



EMBL and DESY extend collaboration



Lab Day-and-a-half 2004... page 3



Kevin Leonard rides off into retirement... page 6

EMBL and DESY renew their vows

EMBL and the Deutsches Elektronen-Synchrotron (DESY) have signed an agreement building on our 30-year track record of successful cooperation, continuing the partnership into 2015. A key component in the future collaboration is to upgrade the PETRA ring into a dedicated synchrotron radiation source (beginning in 2007). This will maintain EMBL and DESY's global competitiveness in the field. The two organizations will also continue to collaborate on research and development projects and organize seminars, symposia, workshops and other scientific events. Pictured above (left) are Chairman of the DESY Board of Directors Albrecht Wagner and EMBL Director General Fotis C. Kafatos at the official signing of the agreement in Hamburg on May 19, 2004.

Chemical Genomics facility set to open

In cooperation with the German Cancer Research Centre (DKFZ), EMBL has established a Chemical Genomics facility. By July, according to facility head Joe Lewis, everything should be ready to perform the first screens. Like EMBL's other core facilities, it will provide services to scientific groups from across the lab, including small-molecule screening, hit validation and high-throughput assay development. [on page 2](#)

Lab Day 2004: from protein crystals to hard rock

This year's Lab Day expanded to fill a day and a half of festivities, starting with graduation ceremonies for EMBL's International PhD Programme, then skipping along to poster sessions, postdoc talks and concerts by EMBL's talented musicians. If anyone finds a box of cereal with a picture of Walter Witke on it, please return it to Monterotondo because this crucial component of his group's poster display was mistakenly thrown away (after the contents were eaten?) by the cleaning staff. [on page 3](#)

Groundbreaking ceremony held for PSB

On June 8 EMBL, the ESRF, ILL and IBS celebrated the start of construction on the new building for the Partnership for Structural Biology in Grenoble. The new facility will host over 60 scientists from the partner institutes and will house the core infrastructure for high-throughput protein expression, characterization and crystallization. This will include a Biological Deuterium Labeling Facility which will improve the quantity and quality of research that can be carried out using ILL's neutron facilities. The ESRF is also constructing a new, highly-automated dual station beamline for macromolecular crystallography.

New website spans EMBL Units

A new portal has been launched to provide better access to research, services and training across EMBL's five sites, and to present more information about news and events at the Lab. Major goals with the "umbrella site" are to standardize the design across the Lab and increase functionality. Check it out at www.embl.org [on page 5](#)

Annual Report out now

What's the real story behind the EMBL logo? How did EMBL research change Swiss watch-making forever? What's the connection between Barbra Streisand and medaka development? The answers can be found in this year's Annual Report, available now from OIPA (info@embl.de).

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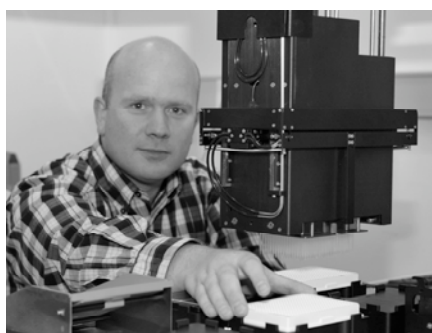
New Chemical Genomics facility to provide unique touch to EMBL

In cooperation with the German Cancer Research Centre (DKFZ), EMBL has established a Chemical Genomics facility, on the fourth floor of the Heidelberg laboratory, headed by Joe Lewis. Silke Schumacher, EMBL's Cooperation Manager, helped to establish the joint effort between DKFZ and EMBL. By July, Joe says, the facility should be ready to perform its first screens. Like EMBL's other core facilities, it will provide services to scientific groups from across the lab, including small-molecule screening, hit validation and high-throughput assay development.

Establishing a chemical genomics unit in an academic setting is unusual, Joe says, at least for Europe. Of all the types of "omics" out there, Chemical Genomics is probably the one most associated with industry, drug discovery, and applied science. Conducting high-throughput screens has been expensive, time-consuming, and difficult. While some universities in the US, for example, have created such facilities, EMBL's unit is one of the forerunners in Europe.

"This interdisciplinary setup combining molecular biology with chemistry gives EMBL the chance to create new cutting-edge research tools for the life sciences," says Christian Boulin, Head of Core Facilities. "The new facility will be very helpful in fulfilling one of EMBL's major goals: the translation of EMBL's research results into new effective pharmaceuticals," adds EMBL's Deputy Managing Director Martin Raditsch. EMBL, the technology transfer company of EMBL, used its networks and know-how to help pull all the pieces together for the successful launch of the facility.

The result is a collaboration with the chemistry company Tripos Discovery Research (TDR), whose chemistry labs are based in the UK. TDR will provide the screening library consisting of approximately 50,000 molecules designed to be medicinally relevant, and "follow-upable" to minimize project attrition at later stages in the discovery process. In addition, TDR will provide design and synthesis expertise and access to their extensive chemistry knowledge base to support chemical optimization of candidate molecules that are identified in collaboration with the research groups.



Joe Lewis, Chemical Genomics facility head

It's definitely a worthwhile effort, according to Joe – one that fits well into EMBL's plans for the future. "Small molecules play essential roles in many areas of basic research and are often used to address important biological questions – we've seen a steady increase in the need for such services. Our DKFZ collaborators will focus on finding small molecules that modulate cancer related pathways and processes. Scientists at EMBL will now be in a better position to develop their own valuable tools for systems biology research."

EMBL has a very strong track record in molecular biology and has made significant contributions to chemistry, but until recently has not had all the in-house expertise to develop small molecules. Carrying out projects in the past has required collaborating with an external chemistry group. "If you couldn't find somebody working on the same question, you were out of luck," Joe says. "And many projects our researchers wanted to pursue weren't attractive to pharma or biotech, because they concerned very basic questions with no clear pay-off."

In cases where a collaboration did get off the ground, there was another constraint: work had to be done on the basis of material transfer agreements, typically with pharmaceutical companies. That meant that intellectual property developed during projects belonged to the company, rather than EMBL. Now, intellectual property arising from work in the facility will benefit the Laboratory.

The facility staff will assist groups in the development of primary and secondary assays to screen against compound libraries, then guide them through the process of developing tool compounds for specific targets. "This can be done in a cost-effective way, opening up new avenues both for basic research and potential therapeutic applications," Joe says.

A successful project needs to be carried out in stages, he says – typically a limited first round of screening needs to be carried out to determine whether a project is worth pursuing and if further commitments should be made. The staff has the expertise to help researchers make these decisions. If you have an idea for a project, stop by the facility and speak with Joe.

Life Sciences and the Developing World: How much do we care? EMBL Science and

A Science and Society minisymposium took place at EMBL-Heidelberg in the afternoon of Friday, June 4. Topics of past meetings have included "stem cells – their origins and medical uses," "ownership and commercialization of science," and "changing publishing practices in science." Responding to repeatedly expressed interest within the scientific community at EMBL, this time "Life Sciences and the Developing World" was chosen as the main theme.

Evidently, it was not so much the components of the main title, "Life Sciences" and "the Developing World," that gained most of the attention at this meeting, but the relationship between the two. One issue is the fact that "the Developing World" is such a broad, and hence loosely-defined, category; differences between the populations and societies that are assumed to belong to it

tend to be so much more striking than their similarities. But, leaving such terminology problems aside, the basic issue raised from different points of view by speakers and panelists concerned the relationship between the life sciences on one hand, and the social and economic settings within which they are embedded, or, for some reason fail to get embedded, on the other. When we take into account the most appalling of the problems plaguing the world community, the unequal distribution of economic resources, it should not come as a surprise to anyone that the life sciences are abundantly embedded in some national-geographic contexts, loosely in some, and not at all in others.

Additionally, Life Sciences and the Developing World is so vast a topic that presentations and discussions at this meeting

could cover but a limited number of the complex and important issues relating to it. The meeting unfolded along two basic perspectives: the meaning and viability of doing life sciences in economically underprivileged social settings, and, second, the possibility of influencing and directing the life sciences in the more privileged settings so that the useful knowledge and technologies that come out of them are more aligned and tuned to the needs of people in the poorer parts of the world.

The first session of the symposium consisted of talks by three keynote speakers. Fotis Kafatos, the Director General of EMBL, started by focusing on "The Developing World: Challenges and Opportunities." He stressed the paramount importance of economics for any attempts at improving the level of science education and research in poorer parts

A lab day-and-a-half like no other

EMBL's annual Lab Day, held in conjunction with the International PhD Programme's graduation ceremonies, got a turbo boost this year. Last year the senior scientists decided that the event could be made more interesting and fun, especially for visitors from the Outstations; they also felt that post-docs needed to be better integrated into the activities. Pernille Rørth, Christoph Müller and Rolf Apweiler put their heads together and came up with an enhanced programme lasting a day and a half.

Alongside the traditional poster session and talks by graduating PhD students, the revamped programme included talks by

postdocs, demonstrations of EBI databases, tours of EMBL-Heidelberg's facilities and workshops, and a group leader seminar by Iain Mattaj, wearing a t-shirt with a picture of Darth Vader.

Lab Day 2004 saw an unprecedented participation of staff from the Outstations. To help staff traveling from afar feel more at home, EMBL-Heidelberg staff served as hosts, getting together in small groups for informal tours around the lab and conversation over dinner.

Interspersed among the scientific events were plenty of activities to keep the troops

entertained. Festive dinners and a barbecue gave everyone a chance to relax and talk about things other than science. On Tuesday evening, EMBL's super-talented musicians performed a classical music concert, and, after a short break for a Euro2004 football match, EMBL's own "The Pranks" plugged in their guitars and keyboards and rocked the house down while the crowds danced.

The event was a great success, thanks to the efforts of Pernille, Christoph, Rolf and to the many others who helped out.

Here are some outtakes to whet your appetite for next year..



Photos by Maj Britt Hansen

Society minisymposium explores how science can serve the world community

of the world. He presented a detailed assessment of one major American initiative (Millennium Science Initiative) for the improvement of the knowledge base and scientific research where most needed. Fotis stressed the importance of creating world-class research institutions in developing countries as a means of redressing some of the current imbalances in the distribution of human resources and know-how.

David Dickson from the Science and Development Network (SciDev.Net) discussed the goals of this initiative that he launched in 2001 with the backing of the journals *Nature* and *Science*. SciDev.Net seeks to put the potential of the Internet into practice in the field of science communication between the technologically developed and developing parts of the world. In his words, "The process of social and economic

development, in rich and poor countries alike, can be described in broad terms as putting scientific knowledge into practice. But this requires that those responsible for policy-making be aware of both the potential contribution and limitations of the relevant science, whether they are engaged in promoting health care, increasing food production – or even protecting communities from the impacts of global warming."

Amel Benammar-Elgaaied of the Faculty of Sciences at Tunis University spoke about the state of affairs in the world of Tunisian biotechnology. She told the audience that traditional biotechnologies have been used in Tunisia since ancient times for the production of wine, bread, and milk derivatives. The number of firms involved with modern biotechnologies is, however, small. "Their activities concern vaccines and sera produc-

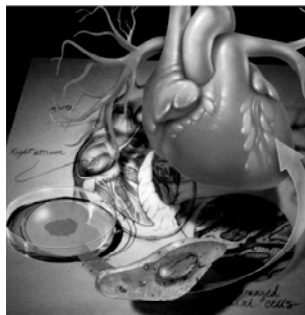
tion, biological treatment of water, *in vitro* multiplication of plants, fermentation industries and textile industry. At the level of services, some biotechnological methods are used for human, plant and animal disease diagnosis, and paternity tests, for example. Medically assisted procreation is also performed in response to a social need."

The second session consisted of a panel discussion with participants from both the "North" and "South". Initial comments from the panelists gave rise to lively exchanges with members of the audience. The variety of different opinions that were expressed at this meeting left the strong impression that many scientists are truly concerned about questions of how science can better serve the world community.

– Halldór Stefánsson

The six million dollar heart

Nadia Rosenthal, head of EMBL's Mouse Biology Programme in Monterotondo, has been awarded a grant from the Fondation Leducq as part of a Transatlantic Network of Excellence for cardiovascular research that will receive a total six million US dollars over a five-year period. Together with grant coordinators Michael Schneider (MD Anderson Centre for Cardiovascular Development, Houston, TX) and Stefanie Dimmeler (Goethe University, Frankfurt), and collaborators Robert Schwartz (Department of Molecular and Cell Biology, University of Pennsylvania), Giulio Cossu (Stem Cell Research Institute, San Raffaele, Milan, Italy), and Andreas Zeiher (Goethe University, Frankfurt), Nadia will focus on the origins, engineering, and clinical application of adult cardiac progenitor cells.



Initial studies in both animals and humans using endogenous or exogenous cells to regenerate damaged cardiac muscle are encouraging, yet critical gaps exist in the available information on mechanisms. The combined efforts of the Network members will be applied to fundamental aspects of cardiac self-repair and engraftment, emphasizing the developmental origins of adult cardiac progenitor cells, homing, and differ-

entiation. Based on their studies on mouse and human cells in culture and animal models, the team will use the new funding to initiate a clinical trial of human cells with enhanced potential for cardiac regeneration.

"We have been given a unique opportunity to share the expertise, facilities, models, reagents, and knowledge brought together by this superb group of scientists," Nadia says. "We already collaborate in pairs, but as a team we will be able to move much faster towards applying our collective understanding of adult progenitor cell biology to effective human cardiac repair. It's a typically EMBL way of doing research."

The project is one of only four applications that were funded through the Foundation's Transatlantic Network of Excellence, specifically intended to bridge the sciences between Europe and the United States in the area of cardiovascular disease. The Fondation Leducq, created by French businessman Jean Leducq and his wife Sylvaine, is a Paris-based not-for-profit foundation committed to improving health through international efforts to combat cardiovascular disease. More information on the foundation is available at

www.fondationleducq.org

Fotis Kafatos receives honour from German government

On June 2, Fotis C. Kafatos received a distinguished award in Germany, the *Bundesverdienstkreuz 1. Klasse*. This honor recognizes his significant contributions to Germany and Europe, in encouraging and stimulating top quality scientific research in the life sciences during his years as Director-General of EMBL. German Federal Research Minister, Frau Edelgard Bulmahn, presented Fotis with the award during a ceremony at the Federal Research Ministry in Berlin.

"It's a humbling experience to receive this award from the German Government, which represents a country that I greatly admire and respect," says Fotis. "This prestigious award reflects the success of EMBL. Germany, a state deeply committed to the European ideal, is a fine host for the Laboratory, supporting consistently the entire EMBL system. This support is all the more important now, when EMBL must invest in a timely manner in order to address immense new challenges: to elucidate complex biological systems and to orient this understanding to the benefit of society."

BIOXHIT kicks off with a special meeting at EMBL-Hamburg

Nearly ninety researchers gathered in Hamburg on April 26-28, 2004, to officially kick off the BIOXHIT project. BIOXHIT, which stands for Biocrystallography (X) on a Highly Integrated Technology Platform, is an Integrated Project funded within the 6th Framework of the European Commission and coordinated by Victor Lamzin at EMBL-Hamburg. The major goal of BIOXHIT is to consolidate research activities at all European synchrotrons and leading software developers in the field of biological crystallography in a timely and unprecedented joint effort to develop, assemble and provide a highly effective technology platform for Structural Genomics. "The BIOXHIT project attracted broad interest not only amongst crystallographers. We had the great opportunity to welcome many scientists working in various research areas coming from Europe as well as from Israel, New Zealand and the USA," says project coordinator Victor Lamzin.

In the course of the meeting the members of the Project Steering Committee reported on the respective scientific activities in crystallog-

raphy (Section 1), synchrotron technologies (Section 2), beamline end-stations and data collection (Section 3), data processing and structure determination (Section 4), databases and networking (Section 5) and training, implementation and dissemination (Section 6). Towards the end of the meeting, the representative from the EC gave a vivid overview of Structural Genomics in Europe. The presentations

were followed by lively and extensive discussions and the project partners, as well as the members of the high profile scientific advisory board of the project, took the opportunity to discuss in detail the manifold tasks, objectives and challenges the project offers. More information on BIOXHIT can be obtained from www.bioxhit.org.

– Daniela Jaenicke



Structural biologists gather in Hamburg on April 26-28, 2004, to kick off the BIOXHIT project.

A new face on the web: EMBL launches www.embl.org

A new portal, www.embl.org, was launched on June 22 to provide easier access to EMBL's research, services and training across its five sites, and to provide more information about news and events at the Lab. Over the years EMBL has grown in size and organizational complexity. In particular, the increasing importance of our Outstations and the services they provide, particularly at

the EBI, suggested it was time to put in place a new "umbrella site." Major goals were to standardize the design across the Lab and increase functionality.

www.embl.org was designed by Jason Soffe, who was joined in April this year by Francesco Sottile, under the supervision of Christian Boulin, Iain Mattaj and Silke Schumacher. They received crucial help

from Björn Kindler, Stephanie Weil, Rodrigo Lopez and many others.

An introduction to the new site and FAQs can be found at www.embl.org/staffonly. Please send your comments and corrections to webproject@embl.de.

Below you'll find a description of some of the features of the new site. For an in-depth look, visit EMBL on the web.

- 1 This window has changing announcements of events that will take place at EMBL
- 2 Links to the homepages of the five different EMBL sites
- 3 Link to the new intranet and FAQ for the new website
- 4 The two most current press releases and a subscription service for journalists and others interested in receiving news from EMBL
- 5 About us: facts and figures for EMBL, plus news and events
- 6 Research within EMBL's nine Units and the newly established centres
- 7 Services provided by EMBL to the scientific community
- 8 Information on education activities at EMBL, including the International PhD Programme, postdoctoral training and Science for Teachers

The screenshot shows the EMBL website homepage. At the top, there is a navigation bar with the EMBL logo and the text "European Molecular Biology Laboratory". Below this, there are links for "GRENoble", "HAMBURG", "HEIDELBERG", "EBI HINXTON", and "MONTEROTONDO". A search bar is located in the top right corner. The main content area is divided into several sections: a news section with a photo of people celebrating and a headline "The First EMBL Alumni Association Reunion: EMBL Yesterday, Today and Tomorrow Heidelberg - 26-28 November 2004"; a "ABOUT US" section with a sub-heading "General Information, News and Communication, Events, Jobs, Alumni Association, Endowment, Foundation, Science and Society"; a "RESEARCH" section with a sub-heading "Faculty, Research Units, EMBL Centres, Partnerships, Technology Transfer"; a "SERVICES" section with a sub-heading "Core Facilities, Computational Services, Access to Synchrotron and Neutron Source, Visitors Programme, Szilárd Library"; and a "TRAINING" section with a sub-heading "International PhD Programme, Post-Doctoral Fellows, Undergraduate Training, Science for Teachers". On the right side, there are two news items: "8 June 2004 New European Centre of Excellence will tackle fundamental research problems related to human health" and "2 June 2004 EMBL Director-General receives high German honour: the Bundesverdienstkreuz 1. Klasse". A "Subscribe" button is located below the news items. At the bottom, there are flags representing various countries and a copyright notice: "©Copyright European Molecular Biology Laboratory 2004".

Some Frequently Asked Questions...

How will www.embl.org develop in the future and what will happen to the Outstation websites?

The Outstation websites will be redesigned to fit the design of the new www.embl.org pages. The web team will work closely with the Outstations to ensure that the content, including internal information, will be specific to each Outstation. The EBI website will not change.

Content on www.embl.de that is specific for Heidelberg will be transferred to a temporary www.embl-heidelberg.de site that will be expanded as soon as possible. Pages for web-based administrative tasks, such as reserving seminar rooms in Heidelberg, can be found there.

Can I/my group still have my/our own webpage?

Yes. Existing group and personal pages will automatically be linked to the new www.embl.org group homepages. If you would like to add a page for yourself or your group, please follow the instructions at www.embl-heidelberg.de/LocalInfo/CG/homepages/index.html

Where can I find "Today at EMBL"?

"Today at EMBL" – a daily list of the lab's seminars, events and activities – can be found under the "About Us" heading or by following the "Staff Only" link. Regardless of which link you follow, "Today at EMBL" looks the same when accessed from inside EMBL. External users will see a different

view and cannot access the "Staff Only" section. The internal version is currently being developed to include comprehensive and dynamic information for in-house staff. For a complete list of seminars, courses and conferences, follow the link to "Events" under "About Us."

How can I edit my personal information?

You can choose to display your phone number, email and photograph to external users. On your personal page, follow the link to "edit some values" and follow the instructions. For other changes, please contact webproject@embl.de.

(more FAQs can be found at www.embl.org/staffonly)

names to faces

Ready for some Easy Riding: Kevin Leonard retires after nearly 30 years at EM(BL)

Although the daily arrival or departure of colleagues from EMBL may resemble shifting sand, there is a layer of bedrock beneath it all, made up of people like Kevin Leonard, who is retiring after 29 years at the Lab in Heidelberg.

When did you come to EMBL?

I arrived at EMBL in November 1975, when there were only about 10 employees. Kai Simons from Cell Biology was already here and Arthur Jones from Instrumentation, who passed away recently. Anne Walter was here and possibly Nelly van der Jagt. I originally intended to stay only nine years. The Lab had offered me an initial contract of either three or five years, and I took the three years because I thought I might not like it here. After the first contract period, I was given an indefinite contract, but I never thought I would stay this long!

So you were here before the Lab was constructed?

Right, there were no facilities at the time. We were in the MPI (Max-Planck-Institut für Kernphysik) then. My office was right next door to Sir John Kendrew, who founded the Lab and was its Director General for 5 years. In 1978 we moved into the new EMBL building. The first Administrative Director was, fittingly enough, a Mr. Embling. He was from the UK civil service and was chosen because he had a good knowledge of German.

What brought you to Heidelberg?

I had always wanted to work in a foreign country and learn a foreign language. There were two new labs being set up at the time, in Madrid and in Heidelberg. I wrote to Sir John and he told me they were looking for people. My initial duties were to build up the electron microscopy (EM) facilities, including instrument development. Specifically I did research on muscle structure using STEM (scanning transmission electron microscopy). Later I examined the structure of membrane proteins with Hanns Weiss, who was one of the first group leaders. I am happy that EMBL is still actively supporting electron microscopy. It has one

of the best facilities in Europe or even the world.

My wife, Belinda Bullard, who is a biochemist, came to EMBL from England in 1988, where she had her own position. Long-distance relationships are typical for scientific families! We had collaborated on several projects earlier and have been working together ever since. She is also interested in muscle research.

How has science changed over the years?

It is more automated now, e.g. working with genomes or developing microarray techniques. There are also attempts being made to automate electron microscopy. The emphasis is more on "bulk biology" with specimen preparation and high throughput. This is good in some ways, but bad in others. With fast techniques, only the big picture is visible and the smaller details, which can be quite exciting, are often missed.

How was EMBL different in earlier years?

When an organization is smaller, its people are more visible. There were some interesting characters back then, like David Meyer, an American who founded the first diving club. That was the very first club sponsored by the Staff Association. The second was the Alpine club, which I helped found in July 1979. We tried to go to the Alps every second weekend, mainly to hike. The club was very active until about 1985; at its peak there were about 30 members. But then participation fell off because people left the Lab. It has become active again recently, but the emphasis is more on rock climbing now.

Another memorable character was Arthur Jones, who was head of electron microscopy development and was very humorous. He was a sort of father figure to all electronic microscopy groups at EMBL.

There were also a lot more parties in earlier years. Each national group had its annual party: the Germans had Fasching, the French July 14, the Dutch celebrated their Queen's birthday, the Swedes held their Festival of Light, the English Guy Fawkes and the Scottish Burns' Night. None of those



Photo by Mantetta Schupp

After 29 years at EMBL, Kevin Leonard prepares to ride off into retirement on his "old-timer" motorcycle.

are held any more except Burns' Night. The annual Staff Association Summer Party has more or less replaced them. EMBL became so big that the small, friendly character of the national parties wasn't possible any more.

What do your retirement plans look like?

No scientist ever really retires! We have a house in Cambridge and will go back there. I hope to be able to collaborate on projects with research groups in the UK. My wife will also be able to carry on her work in the UK.

Other than that I plan to rebuild and race my seven "old timer" motorcycles (the newest one was built in 1983). I will be back in Germany occasionally for these racing events, which are not taken too seriously and are good fun. So I guess I am only "semi-retiring."

— interview by Ann Thüringer

New investment for EMBL Technology Fund

The EMBL Technology Fund (ETF) has invested in *immatics biotechnologies GmbH*, an independent biopharmaceutical company from Tübingen, Germany (www.immatics.com). Based on proprietary technologies, *immatics* identifies and validates novel drug candidates for therapeutic use in a range of cancer diseases. Drug candidates are based on short immunogenic peptides with the capacity to stimulate the patient's immune system. Apart from rapid clinical development in the field of renal cell carcinoma, *immatics* additionally strives to identify novel peptide antigens in conjunction with other common types of cancer. The ETF joins the existing venture capital syndicate consisting of Wellington Partners, 3i Group, Grazia Equity, Merifin Capital and SEED/L-EA. The 0.5 million Euro investment increases the volume of the first financing round for *immatics* to a total of 8.25 million Euro.

Stop the press!

EMBL & cetera has just learned that the US National Alliance for Research on Schizophrenia and Depression (NARSAD) has given a two-year, \$60,000, Young Investigator Award to EMBL-Monterotondo's Cornelius Gross. Cornelius will use the grant to study gene and environmental interactions underlying adult anxiety, using a mouse model. NARSAD, the largest donor-supported organization in the world, is devoted exclusively to funding scientific research on psychiatric disorders.

the EMBO corner

EMBO in the Orient

In 1997, scientists from many of the Asian and Pacific rim countries got together to work out a plan to promote molecular biology within the region. Their idea was to form an organization similar to EMBO, which was founded by European scientists 40 years ago. Thus, the Asia Pacific International Molecular Biology Network (A-IMBN) was born and grew with help and advice from EMBO and other international bodies. The main aim of the organization is to generate interactions between scientists within, and to build contacts with those outside, the region. Since the establishment of the A-IMBN, EMBO has sponsored a plenary lecture by an EMBO member at their annual

science for teachers

By now you must have heard of EMBL's new education facility – ELLS, or the European Learning Lab for the Life Sciences – devoted to giving high school teachers a chance to do real science again. ELLS was established under a European Union grant called "Continuing Education for European Biology Teachers," coordinated by EMBO. Now one year old, the project has already touched the lives of teachers from across Europe.

In our 3-day practical courses, called LearningLabs, teachers get scientific demonstrations and do experiments, some of which they can take to the classroom. Courses are rounded out by seminars, visits to facilities, exchanges of teaching practices, discussions on the impact of science on society, and explorations of teaching resources on the web. As well as bringing groups of teachers into the lab for practical courses, the ELLS staff and some external contributors have launched a collection of materials that show what's going on in science and that teachers can download for use in class. Have a look at some of the projects at the ELLS website – www.embl.org/training/ells/. They may give you ideas. We welcome contributions from scientists who'd like to turn their work into stimulating, interesting projects for schools.

At home, teachers adapt the activities they experienced at EMBL to their schools and they send us valuable feedback. We receive

conference, which is held in different locations throughout Asia; EMBO also continues to have an advisory role in the directions that the organization is taking. More recently, EMBO decided to co-fund and co-organize two practical courses with this organization.

The first meeting, "Fluorescence Microscopy of Living Cells," organized by Philippe Bastiaens and Rainer Pepperkok, took place in the region in 2002. The second, on "Microarray Techniques: Applications in Biomedical Research," was organized by Wilhelm and Alexandra Ansorge and Christian Schwager, with input from the EMBO World Programme Office, at the Tokyo Medical and Dental University in March of this year.

EMBO courses always have a very healthy international participation, but it was impressive to see even more nations – some of which aren't represented often enough. The participants were extremely appreciative and eager to learn new things, and the instructors were impressed by the quality of the presentations. Wilhelm reports, "It was clear that Asia is a scientific giant in the process of awakening. Undoubtedly in the

suggestions on how to make activities more accessible to students, pictures and reports. Sometimes we are able to go to classrooms and give the students a flavour of what happens in a modern molecular biology lab.

In November 2003, Gillian Brunt (Neumann group) went to the class of teacher Scott Stalp at the American High school in Heidelberg. "I gave a talk about the basic science we're doing in the Neumann lab and explained the reasons for using zebrafish as a model organism," Gillian says. "The children were very receptive and asked many questions. I think that both they and I learnt a lot from the experience."

By Christmas 2003, Alexandra Manaiá from the ELLS staff had presented a seminar/demonstration on Developmental Biology at the Escola Secundaria Professor Reynaldo dos Santos in Vila Franca de Xira (Portugal). She also paid a short visit to the Basic school in the same town. In April 2004, Alexandra presented another activity on Developmental Biology at the Escola Carolina Michaelis, Porto, Portugal. "Science classes in Portugal still tend to be too theoretical," says José Mário Felix, a teacher at the school. "Our students really appreciate the opportunity to do hands-on experiments. In this way they are no longer just passive listeners and become active, enthusiastic learners."

Another way of amplifying the ELLS network is organizing training activities outside EMBL-Heidelberg together with national

next few years we'll be increasingly eager to go to congresses there to see the scientific innovations being made in the Asia Pacific region." He was also pleased to see that EMBL know-how and technology has made its way to Asia – via commercializations and licenses.

This seven-day practical course consisted of lectures by Japanese and European speakers as well as practical lab and computer work led by EMBL/EBI instructors. Twenty scientists participated in the course – six from Europe and the rest from the Asia Pacific region. After an intensive course with topics ranging from the technical implementation of microarrays to the results of their successful application by the lecturing scientists, the participants reported the meeting to be very beneficial and successful. EMBO scientists also greatly benefitted, as many contacts were made and collaborations discussed. Organizers from Japan (Katsuro Koike, Nobuo Tsuchida, and Masataka Nakamura) as well as those from Europe were very satisfied with the impact that the course had and enthusiastically discussed future collaborative ventures.

– Mary Gannon

research or education institutions. Courses in partnership with German, Italian and Portuguese institutions are already scheduled.

Julia Willingale-Theune joined ELLS in June as a new Education Officer. After a successful career in plant biochemistry, Julia moved into science communication. Her interdisciplinary background will certainly strengthen and enlarge ELLS's activities.

National education and research institutions willing to organize activities in collaboration with ELLS are welcome to contact us at ells@embl.de.



Photo by Alexandra Manaiá

Students at the Escola Secundaria Professor Reynaldo dos Santos in Vila Franca de Xira, Portugal, try their hands at preparing chicken embryos for examination under the microscope during a visit by ELLS staff to their school.

French researchers gather at CNRS headquarters in Paris for a look at EMBL

Around 150 French scientists gathered at the CNRS headquarters in Paris on April 27, 2004, for an in-depth look at EMBL and its activities. The event, organized by EMBC and EMBL delegate Myriam Né Chad, was opened by the Director of Research for the French Ministry of Research, Elisabeth Giacobino, and a representative of Jérôme Pasquier, the Director of Scientific Cooperation for the French Ministry of Foreign Affairs.

Senior representatives from EMBL Fotis Kafatos, Stephen Cusack, Nadia Rosenthal, Eric Karsenti and Janet Thornton gave an overview of the Lab's activities, while Group Leader Nicolas Le Novère and post-doc Stéphanie Blandin presented their experiences at EMBL. Les Grivell from EMBO also reported on the latest from the E-BioSci initiative. The presentations were followed by an informal question and answer session

between the audience and the EMBL delegation.

"This meeting was organized for two reasons," says Eric Karsenti. "First, the French research community stands to benefit from knowing more about EMBL and the possibilities that the Laboratory can offer in the life sciences. Second, it is important to

inform scientists from the life sciences in Europe about the unique organization and collective attitude of the scientists working at EMBL. This is a model that is very different from national systems in Europe and America. The gathering organized by the French delegates was a valuable initiative, and should be repeated in other countries."



From left to right: Director for CNRS International Affairs Jean-Luc Clément, EMBL Director General Fotis C. Kafatos, Director of Research for the French Ministry of Research, Elisabeth Giacobino, P. Barré from the Ministry of Foreign Affairs, and EMBC and EMBL delegate Myriam Né Chad.

The siege of Yersinia

Although it was not easy on March 27 (France won 24:21 and the rugby grand slam) and again on June 13 (France won 2:1 in the Euro 2004 clash), French and English people are trying hard to be nice to each other – for it is the centenary year of the Entente Cordiale. In this spirit, Stéphanie Blandin (Vive l'Angleterre!) linked up with Aidan Budd and Toby Gibson (Allez la France!) to expose bacterial thieves that have stolen our very own $\alpha 2$ -macroglobulin gene*. This gang of microbes have gone and passed the booty around amongst themselves like – well like those pesky French three-quarters playing in the Parisian spring with the sun on their backs. Worse still, the

gang are turning our own defensive protein (which traps microbial attacking proteases) against us. BACT- $\alpha 2$ M looks to be part of a periplasmic defence system, for use when the outer membrane has been breached by the host immune system. Clearly these thieving prokaryotes must be punished! Of course the punishment must also fit the crime: Could we use the stolen protein as a vaccination target, so that our immunity could more effectively exploit the opened breach? We hope so. Sieging Harfleur is so passé and our Entente EMBLiale would prefer to lay siege to a common enemy like the plague bacteria:

*Once more unto the breach, dear friends,
once more;*

*Or close the wall up with our Protein
dead.*

The point of the story is this: Do come by and show us your favourite sequences – usually we don't find anything interesting but sometimes we do...

– Toby Gibson, *Biocomputing*
V109, ext 8398

*Bacterial $\alpha 2$ -macroglobulins: colonization factors acquired by horizontal gene transfer from the meta-zoan genome? A. Budd, S. Blandin, E. Levashina and T. Gibson. *Genome Biology* 2004, 5(6):R38

PhD students announce science writing competition

"Receptor mediated endocytosis, nuclear magnetic resonance or non-sense mediated decay ..." Do scientists only feel comfortable if they can hide behind complicated technical terms or have they simply forgotten that *hox*, *jak* and *ras* are not everybody's daily business? So junk the jargon and show that high quality science can be communicated in understandable language!

The organizing committee of the 5th International EMBL PhD Student Symposium, "Design of Life – Learning from Nature," has launched a scientific writing competition, and it is open to all European PhD students. Entries should be in the form of an essay that communicates a scientific

issue to a non-scientific audience and is related to the topic of the symposium. Submissions should be sent in electronic format to the symposium committee by November 1, 2004. Special attention will be given to original and innovative styles of writing.

One novel aspect of this competition is the approach that will be used to evaluate entries. Representatives from EMBL's European Learning Laboratory for the Life Sciences, Science and Society programme and the Life Science Lab of the German Cancer Research Center will select the winning essay. High-school students from the Heidelberg Life Science Lab will also read

the entries, thus serving as an important checkpoint to make sure the winning essay is understandable to people who have not had formal high-level scientific education.

The winner will be invited to the 5th International EMBL PhD Students Symposium, to be held on December 3-6 at EMBL Heidelberg, where the prize of 250 Euros will be awarded. All essays will be compiled in a small booklet to be distributed during the symposium.

For more information, including further submission details, visit

<http://symposium.predocs.org/>

– Fabian Filipp

report from the heads of units meeting

The Heads of Units and Senior Scientists met in Hamburg on May 10-11 and in Heidelberg on June 14-15 to discuss developments at the lab. Here's a brief summary:

- A new **internal policy for bioethics** has been distributed and is also available at <http://emblorg.embl.de/staffonly/personnelmatters/personnel/policies.html>.
- **Transgenic services** are provided in both Heidelberg and Monterotondo. Projects will be allocated to a location depending on resources available at the time.
- A proposal for an **EMBL International Centre for Advanced Training (EICAT)** has been prepared by Matthias Hentze and Anne Ephrussi, with input from the

Graduate Committee and SAC, to unite all training activities at EMBL (the International PhD programme, practicals, courses, workshops and conferences, postdoctoral training, science for teachers and sabbatical visitors) under one label. The aim is to improve coordination between the various activities as well as to increase visibility for EMBL's training services to attract partners, additional funding and new participants.

- **Pink seminars** will continue to take place on Wednesdays at 1 pm in Heidelberg. Group Leaders may also now choose to give their talks at one of the Outstations. Talks should be tailored to a broad scientific audience.

Tips and tricks for the new phone system at EMBL-Heidelberg

In March, EMBL-Heidelberg's building maintenance team swept through the Lab and the Boxberg Guest House and installed more than 700 new telephone sets. The appliance and software technology of the previous system had become outdated, so with the expiration of the rental contract, it was time to upgrade.

There are several advantages to the new digital system: it is Euro-ISDN compatible; more lines are now available to accommodate the ever increasing number of staff at the Lab; computer connections between telephones and PCs/Macs have been created; and the switchboard exchange and cost recording systems have been renewed, making for easier handling and accounting.

The new system enables group leaders and secretaries to use not only digital telephoning but also the UMS (Unified Messaging System, which combines telephones with fax, e-mail, voice mail, sms, and web integration) and CTI (Computer Telefonie Integration, which allows you to make tele-

phone calls through your computer). In-house training for these features will take place during July.

Tips & tricks:

To make internal calls, remember to dial an 8 before the 3-digit extension. To call EMBO, dial a 5 instead of an 8 before the 3-digit extension. Telephone numbers do not change when calling from the outside.

To make a three-party call, make a normal phone call to your first partner. While this person is on the line, dial the second number, and wait until that partner picks up. Now dial "3" and *voila*, all three partners can speak together.

To forward a call, dial the internal number, wait until the partner has answered, then hang up.

Call back for missed calls depends on the type of telephone set you have. For full instructions on this and other features, visit www.embl-heidelberg.de/LocalInfo/telephone/

from the staff association

Bipartite meetings. The Staff Association has initiated regular bipartite meetings with the EMBL management in order to keep the flow of information running smoothly in both directions. The first meeting was held on May 4, the second is planned for July 6.

Working group. In April, two of our representatives participated in the first meeting of the Council working group on the Terms and Conditions of Employment, which is reviewing EMBL salaries and benefits as compared to other international organizations. Such reviews are carried out every five to seven years.

Volunteers. Feel like you're not quite in the picture about the Staff Association? Then help us by designing one of the following: a new version of our newsletter, the Bulletin; informational posters; or a web site for the doctors' database. You provide the layout and we'll provide the contents.

Video club bills. A reminder that the bill you may have received for the period March 2003 – January 2004 is for rentals from the old collection system and is separate from any monthly e-mail reminders you have received from the Library since February. Please pay your old bill so that we can buy the newest releases for the DVD collection.

Something got me started. The European Molecular Biology Organization (EMBO) has just launched its new service, the Life Sciences Mobility Consultancy <http://mobility.embo.org>. This online service is designed to give researchers worldwide easy access to information on mobility within Europe. It offers searchable information on grants, fellowships, awards and training courses in the life sciences. Furthermore it hosts a job page advertising open positions in science Europe-wide and a scientific collaboration partner database inviting all interested scientists to post their research profiles.

The Protein Expression and Purification Unit

has been reorganized. Ann-Marie Lawrence has joined the group as an insect cell specialist, and another expert will soon join to take care of analytical biochemistry (analytical ultracentrifugation, fluorimetry, calorimetry). The facility's web site has also been updated to include special offers, tips, and direct access to the list of the projects. Check it out at www.embl-heidelberg.de/ExternalInfo/geerlof/draft_frames/index.html

The EIROforum Assembly took place on May 4-5 at EFDA-JET, Culham, UK. The DGs of the EIROforum organizations discussed a new vision paper, updates on the activities of the different working groups and developments within their institutions. EC Director General for Research Achilleas Mitsos updated members on developments regarding the EC's next framework programme. In a separate meeting, press officers from the EIROforum organizations gathered in Heidelberg on May 12 to exchange ideas, share experiences, and discuss ways to work together in the future.

News from EMBL Centres. An agreement has been reached for funding activities within the first four centres. The Centre for Disease Mechanisms will: continue to organize the successful Molecular Medicine symposia series, develop a mouse database and sponsor one postdoc from a medical school each year. The Computational Biology Centre will develop a website, organize computational biology training and develop a database to analyse gene expression in 4D. The Centre for Molecular and Cellular Imaging will develop tools for image quantitation and a 4D image database as well as provide training in imaging methods. The Centre for High Throughput Functional Genomics will provide scientific and technical support to scientists who are interested in setting up their own high-throughput experiments.

people @ EMBL



Jens Reich has joined EMBL as a consultant. Among his many accomplishments, Jens wrote a pioneering book on systems biology (Reich, J. & Selkov, E.E., *Energy Metabolism of the Cell. A Theoretical Treatise*, Academic Press, London/NY, 1981). He is also Emeritus Professor of Bioinformatics at Humboldt University Berlin and continues to lead a project on the genetics of human lipid metabolism at Max-Delbrück-Center in Berlin. Jens is also known for his active participation in the bioethics debate in Germany, where he continues to serve on the National Council of Bioethics. Jens will spend part of his time at EMBL as a consultant working with scientists in computational biology and other areas. He will also be involved in the Lab's Science and Society activities.



Reinhard Schneider joined EMBL-Heidelberg as a Team Leader in May. He received his PhD in Chris Sander's group at EMBL in 1994. He continued his research at EMBL until 1997 when he co-founded LION bioscience AG in Heidelberg. In 1999 he moved to Boston to set up LION's US operations and a Center of Excellence for Target Finding for the Bayer Corporation. He moved back to Heidelberg in 2001 to become the Chief Information Officer for LION. After this management experience, he looks forward to be involved again in "hands on" activities.

other appointments

Daniela Jaenicke has joined EMBL-Hamburg as the Administrative Project Officer for BIOXHIT (see page 4 for more).

awards, honours & cetera

Former predoc **Andrea Herold** has received the "Preis der Unterfränkischen Gedenkstiftung" from the Bayerische Julius-Maximilians-Universität Würzburg. The 500 Euro prize was awarded on May 11 to Andrea in recognition of her thesis work entitled "The role of human and Drosophila NXF proteins in nuclear mRNA export."

Frank Gannon has been elected a member of the Academia Europaea, a non-governmental association, founded in 1988 with the aim of promoting learning, education and research across Europe. Frank will be formally inducted into the Academia during a ceremony to be held at the Academia's annual conference in Helsinki in September 2004.

Long-time EMBL collaborator **Amos Bairoch** (Swiss Institute of Bioinformatics, SIB, Geneva) has been awarded the 2004 Pehr Edman prize. The award, funded by Applied Biosystems, Inc., is given to scientists who have made significant contributions to the field of protein chemistry, structural biology and proteomics. Amos launched SwissProt, the highest quality protein database in the world, which has been run as a collaborative project between EMBL and the SIB for almost two decades.

a note of thanks

EMBL postdoc Emmanuel Reynaud would like to thank EMBL staff who helped collect and send 2,500 kg worth of laboratory equipment to B. Klyheminstry University in Cherkasy, Ukraine and A. Xhuvany University in Elbasan, Albania. The donation was an initiative organized by *Adéquation et Développement*, a non-governmental agency that aims to help schools, colleges and universities. Particular thanks go to Fotis Kafatos, Prof. Campbell (FEBS), the Mazurier family, the Szilard Library team, the Purchase Department, Vladimir Benes, Richard Carmouche, David Ibberson, Sophie Chabanis-Davidson, Birgit Schramm, the Stores team, Building Maintenance, and the boys who helped lift four palettes right after a Friday evening beer session... "Everyone gave a bit of time and muscle," says Emmanuel, "and helped us to make it possible. Merci beaucoup."

Who's new?

Yasmin Alam-Faruque (Apweiler), Alastair Baldwin (Zhu), Olivier Billet (Cusack), Sandor Brockhauser (Grenoble Instrumentation), Matias Castro (Zhu), Wei Mun Chan (Zhu), Adam Cliffe (Rørth), Lorenzo Corsini (Sattler), Amaicha Mara Depino (Gross), Michael David Donnelly (Sequence Database), Yann Dublanche (Serrano), Florine Dupeux (HTP Crystallization), Eric Fernandez (Computational Neurobiology), Stefan Fiedler (Hermes), Frank Gabel (Sattler), John Gamble (Apweiler), Charles Girardot (Furlong), Chellappa Gopalakrishnan (Sequence Database), Uta Haselmann-Weiß (Antony), Javier Herrero (ENSEMBL), Simon Holton (Wilmanns), Julius Jacobsen (Apweiler), Phil Jones (Zhu), Taner Karalas (Scientific Instruments Maintenance), Jack Daniel King-Scott (Tucker), Vasudev Kumanduri (Zhu), Ann-Marie Lawrence (Protein Expression and Purification Facility), Binoy Matthew (Lamzin), Lisa Janet Mullan (Thornton), Max Nanao (Cusack), Katarzyna Oktaba Sosin (J. Müller), Aurelien Olichon (Surrey), Thomas Portmann (Treier), Antony Francis Quinn (Zhu), Tim Rayner (Brazma), Friedrich Reinhard (Chemical Genomics Core Facility), Catarina Resende (Antony), Gabriella Rustici (Microarray), Ignacio Enrique Sanchez (Serrano), Francesco Sottile (OIPA), Annett Spanner (Rosenthal), Julia Willingale-Theune (ELLS), Brendan Vaughan (Lopez), Nisha Vinod (Sequence Database), Hiroki Yoda (Wittbrodt)

events @ EMBL

3 July 2004

EMBL-Heidelberg

The Joint Annual EMBL-Staff Association Summer Party. Don't miss it!

Aug 28 - Sept 1, 2004

EMBL-Heidelberg

6th EMBL Transcription Meeting

November 22-23, 2004

EBI Hinxton

Symposium on Alternate Transcript Diversity – Data, Biology, and Therapeutics

For more events, see

www-db.embl.de/jss/EmblGroupsOrg/t_1

Having a jolly good clean out?

Anne Walter regularly collects second-hand clothing, shoes, and other items, like bedding and sleeping bags, for the Heidelberg Red Cross. If you've got used items that are in good condition and can be put to good use, pack them up neat and tidy and leave them in front of Anne's office (V309), or give her a call at ext. 8522.