). The first course on Programmatic access in Perl: webservice & work flows will be held on 8-10 September followed by a Java-based course from 24-27 November. Visit www.ebi.ac.uk/training/handson for more details and to register.

❑ **Have you got a great group leader?** Why not nominate him or her for the 2008 Nature Awards for Mentoring in Science, which this year focuses on researchers in Germany? If your boss is resident in the country and you can gather at least five independent testimonials about how won-

derful they are, they may be in with a chance of winning one of two prizes of €10,000. They have to be consistently fabulous, though – the testimonials have to come from previous colleagues as well as current ones. Visit www.nature.com/nature/awards/mentorship for more details. The closing date is 4 July.

❑ **The Oldtime Jazz Connection** (pictured) helped the ISG Hotel in Boxberg to celebrate the reopening of their Biergarten for the summer on 1 May. Whether you're visiting Heidelberg from out of town or simply want



to take a break from the bench locally, you can make the most of the southern Germany sunshine and the family atmosphere from 4pm Monday to Saturday.

❑ **Fancy trying your hand** at a bit of translation? Science in School, the EMBL-based

European journal for science teachers, is always pleased to hear from non-native English speakers willing to translate articles from English to their native language for the website, www.scienceinschool.org. You'd be helping teachers in your own country get the most out of the journal, which features cutting-edge science, interviews with scientists and teachers, teaching activities and much more. Visit the website or contact Eleanor Hayes or Marlene Rau at editor@scienceinschool.org for further details.

❑ **EMBL's activities** were presented to Belgian students at a 20 May job fair and workshop organised by BeABLE Sciences, an initiative launched in 2007 which aims to promote biotechnological, life and environmental sciences and help young Belgian scientists advance their careers. EICAT Coordinating Manager Matthias Haury answered questions and gave out information about EMBL to many interested students at the event, which was entitled 'Mobility in a scientific career: aims, constraints, choices and stakes' and took place in Brussels.

❑ **The interior work on the new NMR building** at EMBL Heidelberg has now begun, and it is planned that the building will be finished by 1 July. The magnet itself is still undergoing engineering tests and will be installed soon.

Jobs for the girls... and one for a boy

As part of Girls' Day, a European initiative to give schoolgirls a taste of what are thought to be traditionally 'male' jobs, EMBL Heidelberg was host to 19 girls from 5th to 10th grade – and one boy – on 24 April.

The girls, most of whom were the daughters of staff members, shadowed workers in IT services, the core facilities, the photolab, the mechanical workshop and other departments,

while the boy spent the day learning about the life of a childcare assistant in the Kinderhaus. Previously, EMBL has always hosted individual girls on Girl's Day, but this was the first year that the opportunity was extended to several children at once.

The event was organised by the Office of Information and Public Affairs, who would like to thank everyone who hosted a young visitor.

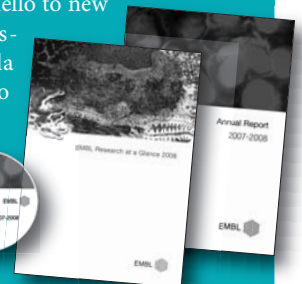


Photo: Christine Paragiotidis

Hot off the press

Keep up-to-date with research at EMBL with the latest editions of the Annual Report 2007-2008 and Research at a Glance 2008, which are available after the 1 July council meeting as hard copies or on the website. These documents, as well as Facts and Figures 2007 and last year's press releases, are also available to take away on a handy CD.

If you do find yourself scouting around the OIPA corridor either for the aforementioned brochures, some EMBL-brand stationery goodies or simply some tea and sympathy, say hello to new OIPA administrator Angela Michel, who starts on 1 July.





Developmental Biology's latest faculty addition, **Stefano de Renzis**, qualified in medicine at the University Federico II in Naples in 1997, and then went on to do his PhD at EMBL Heidelberg. Having spent the last few years as a postdoc at Princeton University, he's back to lead a group looking at how machineries controlling intracellular trafficking are tuned during cell differentiation and how this differential tuning controls tissue morphogenesis. Using *Drosophila* and a combination of genetics and microarray approaches, they'll identify the cell biological basis underlying protein targeting pathways in the mesoderm.

New group leader **Paul Heppenstall** completed his PhD in 1997 at the University of Edinburgh, UK and went on to do a postdoc at the Max Delbrück Centre in Berlin, after which he became Junior Professor at the Charité, also in Berlin. His group at Monterotondo will study somatosensation, the process by which we sense touch and pain. They'll employ genetic approaches, electrophysiological and molecular imaging techniques to explore the properties of peripheral sensory neurons and identify novel genes involved in somatosensation.



Paul Kersey has been appointed Team Leader (Data Flow) in the PANDA (Protein and Nucleotide Database) group at the EBI. Paul obtained his PhD researching the cell cycle of fission yeast; since coming to the EBI, he has worked with complete genomes data in a number of projects. In his new role, he will oversee the development of Ensembl Genomes (the expansion of Ensembl beyond vertebrates) and will have general responsibility for data flow between the different resources maintained by PANDA. When not at the EBI, he can usually be found trying not to fall off a mountain.



↔ **James Watson** has joined the Outreach and Training Team at the EBI as Scientific Training Officer after working on the prediction of protein function from structure as a postdoc in Janet Thornton's group. This followed a Biochemistry degree and a PhD in Bioinformatics at the University of Glasgow.

⇒ New personnel officer **Matija Grgurinovic** is from Zagreb, Croatia and has a Bachelor degree in sociology. Before coming to EMBL he worked at recruitment companies. He can be found in Personnel's general office dealing with reimbursements and benefits.



awards&honours

This year **Marianne Uteng** from the Surrey group at EMBL Heidelberg became the first EMBL student to be awarded a PhD jointly with the University of Oslo. She defended her thesis, Dynamics of the Mitotic Molecular Motor EG5, at the university on February 27.

The **East Wing extension** at the EBI has won a 2008 Excellence in Design Award from the American Institute of Architects (UK chapter). The award, which recognises the architectural achievement of new projects involving trans-Atlantic partnerships, was presented to the EBI's Mark Green and Bruce Nepp, director of architectural firm NBBJ, at Canary Wharf, London on 8 May.

Two group leaders from the CRG-EMBL Partnership Unit for Systems Biology, **Ben Lehner** and **Mark Isalan**, have been awarded European Research Council Young Investigator Grants in the first round of this new EU funding scheme for individual researchers. The partnership between EMBL and the Barcelona-based Centre for Genomic Regulation started in 2006.

EBI Research Officer **Greg Pau** has recently been elected as junior research fellow at Wolfson College, Cambridge University. The prestigious fellowships are open to those finishing or about to finish a PhD.

1-3 July EMBL Heidelberg
Summer Council Meeting

13-18 July EMBL Heidelberg
Course: A joint EMBL/Agilent Technologies practical course on Integrated Biology – microarray-based microRNA and Gene Expression profiling

18 July EMBL Heidelberg
EMBL Distinguished Visitor Lecture: Telomeres, telomerase and their control. Elizabeth H. Blackburn, University of California, San Francisco

21-24 July EMBL-EBI
Course: Computational Proteomics: a programmatic perspective

5-6 August EMBL Heidelberg
First Aid course for beginners

23-27 August EMBL Heidelberg
Conference: 8th EMBL Transcription Meeting

24-31 August EMBL Heidelberg
Course: EMBO practical course on cryo-electron microscopy and 3D-image analysis

25-30 August EMBL Heidelberg
Course: Science and Society Summer School (E4S). Deconstructing and Reconstructing Life: From classification to design

1-3 September EMBL-EBI
Workshop: Joint EBI-ENFIN workshop – Protein function prediction tools

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

from the Staff Association

☐ **Meet your Council delegates** in the Heidelberg canteen on 1 July between 12pm and 1.30pm. This is your chance to discuss topics which affect you and get the news from home. EBI staff will be the next to have the opportunity to meet the delegates face-to-face at the Winter Council meeting in Hinxton on 24-27 November.

☐ Make a note in your diaries of the **Oktoberfest** (11 October). If you'd like to plan a themed party for staff, please contact Catherine Floyd at the Staff Association office or your local representative (see website, below).

☐ The Staff Association covers all categories of staff and has representatives at all outstations. Keep up-to-date with the Staff Association websites: www.embl-heidelberg.de/~staff/ (and for retirees, www.embl-heidelberg.de/~staff/pensioners/).
– Catherine Floyd