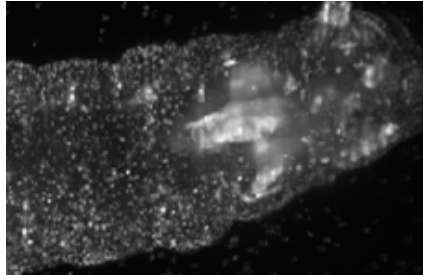




Monterotondo celebrates mouse house ...page 8



Under the 3D microscope ...page 3



EMBL DG joins Pontifical Academy ...page 5

“Centres” to promote cross-Unit research

We know that lots of you have been waiting to do your “dream” interdisciplinary research project – if you could just link up to the right collaborators, get input from a group in a dark corridor way down behind the Mosquito Feeding Room, and ...what was that other thing? Oh yes, funding. Well, here’s your chance. EMBL is establishing several new thematic “Centres” to more actively encourage new projects across disciplines and EMBL Units. Coordinators of the Centres are currently soliciting project proposals. Find out more [on page 2](#)

Science in the European Constitution

The European Union is making history by involving citizens in composing a new Constitution – and science is mentioned. The new treaty will have an impact on European research policy and its implementation. Claus Madsen from the European Southern Observatory and Christian Boulin explain [on page 4](#)

Grand challenges in global health

In October, the Foundation for the National Institutes of Health and the Bill and Melinda Gates Foundation announced the first 14 scientific challenges that will be the focus of the “Grand Challenges in Global Health” initiative – a \$200-million medical research project which aims to help overcome roadblocks and lead to rapid progress against diseases affecting the developing world. EMBL Director-General Fotis C. Kafatos was one of three European experts to participate on the project’s scientific board. Learn more about this exciting initiative at www.embl.de/ExternalInfo/oipa/pr2003/pr171003.html

A creative approach to “Physics and Life”

If you couldn’t find a good physics or biology teacher during the second week of November, it’s because they had all ridden the train, flown, or biked to Noordwijk on the coast of Holland. Their destination was the campus of the European Space Agency, where they made loud noises, blew things up, explored bizarre uses of magnetism, or put on performances to demonstrate the best of European high school science teaching. (Not to forget the liquid nitrogen ice cream.) This was the third Physics on Stage, sponsored by the EIROforum (that includes EMBL) and the European Commission. EMBL is helping to collect the products – a set of unique classroom teaching resources – into a public on-line collection. A good time was had by all, especially by Eric Karsenti, who explained the wonders of microtubules and self-organization in the keynote speech. Find out more at the EIROforum website: www.eiroforum.org

There must be something in the water at EMBL

Five of them were born in Monterotondo in the past year alone, and another’s on the way... Photos with birth dates, birth weights and other measurements are taking over Programme announcement boards. Practically the entire Mattaj lab seems to have been infected with the virus...

Across the EMBL sites kiddywinks, *Nachwuchs*, *bambini* and *enfants terribles* are popping up everywhere. EMBL is undergoing a veritable baby boom. Is it something in the water?

EMBL&cetera contributor Selene States investigates... [on page 10](#)

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Joint appointments and Centres to strengthen EMBL's cross-disciplinary research

As research in the life sciences moves toward Systems Biology (a shift away from "one gene - one function" thinking towards viewing living systems as based on integrated molecular complexes), EMBL finds itself well positioned to face new challenges. Though the Laboratory has a strong tradition in fostering collaborative research, most collaborations involve only two groups and happen within Units more often than across them. EMBL has introduced two mechanisms to promote interdisciplinary activities more widely, systematically and effectively:

1. Joint appointments. More than 20 Group Leaders have now been appointed to two different EMBL Units, strengthening exchange across the Laboratory.

2. EMBL Centres. EMBL is establishing a number of thematic "Centres" to promote new projects across disciplines and EMBL Units. They will involve many scientists (from Group Leaders to PhD students), in critical areas that cut across EMBL's vertical structure represented by the Units.

The Centres will be virtual, rather than limited to one EMBL site, catalysing the creation of electronic as well as "in person" discussion groups, seminar series, workshops, and retreats of faculty members in different Units who have similar or complementary technical and intellectual interests. Centre websites will provide information, expertise, and a means of communication.

report from the heads of units meeting

The Heads of EMBL's Units (Research Programmes in Heidelberg and Monterotondo, plus the Outstations) meet regularly to discuss developments affecting the Laboratory. Their last session was held on November 6-7 at EMBL-Monterotondo. Here are some key points that were discussed:

1. EMBL Centres. Following a status report on the development of the Centres, (see above), coordinators of the Centres were asked to identify interested participants (Group Leaders, postdocs, PhD students) and gather project proposals to be discussed and decided upon by the end of this year. Web sites will be introduced to support communication within the virtual Centres. Mechanisms to improve internal communications throughout the Lab were also discussed.

2. Key dates for next year. Lab Day will take place on June 15-16, 2004, at the main Laboratory in Heidelberg.

The Faculty Retreat will take place on December 3-5, 2004, near Grenoble, and will include both strategic and scientific topics.

Centres will also facilitate the development of methods and rapid technology exchange across the Laboratory. They will provide important input to the development of the Laboratory's core facilities.

Currently the Units administer most research resources: personnel, budgets and shared equipment. Centres should be more flexible and dynamic, open to new participants, quickly adapting to changes of emphasis within molecular biology. New projects will be supported by modest funds from the Lab, matched by the Units of the participating groups. Through the Centres, Units will have the chance to invest in larger-scale collaborative research projects that they want to do, but might not be able to do on their own.

Coordinators of the Centres are currently soliciting ideas for activities. Project proposals will be discussed and decided upon by the end of this year. If you are interested in participating, contact a coordinator.

The Centres currently being developed are:

Computational Biology. This Centre will include scientists whose major focus is the use and development of computational tools, and experimentalists whose research interests now heavily depend on computational approaches. The major goals are the efficient and wide dissemination of software tools and the spread of advanced computa-

tional know-how throughout all Units of EMBL. (Coordinators: P. Bork, V. Lamzin, J. Thornton)

Disease Mechanisms. This Centre will extend and reinforce the laboratory's current Molecular Medicine activities and strengthen initiatives of EMBL faculty members in the use of mammalian and lower organism models to investigate the mechanisms of human diseases. (Coordinators: M. Hentze, N. Rosenthal, M. Pasparakis, J. Wittbrodt)

High-Throughput Functional Genomics. This Centre aims to promote and facilitate high-throughput approaches essential for efficient studies on functional genomics. Participants will share and cooperatively develop their expertise in all aspects of high-throughput biology, and will reinforce the shared infrastructure of EMBL. (Coordinators: E. Furlong, F.C. Kafatos, L. Steinmetz)

Molecular and Cellular Imaging. Imaging is now a crucial technology for research at all levels of biological organisation, from the atom to the organism. This Centre will make imaging tools and training widely available across the Laboratory. It will integrate the best software packages and algorithms into an appropriate computing infrastructure, and thus produce a valuable and evolving set of tools of use to structural, cell, developmental and computational biologists. (Coordinators: J. Ellenberg, M. Wilmanns)

First joint PhD degrees from EMBL and Heidelberg University awarded



On Saturday, November 15, 2003, Clemens Grabher and Thomas Vaccari received their joint PhD degrees with Heidelberg University during a festive ceremony in the magnificent "Alte Aula." These degrees are the first to be awarded jointly by EMBL and Heidelberg University since the two institutes signed a partnership agreement in December 2002. Uli Wiehe also received his degree from the University during the ceremony. From left to right are: Nils Metzler-Nolte (Vice-Dean, Heidelberg University), Clemens, Matthias Hentze (Dean of EMBL's Graduate Studies Programme), Thomas and Uli.

A new perspective on microscopy: Ernst Stelzer takes a 3D view

EMBL biophysicist Ernst Stelzer would rather walk around a cell and admire it as a sculpture than look at it flat and painting-like or pressed onto a coverslip. "Scientists like myself are so used to squashing samples onto slides," he says, "that we might not even think of looking at them in suspension, in their physiological context."

Ernst, Jim Swoger and Jan Huisken showed me a fundamentally new type of 3D microscope that they have just developed. It can, they assured me, provide just such a view of tissues or even whole organisms.

Ernst says the method is surprisingly simple. A sample expressing a protein with a fluorescent tag is suspended in agar and placed in a cuvette. A laser beam passes through a cylindrical lens, causing an illumination of a single plane in the cuvette. The sample is then moved through this sheet of light, so that the observer, looking perpendicularly to the laser, sees consecutive slices through the specimen. Fluorescent images are then recorded from several different directions.

Conventional microscopes see confusing multiple layers in the tissue. One of the chief advantages of the 3D system is that the laser focuses on a single optical section, and no other region in the specimen, at a time. This greatly increases the information content of the final image.

molecular medicine mini-report:

Cystic fibrosis researchers meet at EMBL for molecular medicine symposium

Cystic fibrosis (CF) and other secretory defects were the topic of EMBL's 6th Molecular Medicine symposium, held this autumn. CF is a genetic disease that affects about 60,000 Caucasians throughout the world. The defect is caused by point mutations, the most common being $\delta F508$, in the cystic fibrosis transmembrane regulator (CFTR) that prevents proper folding of the protein and leads to premature ubiquitination and degradation. The CFTR is normally abundant in all epithelia and is essential for ion conductance and the water balance in lungs, gut, etc. Accordingly, CF, the CFTR, and ion secretion received the most attention of the physiologists, molecular biologists, and physicians from eight European countries and the US present at the meeting.

The symposium was opened by Paul Quinton from the University of California, a pioneer in the field of CF. Paul works on the effects of the genetic defect in the sweat duct. He surprised listeners with the finding that glutamate acts intracellularly in sweat glands, thereby modulating the chloride

A major disadvantage in observing fluorescently tagged proteins in ordinary scanning microscopes is that over time, the fluorescent signal becomes weaker, due to "photobleaching." However, since the 3D microscope illuminates only one sheet of the specimen at once, instead of "scanning" with a laser point, exposure time to the laser and the resulting photobleaching is kept at a minimal level. Therefore, it is possible to carry out live-imaging for a relatively long period of time, and to take more pictures.

Another important property of the system is that a high axial resolution is achieved, which is equal to that in both the X and Y axes, whereas in the conventional confocal microscope, the resolution of one axis is always lower due to the properties of a single lens. In fact the 3D microscope can resolve up to 200-300 nm in all three dimensions. To demonstrate this, Jim showed me a beautiful image of a spherical pollen, 12 micrometers in diameter.

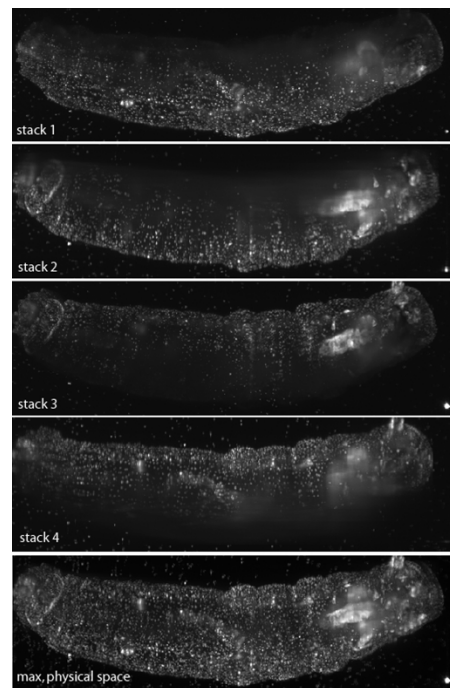
The microscope is not difficult to use, says Jan – just put your sample in and look! Anyone in EMBL may ask Ernst's group for permission to use it. In the future, they are planning to integrate additional features for laser cutting, and FRAP.

"Looking at a 3D object in space instead of trying to project it into 2D, seems like an obvious method. Why has nobody else come up with this idea before?" I asked.

"I've always wondered that myself," Ernst replied.

It just goes to show that we biologists need the physicists at EMBL to bring in a fresh perspective!

– Cleopatra Kozlowski, EMBL predoc



A *Drosophila* embryo recorded from four different directions with Ernst Stelzer's new 3D microscope. The bottom image combines the views and reveals otherwise hidden details. The sample was provided by H. Varmak & G. Gonzalez.

conductance to bicarbonate absorption. The session was continued by talks about the role of ion channels, including that of CFTR, on intestinal transport.

The afternoon session was devoted to talks and discussions about the complicated interplay of the various ion channels as well as protein trafficking and various mouse models. The latter was presented by Hugu de Jonge from Rotterdam.

Saturday's talks covered the regulation of kidney ion channels, pancreatic exocytosis as well as the interplay between CFTR and anion exchanger proteins. Saturday morning concluded with two talks on mucins, their secretion, and their role in CF-related inflammation. After lunch, discussion focussed on calcium-activated chloride channels, which are considered one of the more promising targets for a potential therapy of CF, because these appear to be the only anion channels not affected by the disease. The meeting concluded with a session on novel experimental forms of CF treatment,

ranging from drug candidates that interfere with intracellular signalling to high-throughput approaches, to promising attempts with natural compounds.

The meeting, held on November 7-8 at the main Laboratory in Heidelberg, was co-organized by Carsten Schultz (EMBL) and Frank-Michael Müller (Cystic Fibrosis Center, University of Heidelberg) with enormous help from EMBL's Course and Conference Office. The Molecular Medicine symposium series is held on a regular basis, across the different EMBL sites. The previous symposium on cardiovascular diseases took place in Monterotondo in May. Group leaders interested in bringing a medical subject forward by organizing a symposium within the series are invited to contact Matthias Hentze and the new Centre for Disease Mechanisms (for more on this new initiative, see page 2).

– Carsten Schultz

In the political incubator: What will a European Constitution mean for scientific research?

Over the course of 17 months, 105 wise men and women have been preparing a proposal for a European Constitution. This work is likely to have a direct bearing on European science.

The legal basis of the European Union is a patchwork of four treaties. In December 2001, the European Council called for a Convention for the Future of Europe to "consider the key issues arising for the Union's future development and try to identify the various possible responses." Meeting for the first time in February 2002, chaired by Valéry Giscard d'Estaing, the Convention was charged with making proposals for a substitute for the treaties and finding ways to ensure the further development of the Union as it expands to 25+ countries.

The result came in July 2003, with a draft for a Constitutional Treaty for the European Union, composed by the Convention's 105 members, representing the Member-State and Accession-State governments and parliaments, the European Parliament and the Commission, and 13 official observers. Furthermore, it was supported by a "Forum" which enabled wider consultations and debates with the civil society by means of hearings and a website.

Not surprisingly, both the work style and the conclusions of the Convention were subject to intense public debate and, often, disagreement. However, what the EU has tried is historic, never done before: writing a constitution in public.

Another historic aspect of the Constitution is its treatment of science, and here our communities have contributed. Under the chairmanships of Luciano Maiani (CERN) and

Fotis Kafatos (EMBL), the EIROforum has played a proactive role in the process through both verbal and written submissions to the Convention, drawing attention to the crucial importance and specific needs of science in Europe.

The draft is now being discussed by the Intergovernmental Conference (IGC), aiming to arrive at a new Treaty by the year's end. To come into force, it will have to be ratified by all Member-State parliaments, in some cases involving national referenda: this may last until 2006, and will certainly lead to changes. Nonetheless, the community needs to be informed about the current draft text; in its final form, the Constitution will have a direct impact on science policy and EC support for research for years to come.

Science in the Draft Convention Text

The text is divided into three main parts. Article I-3 sets out the objectives of the Union and determines that "it shall promote scientific and technological advance." (Article I-3.3). This is both very important and possibly unique: few constitutions, if any, promote advancement in science as a key objective.

Title III of Part I determines the competences of the Union. Article I-13 lists the policy areas which are shared between the Union and the Member States. Article I-13.3 stipulates that "In the areas of research, technological development and space, the Union shall have competence to carry out actions, in particular to define and implement programmes; however, the exercise of that competence may not result in Member States being prevented from exercising theirs."

This has direct relevance for our organizations. Because science is still predominantly funded by Member States, there must be an effective balance between national initiatives, intergovernmental organizations (such as EMBL) and communal actions (such as direct EC support for specific scientific projects). The article not only secures the rights of the Member States but also touches on the possibility of "enhanced cooperation," colloquially known as "variable-geometry solutions." This is important: experience shows that such solutions, *i.e.* when some countries have agreed to undertake a particular action, provide dynamic into the political process. A European research policy that allows for and supports dynamic is certainly called for.

Fundamental Rights and science

Part II defines and describes the fundamental rights of [the citizens] of the Union. With another historically-unique reference to science, Article II-13 determines that "the arts and scientific research shall be free of constraint. Academic freedom shall be respected." While there are no direct qualifications, this statement does not, of course, imply unlimited freedom. Article II-52 sets the general scope and interpretation of rights and principles; the second paragraph constitutes what legal experts call a "watertight referral clause," limiting the application of the Charter vis-à-vis Member States and other parts of the Constitution. The significance of Article II-13 is that it introduces this freedom at the level of the Union.

Strategic Forward Look 2006-2015 sets stage for Laboratory for next decade

In November, EMBL published a document called the "Strategic Forward Look, 2006-2015." Written by Director General Fotis Kafatos and Scientific Director Iain Mattaj, in consultation with a Steering Committee appointed by Council, the SFL is intended to serve as a broad outline of the directions in which the Laboratory's activities should develop over the next ten years. The document includes a discussion of EMBL's founding principles, a reaffirmation of its missions and an analysis of the Laboratory's scientific and administrative objectives for the coming decade.

Unlike the Laboratory's official Scientific Programme and Indicative Scheme, the SFL is not a request to the Member States for funding. It is a strategy paper designed to provide information to, and garner feedback from, the Member States and the scientific community.

Another important function of the SFL is to aid the search committee in recruiting the Laboratory's next Director General, who will take office in May 2005.

The full text of the Strategic Forward Look, 2006-2015 is available at www.embl.de/ExternalInfo/EMBLabout/emblsfl.pdf.

The EMBL missions revisited:

EMBL is a large-scale project for Europe. It was set up in order to promote molecular biology across Europe, and provide an attractive alternative to the United States as a workplace for Europe's leading young molecular biologists. To accomplish this, EMBL has pursued four major missions which are reaffirmed as part of the SFL:

- To be a flagship laboratory for basic, investigator-driven research in molecular biology.
- To develop and help disseminate cutting edge technologies and instrumentation for molecular biology.
- To provide facilities and services for the scientific community.
- To provide advanced training to individual scientists at all levels, from PhD students to independent investigators.

From the beginning, it was foreseen that EMBL would need to develop both critical mass and excellence in many facets of molecular biology. Once these goals were achieved, the Laboratory was intended to develop a philosophy of looking outward into the scientific community and to share widely its knowledge and expertise, to the benefit of molecular biology in all its Member States.

Operational Clauses

Part III of the draft text is entitled "The Policies and Functioning of the Union." In a sense this is the operational part of the Treaty. Section 9 (Articles 146-156) is devoted to "Research and Technological Development, and Space."

Article III-146 sets the general scene for EU research activities, stating that "The Union shall aim to strengthen the scientific and technological bases of Union industry and encourage it to become more competitive at international level, while promoting all the research activities deemed necessary by virtue of other Chapters of the Constitution."

The text of this article is not new: it is identical to Article 163 in the current Treaty. The key is its interpretation: until now, the text has been used as a justification to *de facto* exclude EU support for fundamental research. While in many areas of science, it is impossible to draw a distinction between fundamental and applied research, this formulation remains an issue of concern for us, and EIROforum has proposed modifications to the wording of this article. Should this proposal not be adopted by the Intergovernmental Conference, then we hope that at least a less restrictive interpretation can be used in the future.

Article III-149 proscribes that EU research activities must be part of a "multiannual framework programme", that "shall be enacted by European laws." This is basically identical to the current system, which comprises a "Framework Programme," the "Specific Programmes," the Rules for Participation and the "Work Programmes."

According to the draft text, the Framework Programme itself and the Rules for

Participation (as well as the rules governing the dissemination of research results) are European legal acts, hence subject to approval by the European Parliament and subsequent agreement/confirmation by the European Council. The "Specific Programmes," on the contrary, do not require parliamentary approval.

Other articles aim to support coordination between the Member States and allow the Commission to "take any useful initiative to promote the coordination."

The draft text clearly supports the notion of the European Research Area, though, surprisingly, the ERA is not explicitly mentioned. Article III-151 opens the possibility for European laws to establish supplementary programmes in which some (but not all) Member States participate; those states will finance the programmes, but with participation by the Union.

Along the same lines, Article III-152 enables the EU to participate in research and development programmes undertaken by several Member States, including participation in the structures created for the execution of those programmes, as well as cooperation with third countries and international organisations (Article III-153). Article III-152 corresponds to the current Article 169. It has been described as a potentially powerful way of boosting European cooperation in science, but so far, only one programme (concerning clinical tests in Africa) has been agreed under FP-6 and we have yet to see how effective this option is in stimulating joint research programmes.

Article III-154 provides for the Council of Ministers to adopt European regulations or decisions to set up joint undertakings or any other structure necessary for the efficient

execution of the Union's research. This could, for example, open the door for a European Research Council (ERC), currently under discussion both in the scientific community and, increasingly, at the European political level.

Three other points are worth mentioning:

Marking the definitive entry of the EU into the area of outer space, Article III-155 determines that the Union shall draw up a European space policy, including "support research and technological development and coordinate the efforts needed for the exploration and exploitation of space."

Article III-212 constitutes the legal underpinning of a European Armaments, Research and Military Capabilities Agency, which should "support defence technology research, and coordinate and plan joint research activities and the study of technical solutions meeting future operational needs."

Article III-157 (Section 10: "Energy") says that the EU shall "promote ... the development of new and renewable forms of energy." Finally, according to the draft text, the European Atomic Energy Community will continue as a separate legal framework, with some amendments to the EURATOM Treaty. The relationship between this and the Constitutional Treaty is a sensitive, difficult issue that must be solved.

It is certain that the changes in the text will be proposed and perhaps adopted. Science and education are already firm constituents of the European political agenda. The Treaty – when ratified – will provide the legal and operational framework for European science policy initiatives in the years to come.

– Christian Boulin & Claus Madsen (ESO)

EMBL DG appointed to Pontifical Academy of Sciences in Vatican ceremony



Photo courtesy of the Vatican

Fotis C. Kafatos has been appointed to the Pontifical Academy of Sciences. He received the papal insignia from Pope John Paul II on November 10, during the 400th anniversary celebration at the Pontifical Academy of Sciences headquarters in the Vatican City. Since its establishment in Rome in 1603, the Pontifical Academy of Sciences has become an international and interdisciplinary scientific body with an increasing number of distinguished scientist members. Its aim is to promote the progress of the mathematical, physical and natural sciences as well as the study of related epistemological questions and issues. Members of the academy have included Galileo Galilei, Max Planck, Niels Bohr, Sir Alexander Fleming and Max Perutz.

(Fotis is seated in the second row, to the right of Pope John Paul II)

Science & Society

Tennessee fainting goats, marching bands and ion channels: Frances Ashcroft reveals how she uses stories to tell science

"Let me introduce you to my friend Ed Jackson. Ed is the local sheriff in a small town in Oklahoma, but he also runs a ranch where he farms goats for meat. Ed is an extraordinary character but his goats are even more unusual. They are variously known as stiff-legged goats, myotonic goats or Tennessee fainting goats. This is because when they are startled or excited their muscles seize up so that their legs get stiff and they find it difficult to walk properly. Sometimes they even fall over. There are stories of the whole herd collapsing simultaneously when a train runs past their field and sounds its whistle. Or when a Tennessee marching band walks past."

The opening paragraph of a novel set in the deep South? Or the introduction to a TV documentary? Guess again: it's the introduction to a scientific lecture on ion channels and how they are responsible for the electrical activity of nerve and muscle.

The author is Professor Frances Ashcroft, full-time physiologist at Oxford University, and part-time yarn-spinner. She visited EMBL's main Laboratory in Heidelberg in December to give a talk within the EMBL Forum on Science and Society. She used the occasion to share some of the difficulties and

delights she has experienced while learning to communicate science to the public.

"Most people haven't the slightest idea what an ion channel is but they are fascinated by stories of the goats and of people who suffer from the same condition," she says, "So I use stories about human and animal disease to help explain something that is quite complex. I tell of pigs who shiver themselves to death, of children who really can die of fright, of mutations in ion channels that cause colour blindness, of how T-lymphocytes use ion channels to kill infected blood cells, and so on."

Always captivated by the idea of writing a book, but never managing to sit down to do it, Professor Ashcroft seized her opportunity in a 1998 Wellcome Trust competition which called for a life scientist to write a science book for the general reader. Though not the winning publication, *Life at the Extremes* was published in 2002 and has since won critical acclaim. In the book, Ashcroft tells of extraordinary feats of endurance experienced by humans in extreme environments, such as at high altitudes, or under high pressures. She uses historical anecdotes, enlists scientific inventors and explorers as her protagonists – and manages to sneak the latest scientific findings in there, too.

"My philosophy is that an interesting story captures the reader's attention and makes them read on. Before they realize it they are into the science," she says. "The best compliment I've had is when a reviewer wrote that my science stories are a brilliant source of tales to tell in the pub, or that they made him squirm and say, 'Stop! Don't tell me anymore!', but then he had to go back and read one more."

Ashcroft says that she has found life as a scientific storyteller immensely hard work, but also enormously enjoyable, very rewarding and a great privilege. She would also encourage other scientists to have a go at making science enthralling, informative and pertinent to the general public. "Because if we don't take the public with us, we not only deprive them of an intellectual adventure that we find compelling, we may also find that they won't be prepared to pay for it, and may even legislate to prevent us from doing some types of experiment."

Life at the Extremes is available on loan from the Science and Society section of the Szilard Library.

– Sarah Sherwood

Record turn out for the EMBO/EMBL annual joint Science & Society conference

This year's EMBO/EMBL joint Science & Society conference "Genetics, Determinism and Human Freedom," held on November 14-15, attracted more than 250 participants. This record number of attendees made their way to Heidelberg from 24 different European countries and the USA. Amongst them was a group of 30 school students from the International School of Stuttgart who actively participated, asking questions and making comments. The ever-increasing interest from different parties in this conference shows that this meeting, which has also become part of the predoc course at the EMBL, is a well-accepted tool to break down the barriers between non-scientists and scientists. It does this by promoting mutual interest, understanding, and dialogue on subjects that concern everyone.

During the two days of the conference, the audience and the panels actively discussed the role of genetic information in disease and behaviour, and downstream access to this data, with reference to its impact on society. Subjects focused on:



- Technological revolutions in genetic information gathering and application
- Genes and disease; the links and their consequences for human freedom
- The use and abuse of genetic information in justice, security and the information society
- Fast forward: human trait modulation, "Genomes'R'us", designer babies and genetic identity cards

The dialogues were particularly interesting since, as in the previous three years, the participants of the conference came from a broad variety of fields such as science, law, consumer associations, journalism, politics, patient support groups and ethics.

"This was my first conference of this kind, but I plan to attend many others. I became very motivated," said one PhD student.

Another participant commented, "I was inspired by Steven Rose's talk. I met a lot of teachers and will continue to be involved in public dialogue and students events. And I'll try to be more politically active within my area of science."

– Sandra Bendiscioli and Ellen Peerenboom

DNA-Spinner: A virtual company delivers real automation

The EMBL Genomic Core Facility (EMBL-GCF), EMBL Enterprise Management Technology Transfer (EMBLEM), PerkinElmer Life and Analytical Sciences (PE LAS), Macherey-Nagel (MN), and Hettich have formed a "virtual company" to develop automated solutions using integrated centrifugation for a wide range of applications in molecular biology and diagnostics. The project, triggered by a request to the scientific community from Denis Duboule, EMBL alumnus and Vice-Chair of EMBL-Council, was initiated by the EMBL-GCF nine months ago and has resulted in the development of the PE-Spinner platform.

Vladimir Benes, head of the EMBL-GCF, faced the challenge of purifying genomic DNA in a fast and reliable manner for downstream applications. Such a purification process requires multiple centrifugations of the sample(s). Automation of the process leads to time- and cost-cutting as well as to a reduction of error. Since a fully automated high-throughput system was not commercially available, Vladimir, Jürgen Zimmermann, and Christian Boulin began to develop a solution with the help of companies active in this field. After the initial brainstorming sessions, EMBLEM was called in to set up the contractual basis of the first "virtual company" project at EMBL. EMBL, PerkinElmer, Macherey-Nagel, Hettich and EMBLEM formed an interdisciplinary development team covering the span of know-how required in automation, biochemistry, centrifuge and application, intellectual property protection and marketing. "The goal was to develop a high-throughput

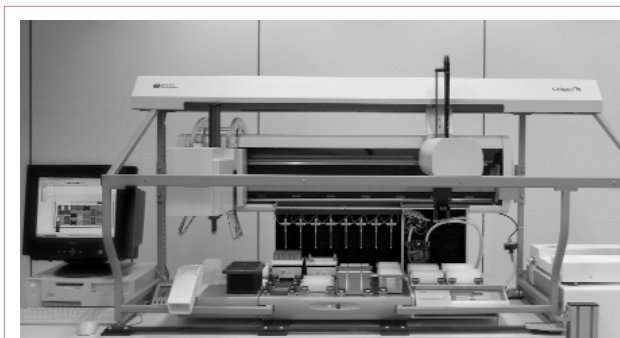
DNA purification robot with an integrated centrifuge within nine months," Jürgen explains.

The input of all the partners resulted in the DNA-Spinner platform and the prototype is up and running. Several applications as well as dedicated kits are being developed and tested. In parallel, the system has been made available to the scientific and industry communities as a commercial product called MultiPROBE® II HT EX with integrated robotic centrifuge. The device was launched on the European market in October 2003 at

the Biotechnica trade fair in Hannover and can be purchased from PerkinElmer.

"The 'virtual company' approach combines basic research interests of institutions with the business interests of companies. It grants participating scientists a maximum of freedom and feeds participating companies with excellent know-how without limiting their flexibility," summarizes EMBLEM's Martin Raditsch. Vladimir concludes, "We already have more ideas, which we would like to bring to reality within a similar set-up."

– Jürgen Zimmermann & Martin Raditsch



DNA-Spinner. Many processes include centrifugation as an essential step, which can't be circumvented. Variable viscosities in animal and tissue, forensic and clinical samples are the nightmare of every automation project. Integrated centrifugation systems are robust and ensure reproducible results, even in complex samples.

The field of application of this technology is wide and includes, for example, simple precipitations, drying of samples, SPE, and chemical synthesis.

DNA-Spinner addresses these applications by combining automated centrifugation, liquid handling and incubation capabilities in a compact instrument. The system, based on PE's MPIL technology and Hettich's automated Rotanta® centrifuge, can handle up to 16 microtitre plates simultaneously in 4 baskets, RCFs up to 6000g can be reached in a temperature-controlled centrifuge environment. Computer-controlled shakers and incubators as well as supply stackers may complement the infrastructure, depending on the application and throughput needs. DNA-Spinner combines not only the hardware and software components but starts already with a set of verified applications, based on MN's well established Nucleospin® technology. DNA-Spinner-tuned kits for the extraction of genomic DNA from animal and plant tissues are available. Currently 192 samples can be purified in just under 2 hours, yielding up to 20µg of genomic DNA, A260/A280~1.8, CV~5%. For more, see (www.spinapp.embl.de).

EMBL PhD students organize 4th annual symposium: Recognizing the difference

The 4th annual EMBL PhD symposium took place at the main Laboratory in Heidelberg on November 20-22. Following the tradition of previous events, this year's topic, "A Life of Encounters: Recognition in Biology" brought together experts from numerous disciplines, ranging from molecular recognition mechanisms, cell-cell recognition and immunology, to organismic recognition and behaviour. "The diverse mix of topics was rather unusual," says conference organizer Karsten Beckmann, "which helped us to attract a really interdisciplinary crowd of PhD students from across the world."

The speakers were enthusiastic about the highly interactive audience. "I've never had that many questions!" remarked Venki Ramakrishnan at the end of his lecture. Poster sessions allowed participants to present their own work and provided another good opportunity for interactions between speakers and participants.

As in previous events, the symposium was entirely organized by PhD students, from inviting the speakers, to arranging the sessions and finding financial support. "We are grateful to the numerous companies that supported us, as well as to EMBO, which sponsored two of the speakers," says predoctoral fellow Christiane Jost.

"We received a lot of positive feedback, both from the speakers and the participants and we would like to encourage all EMBL pre-docs to participate in next year's symposium.

It's a truly unforgettable experience!" the organizers conclude. The post-conference party provided an occasion to celebrate a job well done.

This year's organizers were: Karsten Beckmann, Maria Ermolaeva, Fabian Philipp, Andrés Gaytan de Ayala Alonso, Caroline Iquel, Martin Jinek, Christiane Jost, Stephan Meister, Felipe Mora-Bermúdez, Marlene Rau, Thomas Sandmann, Hannes Simader, and Mikko Taipale. For more on the symposium, see <http://symposium.predocs.org>



Panelists at the 4th EMBL PhD Symposium field questions about the evolution of recognition mechanisms.

The house that Nadia built: Monterotondo mice have a new home

The Adriano Buzzati Traverso campus in Monterotondo was abuzz with activity in early November as the local building maintenance crew put the final touches on the new extension to the campus' mouse facilities. Meanwhile, EMBL research programme staff were scurrying about organizing a "mouse warming party" to celebrate.

On hand for the celebrations were CNR Director and EMBL Council member Glauco Tocchini Valentini, Professor Arturo Falaschi from the Italian Ministry of Foreign Affairs, and architect Emilio Mattocchia; from the EMBL side, Monterotondo Coordinator Nadia Rosenthal, EMBL Director General Fotis C. Kafatos, and EMBL senior scientists. They were joined by an enthusiastic crowd of staff and their families from EMBL and campus partners, EMMA and CNR. Festivities included speeches, a tour of the new facilities, dinner, dancing, and a spectacular fireworks display organized and executed in the rain by Alex Regan.

The new facility consists of a 450m² extension onto the existing buildings, complete with an SPF facility, procedure rooms, behaviour suites, expanded space for the

transgenic service, and capacity for approximately 6,500 cages. "We decided to use a pre-fabricated structure that we believe could serve as a model for other institutes looking to build an animal facility," says Nadia. "It is expandable if need be, but more importantly, it is cost effective, allowing us to allocate funds to features we considered important for us." These include an automated ventilation system, which will rapidly and silently exchange the air in the facility, removing the stress of extraneous noise and odors on the animals. In addition, the facility has been equipped with IVC racks, the system of choice of major commercial animal facilities, such as Jackson Laboratory and Harlan, and considered to be the best caging system for preventing and stopping the spread of contamination.

"It is the first time that all the mice will be housed in the same location, which means that we will be better able to control how the facility operates," says Group Leader Manolis Pasparakis. "The layout and features of the new facility will allow EMBL staff and caretakers to work more efficiently," adds Group Leader Walter Witke.

The EMBL mouse facilities mark a new beginning for research within the Mouse Biology Programme. "One of the main objectives of this programme is to generate mouse models of human disease, and this goal dictated the planning of the facility," says Nadia. For example, included is an independent building which, along with a behaviour suite, will be reserved for the housing and testing of mice obtained from external sources, allowing for preliminary results to be attained and examined before undertaking the time-consuming process of rederivation. "This prescreening will help to increase research output."

– Carla Sciarretta and Sarah Sherwood



Nadia Rosenthal inspects cages during a tour of EMBL-Monterotondo's new mouse facilities



Biology teachers meet in Hamburg

58 high school teachers of chemistry and biology (37 from Hamburg and the vicinity and 21 from further away) convened from August 21-23, 2003 at the EMBL Hamburg Outstation to attend the 3rd workshop of the EU-funded project "Continuing Education for European Biology Teachers." The theme was "Structural Biology – insights into the molecules of life." The teachers listened to five scientific lectures as well as a session on bioethics. They participated in two practical experiments designed to be taken back into the classroom, and viewed an exhibition with stands hosted by other science education initiatives and commercial sponsors. In between there was ample time for discussions and for getting to know each other. For more, see www.embl-hamburg.de/workshops/2003/twp.

– Manfred Weiss

UniProt consortium launches a universal protein resource

On 15 December the EBI, together with its collaborators the Swiss Institute of Bioinformatics (SIB) and Georgetown University Medical Center's Protein Information Resource (PIR), will announce the launch of UniProt – a new universal protein resource that will be the world's most comprehensive catalogue of information about proteins. UniProt will provide a "one-stop shop," allowing easy access to all publicly-available information on proteins.

"The launch of UniProt is tremendously exciting because databases that have been running independently for years have come together for the benefit of their users," explains Maria-Jesus Martin, Sequence Database Group coordinator at the EBI. This unification was made possible by funding from the US National Institutes of Health, totaling US\$15 million over 3 years.

Rolf Apweiler, UniProt's Principal Investigator, describes UniProt's structure as resembling that of a wedding cake, each tier representing a different database optimized for different uses.

At the base of the cake lies the UniProt Archive (UniParc), which provides access to every protein sequence in the public domain and allows users to track the history of a sequence as it's updated.

The centerpiece of the UniProt Consortium's activities is the UniProt Knowledgebase, unified from Swiss-Prot, TrEMBL and PIR-

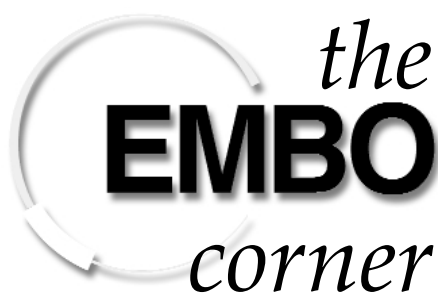
PSD. The UniProt Knowledgebase consists of two parts, one containing fully manually-annotated records and another with computationally-analysed records awaiting full manual annotation. The two sections will continue to be referred to as Swiss-Prot and TrEMBL, respectively.

The top tier of the cake contains three sub-layers, collectively known as UniRef (for UniProt non-redundant reference). These combine closely-related sequences (at 100%, 90% or 50% identity) into single records to facilitate faster searching.

"With UniProt we can address some aspects of the challenges that life scientists are currently facing," says Amos Bairoch, the founder of Swiss-Prot. "There has been a tremendous growth in the quantity of biomolecular information that has become available in the past ten years, yet this is only the beginning!" He adds, "Thanks to UniProt we can continue to provide a wealth of knowledge on the fascinating universe of proteins." Cathy Wu, Director of PIR, continues: "Such integrated knowledge in UniProt will facilitate scientific discovery at various levels of biological organization, from genes and proteins through metabolic pathways and cellular networks to whole organisms."

UniProt can be accessed at www.uniprot.org with mirror sites at each Institute. The EBI's site is www.ebi.uniprot.org.

– Cath Brooksbank and Claire O'Donovan



the EMBO corner

The EMBC meeting

When EMBO was founded 40 years ago, one of its first tasks was to ensure that it had resources to allow it to deliver a programme of Fellowships, Courses and Workshops. Following initial support from the Volkswagen Foundation, the founders of EMBO were successful in convincing governments that they should finance the EMBO programme. Arising from this, the European Molecular Biology Conference (EMBC) was started almost 35 years ago. As an intergovernmental organization, the EMBC in turn became a respondent to a request from EMBO that a laboratory should

also be established and hence EMBL came into existence as a separate entity.

The EMBC meets twice annually to consider the EMBO programme and indeed to define its own ambitions. Of significance recently was the decision to prolong the EMBC agreement for a further nine years from 2004 to 2013. Accompanying this was a document that was prepared and discussed at length, outlining the actions that were appropriate for the EMBC of today. This document, "The future directions for EMBO/EMBC: Building on a record of achievement," was accepted unanimously by the EMBC last year and is available on the website: www.embo.org/embc/public_documents.html. In many ways this document is similar to the five-year plan for the EMBL or perhaps the Strategic Forward Look of the EMBL which has recently been finalised.

The EMBC met recently and took a number of important decisions. For example, it accepted Estonia as a new Member State. When Estonia and Luxembourg ratify this agreement, this will bring the number of Member States in the EMBC to 26. It also elected Marja Makarow from Finland as its new President. It is very appropriate that an excellent female scientist was thus honoured.

A severe disappointment however was the fact that the budget for the EMBC for 2004-2006 was not agreed upon. Such decisions require unanimity and the fact that the EMBO activities need an increase in funding created difficulties for some Member States. The additional funding is essential, in particular but not exclusively, because of the fact that there has been a 27% increase in the number of applicants for the Longterm Fellowship Programme. With the current level of funding only 10%-15% of the applicants could be successful; if (as the current trend suggests) the number of these increases then the success rate will fall to even lower levels. We are hopeful that the emergency meeting of the EMBC which will take place on the 23rd of January will resolve this problem.

In the interim, we are making a major effort to encourage the governments of the countries that were reluctant to provide the increase have a change of heart and hope that the scientists throughout the EMBL community add their support wherever possible.

– Frank Gannon
Executive Director, EMBO

EMBL researchers prove successful with EU grants

The EU's 6th Framework Programme with its Structuring and Strengthening Issue to help realize the European Research Area (ERA) gives rise to a revolution in the way that science has to be tackled in Europe. The fragmentation of research has to be overcome. Europe has to fight against brain drain, to increase its attractiveness to researchers, and to offer the best resources and infrastructures in order to increase its competitiveness.

New instruments, such as Integrated Projects (IP) and Network of Excellence (NoE), are among the key features created to

mobilize a critical mass of expertise in order to achieve the ambitious objectives, which set a new orientation for scientists working at research sites across Europe.

An EU grant application has to be written properly in order to be successful. Many EMBL scientists rose to the challenge and submitted proposals under the first call, which closed in Spring. The results are in: 27 proposals made it through. They are listed below.

Congratulations to the successful applicants and good luck for future calls.

– Genevieve Reinke

A new website for EMBL

A long overdue task concerning the rejuvenation of the EMBL's web site was started this year. Have a look at www.embl.org starting in late January; you'll notice some major changes. The aim is to deliver a more integrated EMBL-wide website, serving all five sites, the wider scientific community and the general public. During 2003, a user group was established in close collaboration with staff from all Units to evaluate the future structure and functionalities.

The changes will involve both the structure and the design of this site. The new homepage will consist of two major sections: a) four core links to key areas: *About Us*, *Research*, *Services* and *Education* and b) links to the five EMBL sites.

The embl.org site will provide visitors with a comprehensive overview of EMBL's areas of activity, with information presented using a consistent site-wide structure. The look and feel of the website will therefore be homogeneous throughout, with slight design adaptations to distinguish individual sections.

The embl.org site is scheduled for release in January 2004, followed by application of the model to the EMBL Outstations. The site will expand throughout 2004, to create a new and improved gateway to work and life at EMBL.

– Christian Boulin

Integrated projects: Luis Serrano (Apopis), Luis Serrano and Philippe Bastiaens (Interactive Proteome), Peer Bork (Eumitocombat), Victor Lamzin* and other EMBL scientists (BIOXHIT), Claus Nerlov and Liliana Minichiello (Eurostemcell), Carsten Schultz (Integrated technologies for *in vivo* molecular imaging), Nicolas Le Novère (E-MEP), Jan Ellenberg (MitoCheck)

Networks of Excellence: Fotis Kafatos (BioMalPar), Janet Thornton* and other EMBL scientists (Biosapiens), Pernille Rørth (Main), Asifa Akhtar (Epigenome), Peter Stoehr (SemanticMining), Rolf Apweiler (TRANSFOG), Assunta Susanna Sansone (NUGO)

Specific Targeted Projects: Frank Gannon (Anabanos), Luis Serrano* and other EMBL scientists (COMBIO), Luis Serrano and Peer Bork (GENEFUN), Michael Sattler (FSG-V-RNA), Nadia Rosenthal (SC & CR), Peer Bork and Alphonse Thanaraj (ATD), Ewan Birney (EMI-CD)

Integrated Infrastructure Initiatives: Dean Myles (NM13), Matthias Wilmanns (IA-SFS)

Marie Curie Intra-European Fellowships: Mike Osta (*A. Gambiae* C-Lecitins), Sebastian Ulbert (RNA-identity), Geert Van Loo (EMBL-GVL)

* indicates project coordinator

There must be something in the water at EMBL...

Over the past year, the number of babies born to parents working at EMBL has doubled. Thus far, Laboratory staff have been unable to pinpoint a scientific explanation. No traces of aphrodisiacs have been found in the canteen lunches, nor has anyone determined an obvious correlation between the baby boom and estrogen leakage from Frank Gannon's lab. Some attribute the surge in birth rates to Intermedex's recent termination of birth control coverage. Still others speculate that the spontaneous increase is linked to a series of blackouts at the Monterotondo facility. Surely scientists cannot be getting more action than the rest of the population. So why are there so many babies at EMBL?

EMBL is a young place. The large number of visitors, predocs, and postdocs and the institution's nine-year turnover policy ensure a constant influx of fresh faces. Most employees are in their twenties and thirties, the age bracket that normally coincides with childbearing years. With so many transient spirits flitting about and engaged in intellectual intercourse, it is no surprise that things should turn frisky.

Let's take the Heidelberg main Laboratory as an example. EMBL's safe and international atmosphere is family-friendly. Pinioned between two sheltering forest-bedecked banks of the Neckar River, Heidelberg seems like the idyllic setting of a fairy tale – or at least a family tale. It offers the merits of a beautiful castle and renowned university. The public school system is acclaimed in the region. Children continue to play freely on the streets and in the woods, a rare phenomenon in this unnatural world.

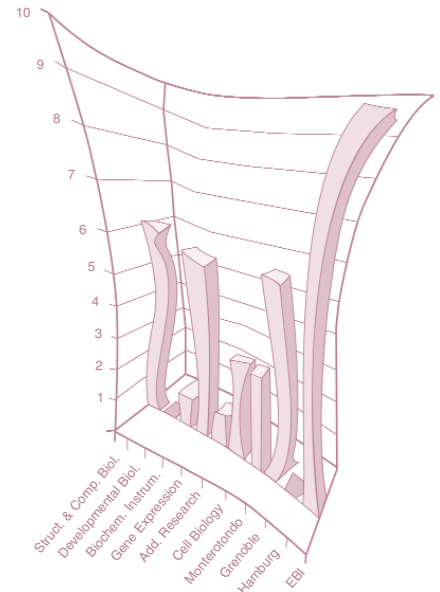
While Heidelberg and its surrounding villages provide a secure environment, EMBL children are far from sheltered. For those individuals intent on rearing their children in a multicultural setting, Heidelberg is ideal. The university town caters to multinational residents, into which category fall many of EMBL's staff. The city resounds in a flood of multilingual dialogue. In partnership with the after-school daycare of the Internationale Gesamtschule

Heidelberg (IGH), the lab fosters this multicultural discourse within EMBL children.

Back on campus, the Kinderhaus is integral to the social infrastructure at EMBL. The childcare service helps in the well-known syndrome when inflated hours at the lab chase young mothers from careers in science. The German childcare system, for example, seriously disrupts a mother's ability to function successfully at home and at work. The short hours and age limitations of local nurseries preserve a conservative family structure.

Former EMBL group leader Thomas Graf pioneered efforts to establish a childcare service in the late 1980s: "In a day and age where scientists often marry other scientists, I was convinced that it would help couples in research to combine their careers and their families. Childcare services would make it easier for women to develop an independent career, since in the end they would carry most of the family burden." The EMBL Kinderhaus provides full-time childcare and accepts infants as young as three months of age. The kids are only a hop, skip and a jump away – an advantage that provides comfort to young parents and enables mothers to continue nursing.

The Kinderhaus and EMBL child support payments promise security to parents. The customized salary adjustments for families alleviate many of the financial burdens of a



Number of babies born to EMBL parents across the different Units in 2003.

new baby. In addition, the guarantee of medical coverage and paid maternity leave relieve apprehensive couples. All of these perks seem to be motivating would-be parents to rise to the occasion.

And so, EMBL staff can focus on the pursuit of both their biological research and their biological urges.

– Selene States

Have a look at the new "info-pack for parents-to-be" available on the personnel section's website: www.embl.de/LocallInfo/personnel/

Apart from the obvious, why do you think there are so many babies at EMBL?



Rosanna Maccagnano
EMBL Monterotondo

First we thought it was the water, then we suspected some experiment had gone awry. Monterotondo seemed barren until a chain reaction started last year. We've had five births in 2003 and another one is on the way.



Fotis C. Kafatos
EMBL Director-General

I don't know. I had absolutely nothing to do with it! Wasn't me.



Kent Duncan
EMBL Heidelberg

Ack! I don't know... but... uh... I have to go stop my gel. I'll get back to you on that.



Manuela Brunner
EMBL Heidelberg

Because EMBL is a happy environment!



Michael Thompson
EMBL Heidelberg

I'm not sure, but there is a predoc in Structures who the girls really seem to fancy. He might have something to do with it...

New website helps find the sense in nonsensical gene names

What connects the mustard weed *Arabidopsis thaliana* to SUPERMAN, CLARK KENT and KRYPTONITE? What is a *cheap date* like in fruit flies? What might be the four-letter abbreviation for *fuculokinase K* gene in *Escherichia coli*? As every geneticist knows, the answers are all in the gene name.

Ever since Thomas Hunt Morgan found the *white* gene in *Drosophila*, researchers have given new genes short but informative names that try to describe the function of the gene or the mutant phenotype. For example, *white* flies have white eyes, and *hairless* mice are bald. But what happened to this good old common sense with gene names such as ANTIKEVORKIAN and *mothers against decapentaplegic*? Names range from the witty, peculiar, amusing, imaginative, and funny to the far-

etched, silly, misleading, tasteless, or simply unintelligible. Or in some cases, a gene is known by fifteen different names, with each laboratory holding on stubbornly to its own preference.

A new resource will now help guide the befuddled visitor through a forest of curious gene names. EMBL PhD student Mikko Taipale and Mikael Niku from the University of Helsinki have collected the good, the bad, and the ugly of gene names, together with the stories behind them. The site also includes links to other webpages containing interesting tidbits of information. The website is comprehensible to non-scientists and hardcore *Drosophila* geneticists alike. Check it out at

<http://tinman.vetmed.helsinki.fi>

EMBL alumni: looking for great PhD students?

Each year EMBL's International PhD Programme receives hundreds of applications from students around the world. Candidates who make it through a first selection round are invited to the Lab for interviews. They are a gifted and motivated bunch – but unfortunately not all of them can make it into EMBL's Programme. What to do with the surplus of outstanding candidates? Many of them may well be interested in doing their predoctoral studies in the laboratories of EMBL alumni. And here is where the EMBL Alumni Association can help.

If you are an EMBL alumnus/a and are interested in great predoc candidates not selected to take part in EMBL's programme, fill out the form available at www.embl.de/alumni/aadownloads/aaphd03.pdf and return it to the EMBL International PhD Programme office by the end of February 2004. Completed forms will be distributed to interested PhD candidates, who can then get in touch with alumni group leaders directly. For more information, contact Sarah Sherwood at alumni@embl.de.

The doctor is in... Occupational health service at EMBL

Maria Faden, a physician from the *Institut für Arbeits- und Sozialmedizin* of the University of Heidelberg, is available for consultation at EMBL Heidelberg every other Friday from 10 to 11 am. This service is part of EMBL's occupational health coverage that has been provided by the institute since 2000.

If you have questions related to health in the workplace, stop by and see Dr. Faden in the First Aid room (305) opposite switchboard (schedule available from Corinna Gorny in the Safety Office) or send her an email (maria.faden@med.uni-heidelberg.de). Please note that she cannot provide a service as your personal doctor.

FAQs from the personnel section

Changes in procedure

What happens when my personal circumstances change?

EMBL pays allowances and provides health insurance cover for your dependents. Your entitlements to these are affected by changes in family circumstances. Please tell us if you marry or have a baby. We also need to know if your child continues in full-time education after the age of 18.

What must I do to take a leave of absence?

You need to obtain approval for holiday or special leave from your supervisor in advance. Complete the leave request and send it to us with the signature of the supervisor before you go. Please return your old

leave card for 2003. We will update our records and the remaining leave entitlement will be shown on your next salary statement.

How do I claim reimbursement of travel related expenses?

Council changed the rules for payment of subsistence allowances with effect from July 2003. The daily rate depends on the length of absence and whether you receive lunch or dinner without extra cost to yourself. Please remember to submit your claim within three months. It helps us to process the payment more quickly if you complete all the parts of the form.

Further guidance and forms for these and other procedures are now available at www.embl.de/LocalInfo/personnel/

For questions about this or any other topic, email [Annabel](mailto:Annabel@goulding@embl.de) at goulding@embl.de

news & events

Group Leader seminars now on Wednesdays. Same place (the Operon auditorium), same time (1 pm), just a different day. EMBL's weekly series of group leader seminars (the pink ones) will now be held mid-week. Check out "Today at EMBL" on the Laboratory's web pages for the schedule.

The first ever Kinderhaus Christmas Bazaar will take place on Wednesday, December 17, from 3-6 pm in the Operon Foyer. In the past the Kinderhaus staff have invited parents up for an afternoon of coffee and cakes and Christmas carol singing, but this year they've decided to venture into something new. EMBL kids – together with some help from their teachers and parents – will be making Christmas decorations, which will be available for purchase. Talented parents will also bring in some of their handiwork. EMBL staff are invited to stop by, and have a Glühwein and join in on the Christmas spirit.

And the winner is... The EMBO Award for Communication in the Life Sciences 2003 goes to Hungarian scientist Peter Csermely. The Award recognizes this scientist for his outstanding initiative to network high school students and researchers in Hungary and other Eastern European countries. The prize, consisting of €5,000 and a handcrafted silver and gold medal, was awarded on November 14 during the EMBO/EMBL joint conference on Science and Society, "Genetics, determinism and human freedom" in Heidelberg (see page 6). Csermely is Professor for Biochemistry at the Semmelweis University in Budapest, Hungary. www.embo.org/press/silver_medal2003.html

Dear Editor,

I couldn't help but notice that some information published in the October issue of *EMBL & cetera* was misleading. With regard to the broken tooth issue (point 5 in the top 10 things newcomers should know), the 2 year waiting list doesn't apply to dental prosthesis – it applies only to dental treatment. Even then a minimum of 80% is paid up to a maximum of EUR 1,200- over 24 months + 2 checkups per annum at 100% reimbursement! However, there is a 6 month waiting list for dental prosthesis (crowns, bridges etc.), thereafter 80% is covered up to a maximum of EUR 5,000- over 24 months.

Kind regards,
Don McPhee from Intermedexth

people @ EMBL



Silke Schumacher is the new EMBL Cooperation Manager. She will facilitate and manage external and internal collaborations, such as partnerships with other European institutes like the Partnership for Structural Biology (PSB) in Grenoble and the Partnership in Marine Molecular Biology with the Sars International Centre in Bergen. She'll also work on new partnerships. She will take an active role in EMBL's participation in the EIROforum, and will also work closely with scientists and senior management to help develop the new EMBL Centres (see the story on page 2 for more). Silke joins the lab after having spent almost three years as the Managing Director of Anadys Pharmaceuticals Europe GmbH, Heidelberg.



Nicolas Le Novère is a new Group Leader at EMBL-EBI. Nicolas obtained his PhD in 1998 in the team of Jean-Pierre Changeux at the Pasteur Institute, where he studied the nicotinic receptors of the brain. During this schizophrenic period, one cerebral hemisphere controlled the hand with the pipette, while the other struggled with the hand on the keyboard. As a treatment, Nicolas spent a full computational postdoc in the team of Dennis Bray at the University of Cambridge, where he was introduced to the marvels of Computational Systems Biology applied to bacterial chemo-

taxis. After two years of relapse in his former split personality, as a research fellow of the french CNRS, he will try again to gather himself as one, developing Computational Systems Biology of the Neuron.

Faculty appointments: Matthew Groves is a new Staff Scientist at the Hamburg Outstation.

If you need help with flow cytometry, never fear, Andy's here! **Andy Riddell** joined EMBL's Scientific Core Facilities group in October to carry on the flow cytometry legacy of Ann Atzberger and Robert Ventzki to provide instruments and services to help EMBL researchers analyze and sort cells labeled with a variety of fluorescent dyes, and to sort live *Drosophila* embryos. Andy joins the lab after four years at the Cambridge Institute for Medical Research and the Hutchison/MRC Research Center in the UK. For more information on cytometry techniques and assays, e-mail Andy at riddell@embl.de.

Martina Muckenthaler, a staff scientist in Matthias Hentze's group, will leave EMBL in January 2004 to take up a professorship at the University of Heidelberg. Luckily she won't disappear – she'll be part of the EMBL/Heidelberg University Molecular Medicine Partnership Unit and will continue to work closely with EMBL researchers.

awards, honours & cetera

Luis Serrano, coordinator of EMBL's Structural and Computational Biology Programme has been awarded a European Union's Marie Curie Excellence award. The €50,000 prize is one of five awarded to top researchers who, with the aid of EU Marie Curie fellowships and grants, achieve significant research breakthroughs. The award was presented by European Research commissioner Philippe Busquin as part of the Marie Curie Week (3-15 November). The MC Excellence Awards are one of the novelties of the €20 billion 6th EU Research Framework Program and aim to boost the career of world-class researchers by contributing to their international recognition. Luis' research project focuses on "Design of Biological systems to improve quality of life." For more information, see

http://europa.eu.int/comm/research/fp6/mariecurie-actions/news/headline20_en.html

The EBI's **Rolf Apweiler** has been voted "Database doyen" in Genome Technology's 2003 All Stars Awards. An All Stars academy of 101 leaders in the field of genomics was responsible for the selection.

Who's new?

Hatice Akarsu (Mattaj), Angela Burro (LAR), Sandra Claude-Münster (Steinmetz), Bernard De Bono (Birney), Marco Donizelli (Rebholz-Schuhmann), Klaus Greger (Stelzer), Filip Glavan (Conti), Claudia Jenewein (Kinderhaus), Christina Kiel (Serrano), Nicola Kerrison (Thornton), Jyoti Khadake (Apweiler), Christian Klasen (Transgenic Service), Cleopatra Kozłowski (Nédélec), Melanie Kunath (Kinderhaus), Georg Kustatscheri (Ladurner), Enrique Lara (Rosenthal), Celine Maeder (Knop), Silvia Marteles Moreno (Course & Conference Office), Lukas Neidhart (Ephrussi), Cecile Otten (Nédélec), Papadaki Piyi (Ephrussi), Andrea Quintero (Cohen), Mehrnoosh Rayner (DG's Office), Andrew Riddell (Core Facilities), Ekaterina Semenova (Rosenthal), Anja Seybert (Geerlof), Silke Schumacher (DG Office), Laila Staali (Griffiths), Selene States (OIPA), James Torrance (Thornton), Yevhen Vainshtein (Hentze), Jishy Varghese (Cohen), Amy Vernimont (Membrane Fusion Group, Grenoble), Andrea Washington (Course & Conference Office)

events @ EMBL

16 December 2003

EMBL Heidelberg, room 215
Science and Society Reading Club:
"Zen and the art of scooping"

17 December 2003

EMBL Heidelberg, Operon Foyer
Kinderhaus Christmas Bazaar

13-15 February 2004

EBI Hinxton
What's all the fuss about genomes?
A practical workshop for biology teachers

For more events, see

www.embl.de/ExternalInfo/todayAtEmbl

the EMBL & cetera
team wish
you and yours
a safe and
happy holiday!