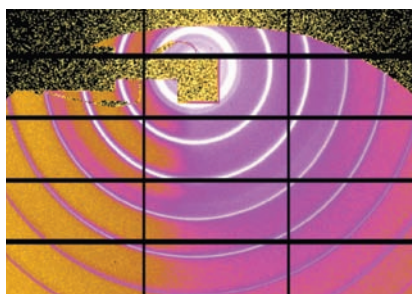


# EMBL etcetera

Issue 63 • June 2011 • [www.embl.org/newsletter](http://www.embl.org/newsletter)



## Light fantastic

They say beauty is in the eye of the beholder, and when the team at EMBL Hamburg saw the first scattering pattern of the new small angle X-ray scattering synchrotron beamline, BioSAXS, they wouldn't have argued.

This milestone, achieved on 27 May at the PETRA III high-brilliance synchrotron radiation facility, takes them one step away from performing first experiments on protein solutions.

Over the coming weeks the team will continue to integrate new technologies developed in trilateral collaboration with EMBL Grenoble and the ESRF.

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## Discovering a living legend



Postdoc Elia Benito-Gutierrez locates some intriguing sea creatures, page 7

## 'Blood type meet bug type'

... so a *New York Times* journalist summed up groundbreaking research by EMBL Heidelberg's Bork Group into gut bacteria

According to the study of more than 100 people, humans have three different ecosystems of gut bacteria. The discovery could hail a new way to classify humanity, with implications for disease diagnosis and medical treatment. The research attracted a significant amount of media coverage, featuring prominently in newspapers, magazines and other platforms.

find out more on page 3



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Science, posters, parties at Lab Day and Career Day

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Understanding the placebo effect

## Spirit of collaboration

EMBL further strengthened links with scientific organisations in Russia on 26 April, signing a Memorandum of Understanding with the Skolkovo Foundation to develop collaborations in key areas of research.

Iain Mattaj, EMBL Director General, and Igor Goryanin, Director of the Biomedical Cluster, Skolkovo, formalised the framework agreement at a meeting of the board of trustees of the Skolkovo Foundation, chaired by Russian President Dmitry Medvedev.

The Foundation is a non-profit organisation that, on behalf of the Russian Federation, is dedicated to the development and com-



Igor Goryanin signing the agreement with Iain Mattaj

mercialisation of new innovations and the creation of a new 'science and technology city' in the Moscow suburb of Skolkovo.

As envisaged by the collaboration, EMBL and the Skolkovo Foundation will work together on mutual goals, such as the development of scientific exchanges, collaborations,

and joint projects between EMBL and laboratories and research organisations in Russia.

The agreement was followed by a visit to EMBL Heidelberg by Chris Janssen, Director of science and education at the Skolkovo Foundation on 8 June. Chris met with directors and senior managers from EMBL and its sister organisation EMBO, discussing issues such as the potentialities of the MoU and future opportunities for further collaboration.

In December last year EMBL signed a Memorandum of Understanding with the Russian Foundation of Basic Research, expressing significant interest in Russia becoming an EMBL member state. Close links are already established through collaborations in the Lamzin, Svergun, Schultz and Arendt groups.

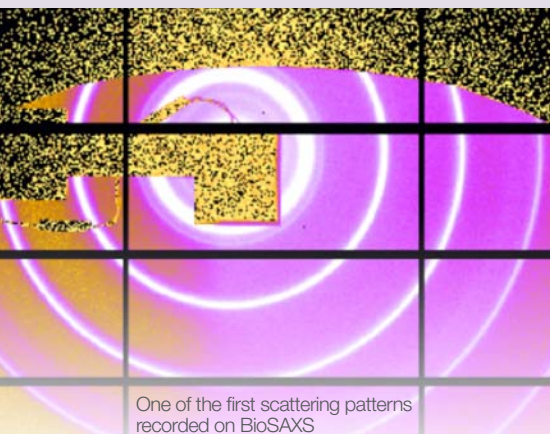
## Brilliant result

EMBL Hamburg celebrated yet another milestone on the PETRA III high-brilliance synchrotron radiation source last month, taking them one step away from performing first experiments on protein solutions.

On 27 May, the first scattering patterns were recorded on the small angle X-ray scattering synchrotron beamline, BioSAXS. Using the SAXS standard calibrant, silver behenate, they achieved good quality results, despite the beamline not yet being fully optimised.

"The absence of prominent higher harmonic scattering at this stage where we have not yet installed X-ray mirrors is a promising signal for solution scattering experiments now under preparation," explains project leader, Manfred Roessle. "I'm grateful to all colleagues who helped achieve this milestone."

Over the coming weeks, the team will integrate the sample changer (designed and constructed in a trilateral collaboration between EMBL Grenoble, ESRF and EMBL Hamburg) and the automated data analysis pipeline, developed by the EMBL Hamburg SAXS group.



One of the first scattering patterns recorded on BioSAXS

## Grand tours of EMBL

VIPs have been welcomed to EMBL sites thick and fast in recent weeks to discuss opportunities such as partnerships and new scientific developments, meet senior scientists and see EMBL's scientific facilities. Distinguished guests have included Sir John Savill, Chief Executive of the UK's Medical Research Council; Edwina McGlenn and Peter Currie from EMBL Australia; Atsushi Fukumoto, Michio Oka and Kenji Tanaka from the Sony Corporation; Jan Grapentin, German delegate to the EMBL Council; and Graham Woodrow of the Commonwealth Scientific and Industrial Research Organisation (CSIRO).



Left to right: Director of International Relations, Silke Schumacher; EMBL Heidelberg group leader Marcus Heisler; Director of Health Technologies Strategy at CSIRO, Graham Woodrow; Director of Core Facilities and Services, Christian Boulin

## From patient to bench and back

The Molecular Medicine Partnership Unit (MMPU) held an open research day on 7 June at Heidelberg University's Centre for Molecular Biology (ZMBH), giving scientists an opportunity to share the latest progress in translational medicine.

Representatives from the international research teams that form the partnership, as well as six invited guest speakers, presented recent findings on such diverse topics as chronic pain, HIV, iron homeostasis, aging, balanced chromosome rearrangements, blood coagulation and cystic fibrosis.

A joint collaboration between EMBL and the Medical Faculty of Heidelberg University, the MMPU has produced valuable insights into the mechanisms underlying human

diseases. Each of its five teams is co-headed by an expert from both institutions.

Set up in 2002 by EMBL's Matthias Hentze and Heidelberg University's Andreas Kulozik, the unit promotes the establishment of links between research groups, with the aim of transferring ideas from patient to bench and back.

EMBL Heidelberg group leader Anne-Claude Gavin, one of the guest speakers, has recently entered into a collaboration with the Medical Faculty's Anthony Ho to study the early warning signals of aging in human stem cells. She said: "The collaboration allows both institutions to mutually benefit from outstanding expertise and technology. It will enable us to direct the research in our lab towards medically relevant questions."

# Gut instinct

One day, your doctor might ask not just about your allergies and blood group, but also about your gut type. Peer Bork's group at EMBL Heidelberg and collaborators in the international MetaHIT consortium have found that humans have three different ecosystems of gut bacteria. They also uncovered microbial genetic markers that are related to traits like age, gender and body-mass index.

Based on data from more than 100 people from three continents, the scientists found that, depending on the combination of bacteria in their gut, each person could be said to have one of three gut types, or 'enterotypes'. "When blood groups were first discovered, they were a curiosity with no real application, but when transplants entered the picture,

Groundbreaking research by the Bork Group identifies different ecosystems of gut bacteria that could influence medical treatment

blood groups became very important," Peer points out. "Similarly, knowing that we may have different gut types is an interesting starting point."

Although these gut types aren't related to age, weight or nationality, Peer's group discovered that certain bacterial genes are. "The fact that there are bacterial genes associated with traits like age and weight indicates that

there may also be markers for traits like obesity or diseases like colorectal cancer," Peer says. Thus, bacterial genes could one day be used to help diagnose diseases, while information about a person's gut type could help inform treatment.

The study, published in *Nature* in April, hit the headlines. An article about it in the *New York Times* was the second most emailed

from that newspaper's website the following day, and the story was covered in many other outlets, including the *Süddeutsche Zeitung* and *Financial Times Deutschland*, spots on German, Belgian and American radio, features in *Nature*, *New Scientist* and *Focus*, and even in popular science blogs like *Not Exactly Rocket Science*.

[www.embl.org/press](http://www.embl.org/press)



The research suggests there are three distinct gut types

## Opening up new paths in DNA research

The Encyclopedia of DNA Elements (ENCODE) project has published a 'user's guide' to help scientists interpret the vast array of new data and resources it produces. The guide, published in *PLoS Biology*, is freely available online, along with the project's wealth of genomic data and related information.

The user's guide shows how data can be immediately useful in interpreting associations between single nucleotides and disease. For example, DNA variants upstream of the *c-Myc* proto-oncogene are known to be associated with multiple cancers, but until recently the mechanism behind this association had not been clear. ENCODE data show that the variants can change the binding of transcription

factor proteins to an enhancer region, which leads to changes in expression of the *c-Myc* gene and therefore to the onset of cancer.

Ewan Birney, senior team leader at EMBL-EBI, commented: "We knew four years ago, from our publication of ENCODE techniques on 1% of the genome, that we had an unprecedented view of how biology works on those regions. By extending our work to the entire genome, we see the immediate impact on the interpretation of noncoding variants identified in genome-wide association studies. These studies are disease-driven but have not always yielded clear next steps; ENCODE data can open up new paths to follow."

[www.encodeproject.org](http://www.encodeproject.org)

## Praise for P-CUBE

P-CUBE (Infrastructure for Protein Production Platforms), an EU-funded project that supports access to cutting-edge technologies in structural biology, got a glowing report in its recent mid-term review.

The project brings together the expertise, equipment and know-how in the field of protein expression and production technologies of the universities of Zurich and Oxford, and EMBL. Combining research, training and service activities, P-CUBE offers European users access to the most advanced techniques in cloning, expression, protein characterisation and crystallisation, free of charge.

The review commended the partner laboratories on their 'outstanding science', and 'willingness to act as generous hosts', as well as recommending ongoing developments.

"EMBL has welcomed more than 100 users over the first two years of P-CUBE," reveals project manager, Petra Lindemann. "As the user community grows, word is spreading of the many high-quality projects that could profit through the programme." Find out more at [www.p-cube.eu](http://www.p-cube.eu).

## Finding the right chemistry

The third Chemical Biology retreat took place at the Atlantic Hotel in Heidelberg in June, bringing together scientists from across EMBL sites to present novel techniques, discuss the latest trends and promote collaborations.

Participants were familiarised with the unique resources offered at EMBL, with talks by Joe Lewis, head of the Chemical Biology Core Facility and John Overington, leader of EMBL-EBI's ChEMBL team.

Group leaders Edward Lemke and Jeroen Krijgsveld from Heidelberg, together with Rob Meijers from Hamburg presented results obtained using artificial amino acids incorporated into proteins *in vivo*, highlight-

ing the growing importance of this technology. Other highlights included talks from Heidelberg group leaders Maja Köhn and Alexander Aulehla, introducing methods in their respective fields of research, while senior scientist Carsten Schultz described possibilities for manipulating cellular signalling networks. A large range of other approaches were presented over the two-day retreat, including talks by senior EMBL scientists together with pre- and postdocs.

All talks were followed by productive discussions, with speakers often reaching for a notepad to remind them to pursue a proposed experiment.

- André Nadler & Antoine-Emmanuel Saliba



P-CUBE opens doors to expertise and equipment across Europe

## Northern star

EMBL went north in May to help celebrate the official opening of MIMS (the Laboratory for Molecular Infection Medicine Sweden), the Swedish 'node' of the Nordic EMBL Partnership for Molecular Medicine.

MIMS, headed by Professor Bernt Eric Uhlin, sits within the Umeå Centre for Microbial Research (UCMR). Its aim is to strengthen Swedish research and enhance the field of molecular medicine, partly by promoting career opportunities for young scientists.

Following scientific presentations by Professor Uhlin and several newly recruited group leaders, the opening ceremony got under way, including a short address by EMBL's



Photo: Eva-Maria Dethl / MiMS

Director General, Iain Mattaj. The day concluded with a poster session and visits to the MIMS laboratories and Core Facilities.

Established in 2007, the Nordic EMBL Partnership includes the universities of Oslo, Umeå and Helsinki. As well as facilitating scientific exchange and support, the partnership implements aspects of EMBL's

administrative model, such as international recruitment, staff turnover and external scientific review.

In November 2010, the 'node' was reviewed by a panel appointed by the Swedish Research Council, which approved a second five-year period of funding for 2012–2016.

## Admin in the frame

The 14th General Assembly of EMBL administrators once again delivered an informative and entertaining mix of presentations, interactive workshops and activities.

The Assembly was opened by EMBL Director General Iain Mattaj, before head of the Advanced Light Microscopy Facility, Rainer Pepperkok, gave participants an insight into the mysteries of microscopy. Further talks were given by Dominik Reske, EMBL's legal advisor and Jörg Fleckenstein, senior manager of resource development.

Workshops coordinated by the EMBL SAP team explored the multitude of actions and processes involved when a scientific-group arrives or leaves, and Corinna Gorny and Rainer Menzel, heads of Health & Safety and Estate Management respectively, put together hands-on practical exercises to demonstrate the complexity of building custom-made labs.

On the social side, the German delegation of the Assembly demonstrated their impressive acting skills and children from the EMBL Kinderhaus took part in a photography competition, with prizes presented by Administrative Director Ralph Martens.



## Taking to the stage

Irresistible writing (see picture) was just one of the innovative ideas presented at this year's Science on Stage festival, which took place in Copenhagen in April.

More than 350 teachers convened for the annual international teaching celebration, which was initiated in 1999 by EIROforum, a partnership of European intergovernmental research organisations including EMBL. Methods being showcased at the event included gel beads that could help the growth of plants in space, a technique to 'listen' to gravity, and a simple experiment that took physics from the 'inside out', demonstrating how Magnetic Resonance Imaging works. Presentations ranged from the basics of science teaching, to innovative ways of making science relevant in everyday life.

Eleanor Hayes, editor-in-chief of EIROforum's EMBL-based journal *Science in School*,



Photo: Science on Stage Festival 2011

said: "There's no doubt that, for the participants, this festival was an inspiring experience that will enrich their teaching. But that is only the tip of the iceberg: each of these teachers was selected from among the most outstanding teachers in their own countries and all of them will be taking ideas back home to share with their colleagues."

## EMBL responds to Green Paper

EMBL has submitted a response to a European Commission Green Paper that called for input into the development of the next European Framework Programme.

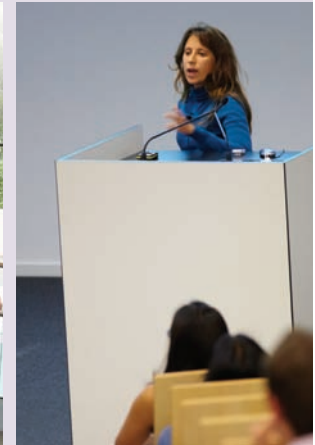
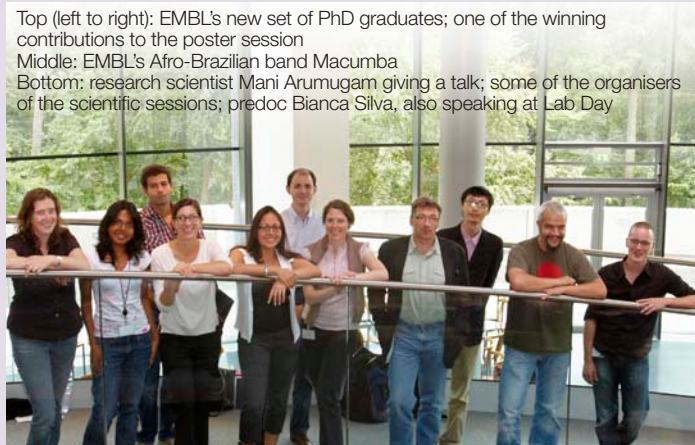
The public consultation was wrapped up at a conference on the Common Strategic Framework for EU research and innovation funding on 10 June. It gave stakeholders, individuals and organisations the opportunity to contribute to the development of the eighth EU funding programme, which will run 2014–2020.

Some of the main goals of the next programme are to make participation easier, increase scientific and economic impact,

and provide better value for money. Written responses are published online, and enabled large organisations such as EMBL to provide an in-depth view.

All submissions will be analysed and used to design the proposal, to be presented by the Commission by the end of the year. EMBL's response to the Green Paper concludes, "the continued support of basic research is an essential component in the innovation cycle".

The Commission also gave people the opportunity to choose between three names on the table for the programme: Discover 2020, Horizon 2020, and Imagine 2020.



Top (left to right): EMBL's new set of PhD graduates; one of the winning contributions to the poster session  
 Middle: EMBL's Afro-Brazilian band Macumba  
 Bottom: research scientist Mani Arumugam giving a talk; some of the organisers of the scientific sessions; predoc Bianca Silva, also speaking at Lab Day

## Seize the days

### Science, posters and parties at EMBL's showcase events

An extravaganza of science kicked off at EMBL Heidelberg on 9 June, with Career Day followed by Lab Day.

Over 200 staff from across EMBL sites attended the events at the main lab, which included expert talks, poster displays, a graduation ceremony and the presentation of the prestigious John Kendrew Award.

New this year at Lab Day was a scientific programme, organised by EMBL pre- and postdocs, which included presentations from predocs, postdocs, group leaders and other scientific staff on research such as computational models of biological processes, genotypic diversity, and developing

the use of new (and old) model organisms in scientific research.

"This year's Lab Day had the highest attendance to date," said co-organiser Alvis Brazma, group leader at EMBL-EBL. "We were particularly impressed with the breakout sessions – for this we thank the organisers." Postdoc Céline Revenu, who helped organise the scientific programme, added: "We aimed to put together an interesting range of speakers from different units and different fields, and I think we achieved our objectives."

A lighthearted poster exhibition, showcasing the people who work in research groups and other key areas of EMBL, included an interac-

tive memory game designed by the Ellenberg Group and an adapted Monopoly game put together by the De Renzis Group.

Events went on late into the evening, with guitar band Forscherstation performing for the graduation reception, and EMBL's own Afro-Brazilian percussion band Macumba delighting the crowds with a thumping performance in the sunshine before participants enjoyed a barbeque and party.

Lab Day was preceded by Career Day, during which scientists from all EMBL sites and the local scientific community learned about alternative, non-academic career opportunities from a variety of professionals.



"It has been brilliant graduating today with such motivated and talented scientists from all over the world."  
*Annelie Wünsche, PhD graduate, Ellenberg Group*



"It is a great opportunity for EMBL researchers to meet together, share stories and develop collaborations."  
*Duncan Legge, scientific database curator, EBI-PANDA Group*



"I love the creativity that has gone into the posters. There are lots of interactive ideas and its great to be here – I think everyone should come!"  
*Beat Rupp, postdoc, Nédélec Group*



"Those giving presentations had the opportunity to practise their skills in front of other EMBL scientists. There has been a lot of positive feedback."  
*Nikos Mathioudakis, predoc, Cusack Group*

# 'Network, network, network'

The EMBO Meeting chairs give their top tips for the conference in Vienna, from 10–13 September

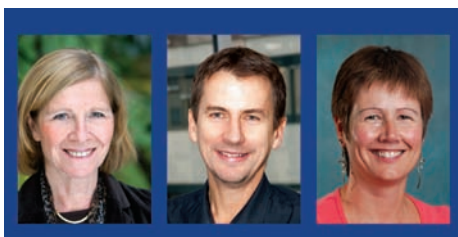
## What do you think sets the meeting apart from other conferences?

**Pascale:** I think The EMBO Meeting is special in the sense that it aims to gather together all the best people in Europe in many different fields. So if you want to really know what is going on not only in your field but also in other fields, this is really the place to come.

## What are you most looking forward to in the conference programme?

**Jane:** Definitely genome evolution. We are in the position now where there is enough sequencing data from genomes to start to make some really exciting comparisons between genomes. We have four great speakers all working in different organisms and I'm really looking forward to that.

**Pascale:** I invited three speakers: Lucy Shapiro, who is working on the wonderful organism called *Caulobacter*; my friend Bonnie Bassler, the queen of bacterial assem-



Pascale Cossart, Institute Pasteur, France; Barry Dickson, Research Institute of Molecular Pathology, Austria; Jane Langdale, University of Oxford, UK

blies; and Brett Finlay, who has been working on pathogens for many years.

**Barry:** There is a fantastic line-up of neuroscience speakers. Richard Axel is giving a keynote talk. In the plenary session on brain and behaviour we have Cori Bargmann, David Anderson, Edward Moser and Florian Engert. There are really exciting developments in neuroscience now, where the tools of molecular biology and molecular genetics in particular have been used to study brain

functions at the circuit level. All the speakers are really pioneers in that field.

## What advice would you give young researchers attending the conference?

**Jane:** Network, network, network. Don't talk to people you know unless you absolutely have to. Always talk to somebody you don't know. Go to the speakers' lunches. Make sure you make use of the career days and career sessions. And last of all, have fun and learn lots.

## What should participants see and do before leaving Vienna?

**Barry:** For art lovers, go to the Leopold Museum, the Albertina and the Belvedere. For music lovers there is a Musikverein, the Staatsoper; many great concerts. And for anybody, take an hour or two to spend some time in one of the many lovely Viennese cafés. The city is a great place just to spend a few hours wandering around and enjoying it.

[www.the-embo-meeting.org](http://www.the-embo-meeting.org)

## Chemical reaction

Cutting-edge techniques were showcased recently as visitors from 17 nations attended the week-long EMBO practical course 'Methods in Chemical Biology' at the EMBL Advanced Training Centre (ATC) in Heidelberg.

Participants heard talks from leading experts in the field and were guided through practical experiments by EMBL scientists in the ATC's training laboratories. The course, organised by group leaders Maja Köhn and Edward Lemke, focussed on communicating new methods in areas such as chemical protein engineering, proteomics, screening techniques, *in vivo* protein labelling and enzyme activity probes.

"The aim is that chemical biology methods can be carried out more widely by biologists," Maja explains.

## Bringing new ideas to the classroom



Student-teacher roles were reversed in May, when more than 130 teachers and pupils from across Germany came to EMBL Heidelberg for the conclusion of the three-year Interactive Network for Experimental Training (iNEXT).

iNEXT's goal is to get teachers, students, EMBL's European Learning Laboratory for the Life Sciences (ELLS) staff and EMBL scientists working together to produce new science teaching resources for schools. The project was funded by the Robert Bosch Foundation and coordinated by ELLS.

The two-day event at the EMBL Advanced Training Centre saw students working in EMBL's learning labs with cutting-edge scientific techniques, and then demonstrating their skills to teachers. There were also talks by EMBL scientists and a large range of interactive presentations and workshops. "It was fantastic to experience this science

first-hand and great to be the centre of attention," said Heidelberg-based student Nele Link. "Teachers can take the ideas they have learned and bring them into the classroom," added Jutta Krois, a teacher from Darmstadt, Germany.

Over three years, students and teachers visited EMBL's learning laboratories more than 10 times, running experiments studying diseases such as the human papillomavirus. Teachers were involved in developing practical activities and an e-learning module, and students and teachers benefited from workshops and training seminars seeking to develop learning methods and objectives.

"It has been inspirational not just for students but also for teachers," said Julia Willingale-Theune, head of ELLS. "It is encouraging teachers to try to present alternative ways of teaching and not get trapped in the old examples."



## Rewarding science

On Friday, 10 June, EMBL and EMBO staff and alumni gathered in the Klaus Tschira Auditorium for the John Kendrew Young Scientist Award Ceremony, part of the EMBL Lab Day programme.

This year's award winner, former Monterotondo postdoc Amaicha Depino, gave a modest yet moving presentation on her motivation to communicate science through workshops and children's books. "Argentina is a poor country, yet education is free. I didn't pay for my degree or PhD, and I want to give something back," she told the charmed audience. EMBL has 12 Argentinean alumni, and Amaicha is one of three who have returned to work in their home country.

Amaicha first heard about the lab at a conference called 'EMBL in Argentina', and before the award ceremony she agreed with Iain Mattaj to organise a similar conference in 2012 to promote EMBL.

Amaicha, whose group in the University of Buenos Aires is trying to understand the role of glia and neuro-inflammation in the development and manifestation of autism, was inspired by the work of EMBL Heidelberg's Fran-

cesca Peri, on microglia in the zebrafish: "I hope we can establish a collaboration", she added after their meeting.

*"The award was recognition of the effort of both doing science in Argentina and trying to communicate science in different ways."  
– Amaicha Depino*

Asked about the value of the award, Amaicha reflected that "winning the JKA was recognition of the effort of both doing science in Argentina and trying to communicate science in different ways."

For those interested, the next installment in the adventures of Amaicha's detective Intringulis will launch at the 2012 Book Fair in Buenos Aires. The science in this book focuses on blood and the insights it can give to forensic scientists.

Main picture: Amaicha receives the John Kendrew Award from Maria del Mar Vivanco, Vice-Chair of the EMBL Alumni Association, and Cornelius Gross, Amaicha's former group leader  
Inset: Well-deserved applause for Amaicha



## Mark your diaries...

Open to all EMBL staff and alumni

### **2 July** German local chapter meeting/ EMBL Summer Party

From 11am–2pm, small Operon, EMBL Heidelberg.

*Organisers: Freddy Frischknecht and Claudia Koch-Brandt*

### **13 September** Austrian local chapter meeting/ The EMBO Meeting

From 5.30pm onwards in the rooftop seminar room of the CeMM. Participants will be transported by bus from *The EMBO Meeting* to the CeMM to enjoy a skyline view of Vienna, drinks and fun networking activities.

*Organiser: Giulio Superti-Furga and Ioannis Legouras*

### **19–30 September** Online board elections

Make sure you cast a vote for the new EMBL Alumni Association board. Candidates for election are listed in this and the August issues of *EMBL&cetera*.

### **September/October (date tbc)** Iberian local chapter meeting

*Organiser: Maria del Mar Vivanco.* Further details to be confirmed.

### **4 November** 18th EMBL Alumni Association board meeting

From 9am–6pm at EMBL Grenoble. Please send items you would like to have discussed to the alumni office.



Fun for all the family at the Summer Party

## Board elections: Who gets your ✓ote?

All members of the EMBL Alumni Association (EAA) are entitled to vote in the upcoming board elections, online from 19 to 30 September – make sure you have your say in who helps take the EAA forward! The following members have served one term and are hoping to continue. Watch this space for details of new members vying for your vote, in the next issue of *EMBL&cetera*.



### **Giulio Superti-Furga (Chair)**

**Now:** Director, Center for Molecular Medicine, Vienna

**Then:** Team Leader, 1991–2004

*“The EAA is one of the communities I wish to be associated with most. I’ve had some terrific and entertaining years at EMBL, enjoying its great science as well as its young, dynamic and international environment. To represent this community is therefore a privilege. I have many ideas and inspiring projects which I would like to help materialise.”*

- Standing for Chair



### **Maria del Mar Vivanco**

**Now:** Group Leader, CIC BioGUNE, Spain

**Then:** Predoc, 1987–1991

*“I am really excited about continuing the EMBL Alumni Association initiatives, in particular, the European Molecular Biology Archive, which will provide a way to enjoy the evolving story of molecular biology.”*

- Standing for Vice-Chair



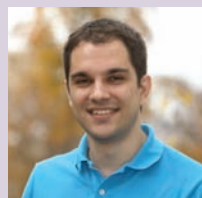
### **Oscar Martin-Almendral (Treasurer)**

**Now:** Administrative Officer, University of Heidelberg

**Then:** Finance Officer, 1995–2005

*“I worked as an HR/Finance Officer at EMBL from 1995 to 2005. In 2008 I was elected Treasurer of the EAA. I’d like to continue for a second term because I want to support the Association with my work; it is an honour to work for this organisation.”*

- Standing for Treasurer



### **Anastasios Koutsos**

**Now:** Account Manager, College Hill Life Sciences, UK

**Then:** Predoc, 2002–2007

*“The EAA is a vast community of researchers and professionals, who are bringing the EMBL experience to the wider community. I would like to continue to strengthen this community over the next three years, by using traditional resources and innovative online social media to encourage communication and enhance the relationship between alumni and EMBL.”*



### **Giovanni Paoella**

**Now:** Professor, University of Napoli

**Then:** Staff Scientist, 1991–1996

*“I’ve enjoyed working together to bring the EAA to its present state, through activities such as the John Kendrew Award, wiki and archive. I look forward to contributing further, by enhancing interactions and collaborations within the past and present EMBL community.”*



### **Anastasia Politou**

**Now:** Assistant Professor, University of Ioannina Medical School

**Then:** Postdoc, 1991–1995

*“I’d like the new board to maintain the unique EMBL spirit of collegiality, to strengthen the connection between alumni and today’s EMBL, to help those who leave EMBL make a smooth transition, and to document and make public a study on the impact that EMBL has had on European science. I would also like to see the John Kendrew Award continue and be complemented by more help to deserving EMBL alumni.”*

## obituary

Noreen Murray, an internationally respected molecular geneticist, died 12 May, aged 76.

Noreen, an EMBL alumna and Alumni Association board member from 2003–5, led the development of recombinant DNA technology, research that has had a significant impact on modern biology.

She worked at EMBL between 1980 and 82, where her research on lambda vectors was rapidly adopted by researchers across the world and is still widely used today.

Noreen joined the University of Edinburgh in 1988 and continued to work at

the bench long after her formal retirement in 2001.

Over the course of her career, her work was recognised by many prestigious awards, including fellowships of the Royal Societies of Edinburgh and London, membership of EMBO, honorary degrees from a host of world-class universities as well as a CBE for services to science.

Noreen is survived by her husband, Sir Kenneth Murray. She will be remembered with great affection and admiration and will be very sorely missed.

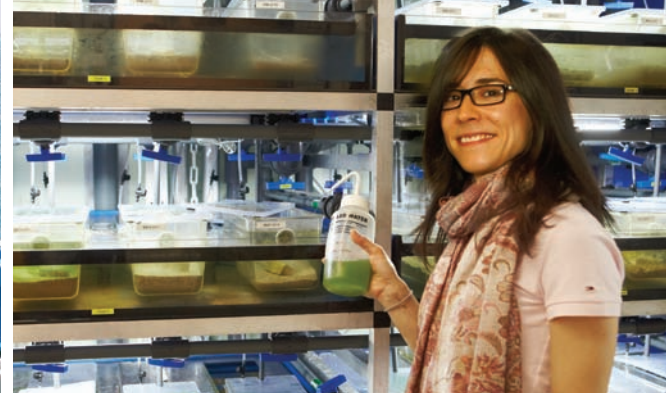


Noreen Murray, 1935–2011





Left: Silvia Rohr inspects a sample; Right: Elia in EMBL's amphioxus facility



## Out of time

It's not every day that a new living fossil turns up in a scientific sample. But researchers at EMBL Heidelberg believe this happened not once, but twice on a research expedition to the Indian Ocean, when postdoc Elia Benito-Gutierrez spotted some bizarre cephalochordates – primitive marine organisms thought to be surviving members of the group from which all vertebrates evolved.

The two species, believed to belong to the elusive *Asymmetron* and *Epigonichthys* genera, appear similar but have features clearly distinct from other known cephalochordates. Detailed by scientists just a handful of times (two papers giving little more than a short anatomical description), *Asymmetron* were often confused with *Epigonichthys*, creatures that have, until now, remained as mythical as the unicorn.

Yet as Elia peered into her portable microscope onboard the Dhoni boat used to navigate the shallow tropical waters around the Maldives, sitting amongst the sand, shells and pebbles she saw what appeared to be two distinct species of the tiny animals.

"It was like striking gold," says Elia, who works in the Arendt Group. "We were potentially looking at a legend that most people thought was long extinct. I could not believe they were there, they were moving, they were alive!"

Elia Benito-Gutierrez uncovers some sea creatures that could help solve some of the great remaining mysteries of evolution

The animals have morphological features that could represent transitional stages of key evolutionary events never seen before in any other organism. They could provide further clues as to how humans and other vertebrates evolved from the primitive organisms that existed at the time of the Cambrian Explosion more than 520 million years ago. "With these findings, the legend becomes real," Elia says.

In tracking down the cephalochordates, Elia, together with predoc Silvia Rohr, employed the expertise of locals to help find the sandbanks likely to provide their perfect living environment. But the detective work began many months previously when she investigated Victorian-era archives and used them to devise her own treasure map.

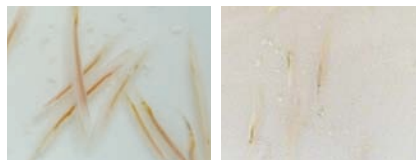
"I traced some very old records of people who had seen cephalochordates in the 19th century. They listed the species and the person recording it. From this it is possible to work out the coordinates of where they had been

seen," Elia explains. "At that time there were no photographs but the descriptions were very detailed – some of the drawings are almost like works of art."

The team linked up with the Tara Oceans expedition – a two-and-a-half year project to further understanding of ocean ecosystems around the world, co-headed by EMBL's Eric Karsenti – and decided to focus on the Maldives, where the creatures were unearthed.

Recent sequencing studies have revealed that cephalochordates' genes are 'frozen in time', making them of huge biological interest. But few species were thought to have survived to the present day. "Now we will be able to give a detailed and comparative description of three living genera of cephalochordate by applying cutting-edge molecular biology tools to characterise them," says Elia.

If the two species have indeed outlasted many of their prehistoric peers, it could enable scientists to compare brain cells and other important functions to those in vertebrates and other living fossils, such as *Platynereis*. "For this reason we are already starting to analyse the genome and the transcriptome," Elia explains. "It is great having so many different experts together here at EMBL to carry out these studies. But we don't know anything just yet. This is the very start of the research with these cephalochordates."



Glimpses of the past: *Asymmetron* (left) and *Epigonichthys* (right) are asymmetric, unlike well-known cephalochordates; *Epigonichthys* is further distinct, with a ventrolateral (left-sided) mouth

## Biodiversity in the balance

Urgent challenges facing our natural world were put under the spotlight as experts and participants convened in Cambridge for the fifth annual EMBL–EBI science and society symposium on 6 May. Issues discussed at 'Biodiversity and Endangered Species: Rethinking the Balance of Nature' included economics, education and politics juxtaposed against the latest science.

As in previous years, the conference attracted a diverse range of speakers and participants, leading to a lively debate, particularly in the panel discussion. Mike Blaxter, a zoologist from the University of Edinburgh, considered new scientific tech-

niques. "DNA barcoding is just eight years old, yet it is rapidly expanding our knowledge of the natural world," he explained.

Ben Collen, a researcher from the Zoological Society of London said it is important to understand the implications of complex scientific indicators. "We need to move

from being reactive to being proactive, to define actions to achieve targets," he said.

Caroline Fraser, an author and journalist, warned: "Many conservation efforts are failing. Not a single country on earth has met long-term biodiversity targets: the illegal wildlife trade is at an all time high. We have institutions to deal with this but they are underfunded and understaffed."

Mike Rands, who heads up the Cambridge Conservation Initiative summed up: "The political reality is that science is just one aspect that is taken into account. There needs to be a more effective dialogue."



# Living the DREAM

If you enjoy a good puzzle, take a look at the DREAM initiative, which is now hosted at EMBL-EBI...

'Dialogue for Reverse Engineering Assessments and Methods' sets users challenges that address fundamental questions in systems biology and invites participants to propose solutions. As well as being competitive and fun, the outcomes can also be useful for enhancing computational methods.

"You learn a great deal about different methods and get to see a lot of really creative ways to solve problems," says Julio Saez-Rodriguez, group leader at EMBL-EBI who co-organises the project. "There are many ways in which a question can be approached – and choosing the best one isn't always easy."

The initiative connects theory and practice, encouraging users to engage in challenges such as predicting disease phenotypes, inferring signalling networks from flow cytometry data, and deducing



Julio Saez-Rodriguez (left) co-organises the DREAM initiative at EMBL-EBI

the structure of a biological network based on experimental data. It allows researchers to compare the strengths and weaknesses

of methods used and can provide an indication of how reliable a given model may be. An expert panel then reviews attempts made to solve each challenge.

"We have learnt that when all the submissions are combined, the aggregate result is often more accurate than any single contribution," adds Julio.

The project follows in the footsteps of the EU funded CALBC (Collaborative Annotation of a Large Biomedical Corpus) challenge, also hosted at EMBL-EBI, which automatically integrates entity annotations and has resulted in a silver-standard biomedical corpus.

Prolific problem solvers are invited to speak at the annual DREAM conference and to contribute to the *PLOS One* DREAM collection.

[www.the-dream-project.org](http://www.the-dream-project.org)

## Open for business

EMBL's spin off company, Cellzome, celebrated its tenth anniversary with an open day and networking session at the EMBL Advanced Training Centre in April.

Speakers at the event, including Cellzome CEO Tim Edwards, head of Global R&D at Merck Serono Bernd Kirschbaum and EMBL Director General Iain Mattaj, considered the progress made over the past decade and the challenges and opportunities that could lie ahead in molecular medicine.

Speakers pointed to issues that increasingly transcend business and academia, with topics discussed included personalised medicine, intellectual property rights and drug discovery strategies.

Cellzome is a world leader in chemoproteomics and endeavours to transform the sciences of epigenetics and signal transduction into drugs for inflammatory diseases and oncology. The company looks to commercialise its discoveries and in recent years has been involved in a number of high-profile collaborations with companies such as GlaxoSmithKline, Johnson & Johnson, Bayer Healthcare, and Novartis.

Since its formation in 2001 by a small band of EMBL staff, Cellzome has grown substantially and now employs 120 workers across its two sites in Cambridge and Heidelberg.

[www.cellzome.com](http://www.cellzome.com)

## EMBL-EBI's first roadshow in Africa



EMBL-EBI's Bioinformatics Roadshow has returned from its maiden voyage to Africa, with hands-on training workshops in Nairobi and Cape Town, led by the EBI's James Watson and Joanna Hastings. The first event was held at the Nairobi campus of the International Livestock Research Institute (ILRI). Workshops were hosted by Etienne de Villiers, the ILRI-BecA Bioinformatics group leader, and Nelson Ndegwa, formerly a visiting student at the EBI and the driving force for the event.

Students from across eastern and central Africa attended the two-day intensive course to learn about the EBI's bioinformatics tools and databases, from sequence searching and alignments to functional genomics. The EBI team was taken on a tour of the ILRI-BecA facilities, which have been upgraded to provide laboratories for livestock, crop and

microbial research, state-of-the-art biosciences equipment and support units providing research-related services in bioinformatics, sequencing and microscopy through to diagnostics for livestock diseases.

The team then moved on to Cape Town to deliver a workshop organised by Nicola Mulder of the University of Cape Town as a pre-conference event for the 2011 ISCB Africa/ASBCB Conference on Bioinformatics. "The students contributed a lot to the workshops – it was interesting to discuss the variety of projects they are working on and to help identify useful resources that they had not come across before," said James. "We are looking to work together with the groups in Nairobi and Cape Town, as well as the ASBCB, to try to build future training capacity and collaboration for scientists in Europe and Africa."

# Origins of life

Risky, big-payoff experiments often define the careers of great scientists. And they have characterised the work of Jack Szostak, who has always favoured research that, while possibly far-fetched, is potentially groundbreaking. Nothing more, perhaps than what many see as the 'big question.'

"Studying the origin of life, at first glance, seems like something hard to approach. We cannot go back in time, so we cannot know for sure what happened," Szostak explains, following his Vision 2020 lecture at EMBL Heidelberg. "But you can learn a lot just by doing very simple experiments in the lab."

At the outset, Szostak's research on telomere transplant experiments laid out seminal ideas in the field, which led to a Nobel Prize in 2009. But he was quick to change direction, and his focus is now on recreating a hypothetical model of the swirl of chemicals that scientists believe came together to form the first living organisms some four billion years ago. "I do not like direct competition," he explains. "If things change, then I move on to something else."

Szostak hopes that in the next five to ten years his team will develop a good nucleic acid replication system and a functioning 'artificial cell.' "I would be very happy to get to the point of watching a chemical system start to show biological properties – namely evolutionary, Darwinian behaviour," he says. "I am excited by a number of studies that could really help to solve replication problems, systematically testing hypotheses about what things work and what things don't."

The research has raised concerns from some quarters regarding its implications, yet Szostak's reply is typically assured: "I use these questions to argue strongly that taking things on faith in whatever sphere of life is not a good idea. It is important to think for yourself, to

Jack Szostak reflects on efforts to understand how life began



look for evidence. As scientists we try not to be blinded by what other people have told us or what our preconceptions are."

The discovery of extremophiles and advances in astronomy has led to a renewed interest in the question. "There is life everywhere," says Szostak. "In deep seas, under rocks. And every day new planets are discovered around stars. Might these harbour life? These sorts of question bring together so many disciplines."

Most funding of Szostak's work comes from the Howard Hughes Medical Institute, a non-profit organisation that provides direct funding to researchers, allowing them to set their own research direction. But he questions the challenges that many researchers face in following up creative ideas.

"When there are limited resources, people want to make sure projects are going to work. But these projects are often obvious: anything that is creative is the first thing to suffer. There should be more emphasis on identifying good people and letting them do what they think is important," he says.

It is such an approach that has enabled Szostak to become widely known as a true visionary in the field. "Real advances tend to come from people who can draw together different branches of science – like applying organic chemistry to finding solutions to biological problems. This opens up the most interesting questions."

## Vision for the future

The crowds filling the auditorium at the EMBL Advanced Training Centre (ATC) for the Vision 2020 lectures, event after event, underlined huge interest in what the future holds for scientific research. Kicking off in April 2010 with David Baltimore of CIT's talk about micro RNA control of inflammatory and immune processes and concluding with Sydney Brenner of the Salk Institute's address 'Reading the Human Genome', the lectures have brought world-renowned experts together with scientists and interested members of the public.

The idea was developed by EMBL Director General Iain Mattaj and EMBL Associate Director Matthias Hentze as a way of celebrating the ATC as a place where exciting science is presented, something it is hoped will continue long into the future. "The lectures attracted a large number of people from outside EMBL and the talks interacted with the audience," says Matthias. "In the future, it would be great to have a similar event to keep the scientific audience outside EMBL engaged and I would like to invite people to offer their ideas."

## 'The fickle nature of stem cells'

A vision for stem cell research was set out at EMBL Monterotondo on 13 May, as participants saw Janet Rossant deliver a captivating seminar as part of the EMBL Distinguished Visitor Lecture series. Janet, who is head of research at the Hospital for Sick Children in Toronto, is one of the global figureheads of mammalian developmental biology following breakthrough research in areas such as early lineage restrictions, pre-patterning and differentiation decisions using the mouse embryo and embryonic stem cells (human and mouse) as a model.



Photo: SCSS

Her talk addressed the role of processes such as Hippo signaling pathways – responsible for controlling tissue growth in conjunction with growth factor signaling – in the progression of mammalian embryos. Janet took time to have lunch with EMBL students and postdocs, where she discussed issues such as ethics, red tape and future challenges

and opportunities for stem cell research as a whole to move towards applied technology.

She pointed out examples of established clinical use of stem cells in therapy and argued: "given the fickle nature of stem cells, we need to work as in an industry with precision, and universally standardised parameters and protocols with more robust and open exchange of knowledge and resources. Academia is on the road to perfecting this art of operational efficiency and consistency." All in all, quite characteristically, Janet left those attending the lecture wanting for more.

- Aditya Sankar



Neuroscientist Fabrizio Benedetti has been studying placebo effects for nearly two decades, a phenomenon which has been coined as ...

## The healing power of lies

“Consider an aspirin pill,” Fabrizio Benedetti says, holding out his right hand. “It is round, white and there is a real pharmacological agent inside. If you repeat many associations between this pill and the acid inside the pill, you can bet that every pill that is round and white will have some effect. It’s not magic, it works.”

Benedetti, a neuroscientist at the University of Turin Medical School, visited EMBL Heidelberg to deliver a Forum Lecture on the impact of words and rituals on patients’ brains. Until recently, little was known about the role of placebo response in relation to factors such as pain and depression. But recent studies juxtaposing the phenomenon against poorly understood factors such as spontaneous remission, doctor or patient bias, and mere coincidence, could change this.

“The real placebo response is not these factors, but rather a psycho-biological phenomenon,” Benedetti explains. “Something is actually happening in the brain of the patient.”

Benedetti’s research looks to use the placebo effect as a model for understanding experiences such as anxiety and reward in the human brain. He has shown that patients with serious conditions such as chronic pain and Parkinson’s disease can react positively to sham therapy. Conversely, other studies have indicated that if drugs such as morphine are taken by a patient unknowingly, their impact is dramatically reduced. One conclusion is striking: expectation enhances effect.

“You give morphine on Monday, a placebo on Tuesday, morphine on Wednesday and so on. In the long-run you can reduce intake by 50%,” he says.

The research suggests that each of us has our own ‘internal pharmacy’ in our brain that can be activated under certain conditions.

Evolutionary benefit is one reason he suspects that placebo effects are sometimes so profound. “Social grooming in monkeys is not dissimilar from the doctor-patient relationship,” he says. “If you believe in a member of the social group, there is an evolutionary advantage and an increase in social communication.”

“A placebo could be the cap of this pen if you believe in the healing power of caps”

Essentially, the healing process does not happen in a vacuum. “When we give medicine, it is done so in a complex context,” he explains. “The sight of the hospital and the smell of the drug are very important. These sensory and social stimuli tell the patient that the therapy is being performed. When a patient wants relief, it is not so different from seeking water when thirsty, or food when hungry. If you receive a reward, there is a release of a chemical, dopamine, in your brain. The same happens when you receive a placebo.”

But, for reasons unknown, effects can vary considerably. “There are good placebo responders and poor placebo responders,”

Benedetti says. “Sometimes, if you give a placebo for the first time the response is small. But it increases substantially after repeated administration.”

Learning is one mechanism underlying the placebo effect. Another is genetics. “We know of conditions where some genotypes respond well to placebos, while others do not,” he says.

Regrettably, such diverse and complex interactions leave placebo research open to controversy. “A placebo could be everything, it could be the cap of this pen if you believe in the healing power of caps” Benedetti says, gesturing once more. “You don’t have to believe me of course, but some people would. In these cases, there would be activation in their brain, just like there is in our experiments. However, not all studies that are performed today on the placebo effect are carried out with the appropriate controls.”

This is a major source of frustration. “It perpetrates a bad impression of placebo research,” he says. “In the field of complementary and alternative medicine, as we learn more about the placebo effect, ‘quacks’ might feel authorised to use talismen or sugar pills to treat their patients. This is a big ethical problem.”

It is these diverse issues that underline the need for a joined-up approach to the research, Benedetti believes. “You can talk about the placebo effect from many different perspectives,” he says. “But the research is very interesting for this reason.”

### From *Esquire* magazine to the EMBL Operon

Scientists at EMBL Heidelberg convened in May for the Distinguished Seminar speaker, Eric Schadt, chief scientific officer of Pacific Biosciences in California, as well as the future head of the Mount Sinai Institute for Genomics and Multiscale Biology in New York.

Eric emphasised the need for scientists to step away from reductionist tendencies of simplifying complex systems and to “get away from story-telling mode.” In order to link molecular biology to clinical medicine, we must “embrace the complexity” of biological systems, thinking in terms

of networks, rather than linear pathways, he said.

Eric, who has recently been profiled in men’s magazine *Esquire*, is perhaps ideally suited for leading such a multiscale translation of basic research to medicine. Just as he spans the east and west coasts of the United States as a lead scientist for non-profit and for-profit organisations, his training as a mathematician enables him to take interdisciplinary and unorthodox approaches that have already changed the way some pharmaceutical companies develop and design drugs. Whether we are molecular biologists,

cell biologists, or protein biochemists, his talk reminded us that, while simplification into models and pathways may be an experimental necessity, only

by viewing ‘our favourite gene’ as part of a complex whole can we truly study and begin to apply our knowledge towards improving human health. - Megumi Seebacher

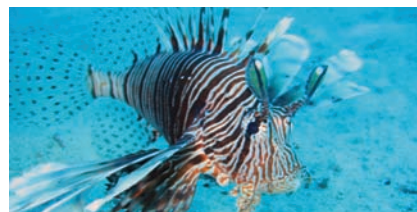


## Young endeavour

Young and innovative scientists were celebrated on 25 May as EMBL Heidelberg hosted the Eppendorf Young Investigator Award. The prize, which this year went to Suzan Rooijakkers of the University Medical Centre Utrecht, recognises outstanding achievements of researchers under the age of 35 in the field of biomedical research.

An independent jury, chaired by EMBL alumnus Kai Simons, selected Suzan's research into how the pathogen *Staphylococcus aureus* evades immune attack to survive in a human host for the 15 000 Euro award, which is funded by one of EMBL's corporate partners, Eppendorf. "In the early stages of a scientific career such an award serves as a massive boost of motivation and thereby has a real impact on the future of biomedical research," says EMBL Director General Iain Mattaj. Could you be the next Eppendorf Young Investigator of the year? Find out how to apply or nominate at:

[www.eppendorf.com/award](http://www.eppendorf.com/award)



Clockwise from top left: Divers prepare to go into the sea; an (un)friendly lion fish; Grischa Toedt, Vibor Laketa, Lukas Neidhard and Sebastian Scholz on the ocean floor



Photos: E.Tranfield, N.Handschuh, M.Groves

The EMBL dive club organised a trip to the Red Sea in March this year. Club members from across EMBL sites, as well as alumni, joined in and for many divers this was an excellent opportunity to practise or refresh their skills and to experience new types of dives such as wreck, deep wall or night dives.

While the club has been to the area before, staying on a 'liveaboard' boat this time around meant that the daily routine consisted mainly of diving, eating, and sleeping; in that order – up to four times a day. And while the divers were relaxing or discussing their latest underwater adventure, the expert skipper and crew steered the boat towards the next offshore dive site.

Sightings included reef sharks, barracudas, and stingrays, but it was the pristine coral reefs, swarming with fish, that were appreciated the most by the EMBL divers. And so, everybody brought home beautiful pictures, fond memories, and the desire to go on the next dive trip!

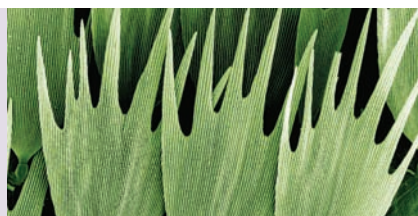
- Holger Dinkel & Jan Medenbach

## newsinbrief

⇒ Instruct, a dynamic hub of structural biology established as one of the new research infrastructures identified by the European Strategy Forum on Research Infrastructures in 2006 to develop research facilities in Europe, has released a beta version of its new website. The portal looks to give an overview of the increasingly diverse structural biology infrastructures available in Europe. "The aim is that users can identify new requirements, follow developments in their field and ultimately be directed to the best facilities for their needs," says Christoph Müller, joint head of the Structural and Computational Biology Unit at EMBL Heidelberg.

[www.structuralbiology.eu](http://www.structuralbiology.eu)

⇒ Registration is now open for the following EBI hands-on bioinformatics training courses: 'Analysis of High-Throughput Sequencing Data', 24–29 October; 'Computational Structural Biology – From Data to Structure to Function', 14–18 November. For applications and deadline information see: [www.ebi.ac.uk/training/hands-on](http://www.ebi.ac.uk/training/hands-on).



⇒ Wondering about the subject of the picture on the cover? Find out by joining EMBL's facebook page:

[www.facebook.com/embl.org](http://www.facebook.com/embl.org)

⇒ Are you involved in bioinformatics training? Then the Bioinformatics Training Network (BTN) is waiting for you! The BTN aims to tackle training challenges in bioinformatics, build pragmatic solutions to them, and provide mutual support. The EBI has made a significant contribution to setting up the network and we encourage the bioinformatics community to participate. Open to all, the BTN is a community-based project providing a central place to share materials, list training events and discuss training experiences. Vicky Schneider: [vicky@ebi.ac.uk](mailto:vicky@ebi.ac.uk) or [www.biotnet.org](http://www.biotnet.org).

⇒ The Sixth International Congress on Electron Tomography was held at the

EMBL Advanced Training Centre, 5–8 May, bringing together scientists from around the world, with particular focus on biology. EMBL Heidelberg group leader John Briggs said: "It provided the opportunity for experts to talk about the latest biological and technical developments, access current capabilities and spread best practice."

⇒ Hüseyin Besir and his team in the Protein Expression and Purification Core Facility have moved to a new lab on the same floor in room 303/304 in Heidelberg. The team is now together with the lab for biophysical instruments. Normal operation has resumed and the team are waiting to discuss your protein related projects.

⇒ An innovative e-learning initiative kicks off this month, following a grant awarded to the European Learning Laboratory for the Life Sciences (ELLS) team at EMBL Monterotondo. The 30 000 Euro award by the Motorola Foundation will fund project IBEL (inquiry-based e-learning), which will establish long-term activities in science teaching in Italian schools.

## events@EMBL

27–29 June EMBL Grenoble  
**Summer Council Meeting 2011**

27–29 June EMBL Heidelberg  
**EMBL Advanced Course:**  
Whole Transcriptome Data Analysis

30 June EMBL Heidelberg  
**EMBL Forum on Science and Society seminar:** Unnatural: The Heretical Idea of Making People, Philip Ball

2 July EMBL Heidelberg  
**Summer Party 2011**

4 July EMBL Heidelberg  
**Distinguished Visitor Lecture:**  
Morphogen Gradient Formation and Interpretation, Alexander Schier, Harvard University

4–8 July EMBL Heidelberg  
**EMBL Advanced Course:**  
Proteome Analysis by Mass Spectrometry – From Samples to Data Analysis

12–14 July EMBL-EBI  
**BSPR/EBI Proteomics Meeting 2011**

15–20 July EMBL-EBI  
**Hands-on training:** Joint EBI-Wellcome Trust Proteomics Bioinformatics Workshop

18–20 July EMBL Heidelberg  
**EMBL Advanced Course:** Variant Calling from Genomic Sequencing Data

1–6 August EMBL Heidelberg  
**EMBL|EMBO Science and Society Summer School:** The Human Animal: Scientific, Social and Moral Perspectives

8 September EMBL Heidelberg  
**Distinguished Visitor Lecture:**  
Bonnie L. Bassler, Princeton University

14 September EMBL Heidelberg  
**EMBL Forum on Science and Society seminar:** The New Geography of Science: Changing the Global Research Map, Jonathan Adams

15 September, EMBL Heidelberg  
**Distinguished Visitor Lecture:**  
Jim Hudspeth, The Rockefeller University

For more details about these events and more, visit [www.embl.org/events](http://www.embl.org/events).

## people@EMBL



**Takashi Hiiragi** joins EMBL Heidelberg as a group leader in the Developmental Biology Unit in July. Takashi's group will seek to develop a systems-level understanding of early mammalian development. He joins from a group leader position at the Max Planck Institute for Molecular Biomedicine in Münster. His postdoctoral research took place at the MPI for Immunobiology in Freiburg where he subsequently held a group leader position.



**Régis Lengrand** has joined EMBL Grenoble as head of Administration. Régis recently spent 10 years working in Denmark, including a position at the Rehabilitation and Research Center for Torture Victims. He has a master's degree in International Marketing and enjoys a multicultural atmosphere. He looks forward to working in a dynamic scientific environment and exploring the French Alps.

## awardsandhonours

**Pedro Ballester**, a postdoc in EMBL-EBI's Thornton group, has been awarded a Junior Research Fellowship (JRF) at Wolfson College, University of Cambridge. The competition is open to scholars from all disciplines who demonstrate outstanding academic achievement with the potential for further intellectual development and scholarly creativity. JRFs are full members of the College's Governing Body, with a responsibility for, and commitment to, the well-being of the College.

**Sven Dankwardt** has been awarded the Hella Bühler Prize for cancer research, together with Heidelberg University colleague Andreas Fischer. Until recently, Sven worked in the Molecular Medicine Partnership Unit (MMPU), a joint collaboration between EMBL and the Medical Faculty of Heidelberg University. The prize of 75 000 Euros each is awarded to junior researchers for excellent research in oncology and recognised Sven's research into the relationship between activated blood coagulation and tumour progression in cancer.

## Fit for purpose

Working at EMBL needn't just be about exercising the mind and flexing one's intellectual muscle – with summer in the air, across the lab thoughts have turned to getting in shape.

In Heidelberg, the Fit for Spring initiative saw various fitness classes, healthy eating, osteopathy, and health checks offered throughout May. Organised by the Health and Safety Office, with the enthusiastic support of staff, the campaign was well received: "People were grateful to have the opportunity to get more active and prioritise their well-being," says Corinna Gorny, head of the Health



and Safety Office. "We're hoping to do a follow-up this summer."

At the outstations, sport for fun and fitness has stepped up a gear since the sun has come out: Grenoble is venting any on-campus rivalry in a football tournament against ILL and ESRF teams, while everything from rugby to roller-blading keeps the rest of the EMBL community on their toes!

EMBL&cetera issue 63, June 2011.  
Published by EMBL's Office of Information and Public Affairs, Meyerhofstraße 1, D-69117 Heidelberg. e-mail: [info@embl.de](mailto:info@embl.de). Available online: [www.embl.org/newsletter](http://www.embl.org/newsletter). Editor: Adam Gristwood. Editorial support: Chloë Balharry, Manuela Borchert, Lena Raditsch, Petra Riedinger, Silke Schumacher. Contributors: Mary Bergman, Ellen Dearden, Anna Efsthathiou, Sonia Furtado, Wolfgang Hübner, Katrina Pavelin, Mehrnoosh Rayner. Photographic support: EMBL Photolab. Printed by ColorDruck, Leimen.

