

**message from
EMBO Executive Director**

Strengthening the scientific voice



Recently EMBO has been involved in discussions with European scientific organisations outside the realm of the biosciences. During the course of these meetings, one thing has become crystal clear – EMBO is a unique organisation. There is no equivalent in areas like chemistry, physics or mathematics. Many European federations and societies have impressively large numbers of members, but EMBO, with its elected membership and a dedicated team of managers to deliver on its programmes, stands out as a special case.

This gives EMBO a unique influence in Europe. This impact is becoming increasingly visible in our capacity to react to new developments on behalf of the broad community of molecular biologists. The European Research Council (ERC) is a case in point. EMBO's status and engagement in this debate has allowed us to help define what the ERC should be and show decision-makers that scientists have reached a consensus on what is required in European science policy.

Recently EMBO's involvement enabled us to introduce the names of ten scientists into the selection process for a future ERC senate. The task of selecting names fell to the EMBO Council as elected representatives of EMBO members. The aim was to identify life scientists of such a high quality and stature that the scientific community would feel well served if they were later appointed to the senate.

Unusually for EMBO, the list of names was not diverse in terms of scientific area, geogra-

phy or gender. This was the outcome of a straight voting procedure carried out at distance. The need for prompt action in this matter left no time to organise a special meeting of Council. To focus on this, however, would miss the real purpose of this exercise. The final list is a message – the content less binding. The clear message is that the EMBO membership actively monitors ERC activities and expects truly outstanding scientists to be involved in its governance.

Soon after, I asked EMBO members to nominate further representatives for the life sciences sub-disciplines of the future ERC senate. Members' suggestions will be passed on to the group charged with establishing the ERC senate in the hope that this decisive input will bring top class scientists to the table of the final senate.

EMBO's capacity to impact decision-making in Europe also extends beyond the ERC. I recently informed members about an ongoing EU process concerned with prioritising infrastructure investment. The established system appeared to me to have the potential to bypass valuable input from scientists, who are, of course, ultimately best placed to define infrastructure needs. The EMBO membership's responses to the prioritisation group will hopefully contribute to a better outcome in this case as well.

These types of joint actions are a decisive step in the right direction. It is increasingly clear that the only way scientists can influence decision-making is by providing constructive input early on, rather than reacting after the

highlights in this issue

■ **Launch of EMBO/HHMI Startup Grants**

■ **EMBO Conference Series – Apply for funding**

■ **Interview with Molecular Systems Biology Senior Editor**

■ **Winner of EMBO Award for Communication in the Life Sciences**

■ **2005 EMBO Members Workshop in Warsaw**

■ **EMBO experiences – Reports from the EMBO community**

fact and complaining about the outcome. As you will have gathered from the recent communications mentioned above, we are working hard to provide a conduit for your input into these discussions. This does not, of course, pre-empt or bypass any input you would like to make nationally.

By providing a focal point for members' input, EMBO hopes to bring more strength to the scientific voice and this can only be good for the future of European research. It also increasingly points to the very special role that EMBO can play in promoting molecular biology throughout Europe.

Frank Gannon ■

EMBO proposals for possible members of the ERC senate

■ **Pierre Chambon**

■ **Walter Gehring**

■ **Peter Gruss**

■ **Carl-Hendrik Heldin**

■ **Tim Hunt**

■ **Carlos Martinez-A.**

■ **Kim Nasmyth**

■ **Paul Nurse**

■ **Christiane Nüsslein-Volhard**

■ **Kai Simons**

March 24 – April 2, Sfax, Tunisia
 Practical Course:
 Bioinformatics and genome data analysis

April 4–9, Hinxton, UK
 Practical course:
 Analysis and informatics of
 microarray data

April 11–16, Siena, I
 Workshop:
 Structural basis of papovavirus biology

April 15–16, Leimen, D
 EMBO Young Investigators
 Lab Management Course 1, Part II

April 21–24, Rome, I
 Workshop:
 Notch signaling in development and
 cancer

April 22–23, Leimen, D
 EMBO Young Investigators
 Lab Management Course 2, Part II

May 13–14, Heidelberg, D
 4th International Teachers Workshop:
 Spotlight on teachers

May 19–22, Heidelberg, D
 Conference:
 Chromatin and epigenetics

May 22–26, Kfar Blum, Upper Galilee, IL
 Workshop:
 RNA control of neuronal function

May 23–25, Madrid, E
 Workshop:
 Plant stem cells: independent inventions
 and conserved mechanisms

May 26–29, Candiolo (Tornio), I
 Workshop:
 Invasive growth: a genetic program for
 stem cells, cancer, and cancer stem cells

May 28–June 2, Heidelberg, D
 Workshop:
 Quantification of gene expression by
 real-time qRT-PCR

May 28–June 2, Zakopane, PL
 Workshop:
 Biology of molecular chaperones.
 Heat shock proteins in molecular
 medicine: Misfolding diseases and
 cancer

May 31 – June 6, Erice (Sicily), I
 Lecture course:
 Channels and transporters

June 9–17, Oeiras, P
 Practical course:
 Light microscopy in living cells

June 13–19, Heidelberg, D
 Practical course:
 Microinjection and detection of
 probes in cells

June 14–19, Grenoble, F
 Practical Course:
 Exploiting anomalous scattering
 in macromolecular structure
 determination

June 14–19, Hamburg, D
 Practical course:
 BioXAS on metalloproteins and
 organism tissue

June 16–23, Uppsala, S
 Practical course:
 Advanced techniques in
 molecular medicine

June 17–21, Heidelberg, D
 EMBO Fellows Meeting

June 18, Heidelberg, D
 EMBO Media Workshop

June 20–25, Heidelberg, D
 Practical course:
 Microarray technology:
 from production to systems biology

June 20–July 1, Cargèse (Corsica), F
 Lecture course:
 Cellular and molecular biology of
 membranes

June 21–30, Ceske Budejovice, CZ
 Practical course:
 Electron microscopy and stereology
 in cell biology

June 22–24, Heidelberg, D
 4th EMBO Young Investigator Meeting

June 24–26, Heidelberg, D
 3rd EMBO Young Investigator Programme
 Symposium: Quantitative Biology

Scientific multiplier

The EMBO Conference Series

EMBO has been funding conferences as part of its Courses and Workshops Programme for many years. These conferences have the specific goal of strengthening European scientific communities and building international networks. A recently launched initiative, the EMBO Conference Series, takes this aim three steps further by offering funding for not one, but three biennial European conferences.

The EMBO Conference Series will give greater focus and continuity to topics of particular importance to the scientific community worldwide. By providing a solid and more permanent foundation for the development of these topics, EMBO aims to raise the profile of individual communities within Europe and pave the way for greater collaboration with parallel communities in other parts of the world.

To maximise potential for international collaboration, the conferences will be scheduled on alternate years from similar meetings in the US. The intention is to provide a high quality European counterpart to meetings such as the Gordon Research Conferences or Cold Spring Harbor Meetings and encourage scientific interactions that might not normally have been initiated.

EMBO is now inviting applications from organisers of large European meetings that would benefit from a conference series approach.

**Bi-annual deadline for applications:
 February 1, August 1**

[www.embo.org/projects/
 courses_workshops/index.html](http://www.embo.org/projects/courses_workshops/index.html)

**Publishing by
 scientists for
 scientists**

**New members of
 the Advisory
 Editorial Boards**
 The EMBO Journal
 and EMBO reports

For full details and links to individual events see: www.embo.org/projects/courses_workshops

Promoting brain gain in Central Europe

EMBO/HHMI Startup Grants for young independent scientists

EMBO has joined forces with the Howard Hughes Medical Institute (HHMI) to attract some of the world's most promising young scientists to Central Europe. Launched in January 2005, the EMBO/HHMI Startup Grants will help young researchers set up their first independent laboratories in a Central European EMBO member state – Croatia, the Czech Republic, Estonia, Hungary, Poland, or Slovenia.

HHMI will contribute \$50,000 a year for three years for up to six grants. Another \$25,000 a year per grant will come from the participating member states and EMBO. EMBO will oversee the grants as part of its Young Investigator Programme, which has been identifying and supporting exceptional young scientists in Europe since 2000.

In addition to financial support, a key element of the EMBO/HHMI Startup Grants is a guarantee of continuing career opportunities beyond the duration of the grant. Applicant institutions are being asked to make a commitment to ongoing support of the scientists who receive the awards.

Frank Gannon said, "By offering young independent scientists the resources they need to get started and the assurance of local support in the long term, EMBO and HHMI hope to strengthen science in Central Europe. EMBO's involvement in this initiative represents our continued commitment to supporting countries that wish to develop and enhance their science bases."

The new initiative builds on EMBO/HHMI grants awarded between 2002 and 2004 to support scientists in the Czech Republic, Hungary and Poland early in their independent careers. That programme was designed to strengthen the scientific pipeline in EMBO member states where HHMI funds international research scholars.

Eligible scientists should apply for the EMBO/HHMI Startup Grants jointly with research institutes in the countries where they intend to establish labs.

Application deadline: August 1, 2005

www.embo.org/projects/yip/embo_hhmi_startup_grants.html

Spotlight on teachers

International EMBO workshop for science teachers

On May 13–14, 2005 it will be biology teachers, not scientists, who take to the floor to present practical experiments they have designed for use in the classroom.

Around 100 secondary school teachers from countries throughout Europe will meet in Heidelberg to share experimental techniques and teaching materials with their colleagues. Scientists will also be on hand to discuss and demonstrate new ideas and help the teachers develop their course material further.

This is an excellent opportunity for scientists to communicate with some of the most motivated science educators in Europe. Members of the EMBO community are invited to attend and bring their expertise to the event. Interested scientists should e-mail

scisoc@embo.org

www.embo.org/projects/scisoc/teachers05.html

Publishing by scientists for scientists

Changes to editorial structure of EMBO publications

A lot has been happening lately in the world of EMBO publications. The organisation's first open-access, electronic publication, *Molecular Systems Biology*, launches this month with Nature Publishing Group (NPG). The EMBO Journal is in the process of switching to an electronic tracking system to accelerate manuscript handling. And additions to the editorial structure of The EMBO Journal and EMBO reports will maintain both journals' high standards of content evaluation through continued close contact with the EMBO community.

The most major change to the editorial structure of The EMBO Journal came with the

departure in January 2005 of Executive Editor, *Iain Mattaj*, after fifteen years of outstanding input to the journal's development. Iain's replacement is *Pernille Rørth*, a senior scientist at EMBL and EMBO member, with a breadth of scientific knowledge that fits perfectly with the scope of The EMBO Journal today.

The EMBO Journal gains additional editorial direction in a new layer of senior editors. EMBO members, *David Baulcombe*, *Ari Helenius*, *Tim Hunt* and *Tony Hunter*, will provide a further stamp of quality to The EMBO Journal and help identify future directions. The

position of Editor-in-Chief has been discontinued and *Susan Gasser*, who contributed a great deal in this role, will continue her involvement as part of the journal's Advisory Editorial Board. Twenty-eight other EMBO members have also been newly appointed to the Advisory Editorial Boards of both The EMBO Journal and EMBO reports.

For more information on EMBO's journals, go to:

www.embojournal.org

www.embo.org/reports

www.molecularsystemsbiology.com

Julie Ahringer
Wendy A Bickmore
Christine Clayton
Hans Clevers
Elisabetta Dejana
Anne Ephrussi
Richard A Flavell
Susan M Gasser

Christian Haass
Stephen C Harrison
Kristian Helin
Michael O Hengartner
Regine Hengge
Nobutaka Hirokawa
Dirk Inzé
Roland Kanaar

Wilhelm Krek
Joan Massagué
Jacopo Meldolesi
Tony Pawson
Jonathon Pines
Hidde L Ploegh
Bryan M Turner
Gerrit van Meer

Joël Vandekerckhove
Detlef Weigel
Dale B Wigley
Richard D Wood
Ada Yonath



Iain Mattaj



Pernille Rørth

Ruedi Aebersold

Senior editor of *Molecular Systems Biology*

Molecular Systems Biology, a new online journal from EMBO and NPG, launches this month. **Ruedi Aebersold**, Professor of Systems Biology at the Federal Institute of Technology (ETH) in Zurich, member of the Faculty of Natural Science at the University of Zurich and co-founder of the Institute of Systems Biology (ISB) in Seattle, is one of five senior editors who will lend their expertise to the journal and guide its development.

EMBO encounters (E): Professor Aebersold, as an emerging discipline many people are still asking what systems biology is. Is it possible to define the field at this stage?

Ruedi Aebersold (RA): There's no formal consensus at this time as to what systems biology really means. I think this is good, as you can't explain a field by its definition. As with many new disciplines, it means different things to different people. For me, the key term in systems biology is networks. We're not dealing with single molecules. Systems biology analyses biological processes as networks of interacting elements. We want to study these networks as dynamic entities and understand their structure. What we're working towards ultimately is establishing a model that explains how the system behaves.

E: Where has systems biology come from and why has it become more prominent in the last few years?

RA: The analysis of networks and how things work from a systems point of view has been around for many years, but it wasn't until recently that the experimental tools to look at biological systems became readily available. This is probably the main reason why the discipline is starting to come into its own right now. In addition, in recent years there have been fundamental new insights into networks, their structure, their properties and their genesis. These insights appear to apply to all kinds of networks, including those in biology and therefore provide a theoretical basis for systems biology.

E: So this isn't a new science?

RA: Not entirely. It's more of a new approach than a brand new science and the goals have remained the same – to understand the

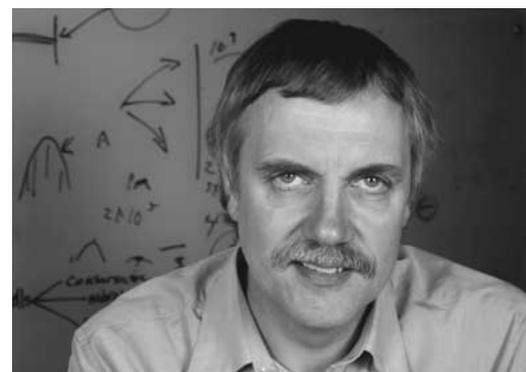
molecular processes of life. Systems biologists are essentially molecular biologists. The difference is that systems biologists don't focus on one particular molecule. Instead they look at the molecules that constitute a biological system and try to derive insights from analysis of the whole system as opposed to its individual components. It's basically the same molecules but more expansive. What is new is the incorporation of information technology and analytical disciplines, the reliance on large sets of different data types and the principle of networks as a theoretical foundation.

E: This data-driven approach must bring a number of new challenges?

RA: That's very true. Generation of global, quantitative data sets is essential to the field and this means you have to find ways of managing, integrating and mining this data. In addition, the data being compared or integrated have to be of known and consistent quality, a requirement that demands rigorous data standards. You can only do this if you have access to platforms that can generate and manage data sets consistently and these platforms are complex and expensive. You also need a highly interactive environment and this has to be reflected in the organisation you are working in. This makes practical implementation of systems biology research programmes difficult and can lead to bottlenecks in the field.

E: How important is the launch of the *Molecular Systems Biology* journal to the progression of the field?

RA: It's a great opportunity for systems biology and will potentially have a key role in defining the field. The fact that this is an EMBO and NPG initiative obviously helps to bring exposure to the field. But there's more to it than that. The new journal is an extremely innovative venture that reflects the current excitement in the field. The journal recognises that systems biology is data-driven and helps address the challenges this brings by providing an online forum for publication of complex data sets and discussion on how these data should be exchanged and formatted. These are important issues at the forefront of systems biology right now so the journal fills this gap at just the right time.



»This is a tremendous opportunity for the journal to act as a catalyst and impact the way systems biology research moves forward in the long term.«

E: And in terms of scope, what kind of papers can we expect to see on www.molecularsystemsbiology.com?

RA: This is a very important question, as the type of papers published will help structure the field. I think it is important that *Molecular Systems Biology* remains a biology journal first and foremost and is as broad and inclusive as possible. The papers published will reflect this goal and ideally come from all corners of the community whether experimental or computational.

E: I imagine that maintaining this broad focus will be an important part of your role as one of the senior editors of the journal?

RA: Certainly. As senior editors we need to do all we can to ensure that the journal covers the breadth of the field. We are working on the first submissions right now and discussing the range of papers we feel should appear in the journal and represent the field. Strict attention to quality is another important part of our job. The papers we select will set standards for the journal and to a certain extent for the field as a whole, so this is a critical task.

E: Molecular Systems Biology is an open access journal. What advantage does this have for the systems biology community?

RA: For systems biology, where the emphasis is on large amounts of data, it's a huge advantage. Let's say a researcher publishes a paper based on a few thousand gene or protein measurements. He may only use a subset of this data to make his scientific argument. With an online, open-access journal the rest of the data is still there for others to access and utilize immediately. It would be a terrible waste if this data never got out and open access certainly facilitates that. The online format of the journal will also be important for setting up and presenting data in an interactive way.

E: How do you see Molecular Systems Biology developing in the future?

RA: As I've already mentioned, my hope is that the journal will retain a broad focus and succeed in giving structure and definition to the entire discipline. This is a tremendous opportunity for the journal to act as a catalyst and impact the way systems biology research moves forward in the long term.

Ruedi Aebersold works together with a team of four other senior editors:

■ **Peer Bork**, coordinator of the Structural and Computational Biology Programme at EMBL, Heidelberg

■ **George Church**, Professor of Genetics at Harvard Medical School and Director of the Centre for Computational Genetics

■ **Leroy Hood**, co-founder and President of the Institute for Systems Biology in Seattle

■ **Edison Liu**, Executive Director of the Genome Institute in Singapore

Molecular Systems Biology is also supported by an on-site editor, working from the EMBO editorial office in Heidelberg. Currently this is *Astrid Lunkes*.

Advisory Editorial Board:

[www.nature.com/msb/
editorial_board.html](http://www.nature.com/msb/editorial_board.html)

For more information on Molecular Systems Biology and to submit a paper, go to www.molecularsystemsbiology.com

Information overload?

E-BioSci can help

In the time it takes to read this, around five new articles will have appeared in the literature. They may not all be relevant to your research but without reading them how can you be sure? And how about the 1500 or so that appeared yesterday? Despite publishers' alert services, keeping up with the literature is becoming increasingly difficult. There is also the challenge of retrieving information from the millions of articles that have accumulated in PubMed since the 1960s. EMBO's E-BioSci tool can help make this search easier.

So what makes E-BioSci different from bibliographic services like PubMed? In short, E-BioSci is not just a search engine; it is also a discovery tool. Unlike more conventional search engines, E-BioSci searches are based on concepts instead of individual keywords. This helps to narrow, broaden, or refocus your search – rapidly producing the results you are looking for.

Another distinctive feature of E-BioSci is the variety of search options available. Searches are not restricted to the literature. You can also look for patents, browse molecular databases and navigate seamlessly between each information source viewing the connections with your original search query. E-BioSci is also able to identify human gene symbols in your search results allowing you to navigate from these symbols to the relevant molecular databases.

So far E-BioSci has been well received, logging around 1300 hits per day from approximately 15000 users worldwide. Since the launch of a new prototype in January 2005, this free information service also features many new and improved functions with feedback from users being incorporated all the time.

Try E-BioSci today and send your feedback to

E-BioSci

eip@embo.org
www.e-biosci.org

Looking to go places?

EMBO Life Sciences Mobility Portal

Choosing the right career path, finding the right training and obtaining funding can be a daunting task for young researchers. Add to this the complication of moving countries or even continents and the search can become even more complex. This is where the EMBO Life Sciences Mobility Portal comes in.

Funded by the European Commission as part of its initiative to promote researcher mobility in Europe, the Life Sciences Mobility Portal is designed to help young life scientists worldwide find winning career combinations. The portal's integrated search engine finds the fastest route to information on international training, funding and career opportunities in the life sciences. No more sifting through piles of unconnected or unwanted material.

The site also acts as a one-stop shop of useful links for life scientists on the move. Users can browse links to restart programmes, grant databases, job sites and life scientist organisations. And the practical side of relocation is not forgotten. From within the portal, handy links on national visa requirements, work permits and other bureaucratic information are easily accessible.

Lonely planet? It doesn't have to be with the portal's networking and exchange facilities. The collaborative partner database helps young researchers track down potential scientific partners and generally get connected with the life scientist community. And when personal advice is required, the portal's unique consultancy service offers tailored answers to individual funding or mobility questions.

Take advantage of the wealth of opportunities out there and make your next move a good one.

Visit <http://mobility.embo.org>



**Have an interesting
mobility story?
Check out the mobility
writing competition
on page 7.**

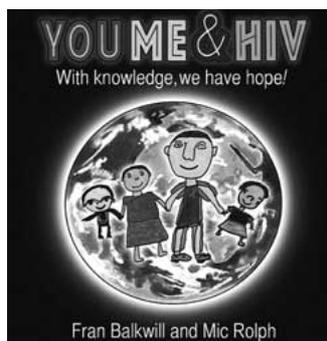
A way with words

Winner of the 2004 EMBO Award for Communication

Fran Balkwill is not your average researcher. Director of the Cancer Research UK Translational Oncology Centre at the Barts & The London, Queen Mary's Medical School and mother of two, you might think she would have time for little else. You would be wrong. In her "spare time", Fran Balkwill is a dedicated science communicator. She has authored thirteen children's science books and is the driving force behind a new science education centre for children in London's East End.

It was these innovative communications activities and her ability to juggle them successfully with a full-time research career that won Fran Balkwill the 2004 EMBO Award for Communication in the Life Sciences. Launched in 2002, the 5000 Euro award is presented annually to a practising life scientist in Europe who has made significant contributions to public understanding of science. EMBO also nominates winners of its Communication Award for the European Commission's Descartes Prize for Science Communication. [See Descartes Doubles Up article on page 11]

Since 1990, Fran Balkwill has written thirteen acclaimed children's books exploring the human body, stem cells, viruses and cancer. Illustrated by *Mic Rolph*, Balkwill's books combine punchy narrative with lively graphics, taking readers on a journey of discovery through the wonders of biology. The latest book from the author-illustrator duo, although equally entertaining, has a more profound aim – saving lives. Now in its second edition, *You, Me & HIV* is aimed at educating children at risk of contracting HIV in sub-Saharan Africa.



You, Me & HIV

Research for the book took Balkwill and Rolph to South Africa, where they talked to children, teachers and health care professionals to determine the educational needs of the local communities. *You, Me & HIV* incorporates revisions from teachers, students and community workers who have been actively working with the first edition.

Thanks to funding from the Bill and Melinda Gates Foundation, *You, Me & HIV* will reach 100,000 children and educators in sub-Saharan Africa in 2005. Using Balkwill and Rolph's effective mix of colourful graphics and straightforward language, the book communicates the harsh realities of the risks of contracting HIV and AIDS in an engaging and direct way.

As if this were not enough, Fran Balkwill also devotes a great deal of time to directing the Centre of the Cell project, a new children's science centre being developed in London's East End. The Centre of the Cell will be the first ever science education centre to be located



Fran Balkwill

»Winning this award is a great honour and I hope it will help stress the importance of science education for the young and bring attention to the plight of children at risk of HIV in Africa today.«

within a medical school with working research laboratories. The aim is to allow visitors to experience the 'real thing' and draw them into the exciting world of biomedical research through a series of interactive exhibits and hands-on activities.

www.embo.org/press/comm_award_2004.html

Call for entries:

EMBO Award for Communication in the Life Sciences 2005

EMBO is now inviting entries for its fourth Award for Communication in the Life Sciences.

Deadline: May 31, 2005

www.embo.org/projects/scisoc/com_medal.html

EMBO deadlines 2005

www.embo.org

1

April

EMBO
Young Investigator
Programme

15

April

EMBO
Science Writing
Prize

31

May

EMBO Award for
Communication in
the Life Sciences

15

June

Nomination by
EMBO members of
candidates for
EMBO Council

15

June

Nomination by
EMBO members of
candidates for 2006
EMBO membership

Reaching across the pond

EMBO fellows meet in New York

Every year approximately a third of EMBO fellows make the trip across the pond to take up a post-doc position. Far away from their European counterparts, these researchers can feel disconnected from scientific interactions in Europe. On November 19–21, 2004, in an effort to get the "North American" contingent together and bring them up to date with the latest developments in Europe, EMBO held a special fellows meeting at Rockefeller University in New York.

EMBO fellows past and present came from all over the US to gather at the renowned Rockefeller University. Hosted by the university's president and EMBO council member, *Sir Paul Nurse*, the three-day meeting treated around 70 fellows to scientific updates from EMBO young investigators, motivational

careers talks, and presentations on current opportunities from national and international funding organisations.

Despite discussions amongst participants about the difficulties of securing research positions and funding back in Europe, the atmosphere at the meeting was one of optimism. EMBO fellow, *Irini Topalidou* of Columbia University in New York, summed up the feeling of many participants, "The collective quality and passion amongst the young scientists at this meeting is impressive. Just three short days have been enough to fill us all with positive energy and renewed force."

Given the success of the New York meeting, EMBO plans to arrange similar reunion meetings in the US in the future.

The annual EMBO Fellows Meeting will be held in Heidelberg from June 17–20, 2005.

www.embo.org/projects/fellowsnet/meetings/fm_05.html

EMBO long-term fellowships – autumn 2004 selection

Demand for EMBO fellowships remains high with a record number of eligible applications received in 2004. In the Autumn 2004 selection for long-term fellowships, 84 candidates were chosen from 607 applications. In spring the number of applicants increased to 621.

Call for entries: EMBO Science Writing Prize 2005

Make science make sense

Capture the imagination of a non-scientific audience and let the science tell the story. If you are under 40 and have a knack for communicating scientific ideas in an uncomplicated and entertaining way, then try your hand at the EMBO Science Writing Prize.

Theme: **Genes and Behaviour**

Deadline: **April 15, 2005**

Prize: **Euro 1500 plus one year free subscription to EMBO reports**

www.embo.org/projects/scisoc/writing_prize.html

A little help with a big idea?

EMBO small grants scheme for science and society initiatives

Need a little help making a new idea fly? EMBO has started a small grants scheme to support scientists trying to get science and society initiatives off the ground. The grants are open to all practicing life scientists who have an idea that could help make science and scientists more accessible to the general public.

For more information, please e-mail
scisoc@embo.org

Making the »write« move

EMBO Mobility Writing Competition

Enter the Life Sciences Mobility Portal's writing competition and tell your own personal mobility story. Articles should be non-scientific in style and describe your experience of moving abroad to take up a research post. You can write about any relevant mobility issues, for example, cultural and economic challenges or the bureaucratic hurdles you had to overcome.

Deadline: **April 30, 2005**

Prize: **Euro 500 and publication on the Life Sciences Mobility Portal**

For more details and information on competition rules and eligibility, e-mail

mobility@embo.org
<http://mobility.embo.org>

30
April

Nomination by
EMBO members of
EMBO Gold Medal
candidates

30
April

EMBO
Life Sciences
Mobility Portal
Writing Competition

1
August

EMBO/HHMI
Startup Grants

1
August

EMBO Courses,
Workshops and
Conference Series

15
August

EMBO
Long-Term
Fellowships

EMBO deadlines 2005 www.embo.org

Warsaw to host world's leading molecular biologists

2005 EMBO Members Workshop

The 2005 meeting of EMBO members, *Frontiers of Molecular Biology*, will take place in Warsaw, Poland from October 14–18. Held annually in a different EMBO member state, the EMBO Members Workshop is a unique networking opportunity bringing together leading scientists from all corners of the vast network that is molecular biology today. Speakers at the meeting will come from the EMBO membership but participation is open to the entire scientific community.

The main focus of the EMBO Members Workshop will be a range of talks by new EMBO members, elected to the organisation in 2004. This is a chance to meet the new members and hear about exciting developments in the broad spectrum of fields they represent. This year's meeting will also feature a more focused mini-symposium entitled "Microbiology Today" with presentations from EMBO microbiologists. By bringing together key contributors to this field, EMBO aims to further

promote and strengthen the microbiology community. One highlight of the mini-symposium will be a special Nobel lecture on "Darwin in the Microbial World", delivered by EMBO member and Nobel laureate, *Werner Arber*.

Other high points of the 2005 EMBO Members Workshop include a lecture by the winner of the EMBO Gold Medal, to be selected in August 2005, and a special interactive session entitled "Genes and Behaviour", which will be open to the public. A members' forum will also give the EMBO membership the opportunity to enter into direct dialogue with EMBO and discuss its activities.

■ EMBO Members Workshop 2005 (organised by EMBO member, *Maciej Zyllicz*)
www.eurocongress.com.pl/embo2005

■ Details of EMBO members elected in 2004:
www.embo.org/organisation/new_members_04_all.html

■ Photos of the 2004 EMBO Members Workshop held in Vienna, Austria:
www.embo.org/organisation/Vie_04/vienna_04_photo.html



EMBC Update

Decisions from 2004 EMBC meeting

EMBC, the intergovernmental funding organisation of EMBO, met in session on November 15–16, 2004. Discussions at this meeting resulted in the following decisions:

Marja Makarow of Finland was re-elected EMBC President and *Frank Gannon* re-elected as Secretary General. *Kresimir Pavelic* of Croatia was elected Vice President joining the existing Vice President, *Peter Weisbeek* of the Netherlands. *Brita Beije* of Sweden was elected Chair of the Financial Advisory Group and *Maria Jose Almeida* of Portugal became Vice Chair.

EMBC asked that EMBO propose a list of leading molecular biologists to the group that has been appointed by the European

Commission to select the founding senate of the European Research Council (ERC). EMBO has since done so (see Foreword from Frank Gannon on page 1).

EMBC accepted a proposal for EMBO to provide advice on science policy issues. EMBO will formulate perspectives and recommendations and communicate these to policy-makers in EMBC member states through the EMBC delegates. The EMBO membership will be given the opportunity to provide their input on the chosen topics. An initial meeting on advisory priorities and future actions was held in Frankfurt on January 25, 2005.

EMBC endorsed a proposal to establish a funding scheme that will support researchers

setting up laboratories in countries that are developing their science bases. Further discussions on the proposed Strategic Development Installation Grants took place at a meeting of EMBC on February 7 in Budapest. This scheme builds upon the recently launched EMBO/HHMI Startup Grants (see page 3).

EMBC

www.embo.org/embc

Cracking the code

Epigenome Network of Excellence

Until fairly recently DNA was seen as the sole source of hereditary traits passed down from generation to generation. Advances in the emerging field of epigenetics have since proved otherwise and shown that there is more to our genetic blueprint than just DNA.

Epigenetics addresses another side of heredity, whereby our genes are turned "on" or "off" independently of the genetic code. Scientists are increasingly putting this down to a so-called "epigenetic code", a buzzword, which is now at the forefront of genetic research and the focus of a recent European Commission research initiative – the Epigenome Network of Excellence (NoE).

The Epigenome NoE brings together the leading research groups in Europe to investigate gene regulation and come that bit closer to cracking the epigenetic code. Coordinated by *Thomas Jenuwein* of the Research Institute of Molecular Pathology in Vienna, *Geneviève Almouzni* of the French National Centre for Scientific Research (CNRS) in Paris (both EMBO members) and *Phil Avner* of the Institute Pasteur in Paris, the network aims to advance scientific discoveries in the field and provide

the basis for an effective collaborative research community. Funded by the European Commission as part of its Sixth Framework Programme, the project will receive 12.5 million Euro over its five-year duration.

The network pools the resources of sixty-three research groups in forty institutes across Europe. This equates to a team of some 378 scientists working together in a "virtual" cross-border institute on aspects of epigenetic regulation ranging from chromatin modifications to cell fate and disease. Twelve of the research teams join the network through its NET (newly established team) programme, which provides financial support and mentoring to talented young researchers. The current team also includes twenty-five EMBO members and two EMBO young investigators. The network will continue to expand with the ultimate goal of integrating all ongoing epigenetic research in Europe.

Building on this combined expertise, the Epigenome NoE will address some of the big questions in epigenetic research today and endeavour to unravel the basic molecular mechanisms underlying epigenetic gene regu-

lation. "It is very likely that an epigenetic code helps to determine patterns of gene expression over many cell generations. We would like to understand that code", says Thomas Jenuwein. Epigenetic mechanisms provide a memory for cells to recall their gene expression pattern. When this memory fails, the result can be developmental abnormalities or disease. The potential unscrambling of an epigenetic code could have far-reaching implications for human biology leading to advances in our understanding of disorders such as cancer and age-related diseases.

During the five-year project, the Epigenome Network of Excellence will serve members and non-members from the epigenetic community with shared resources, conferences, workshops and training visits. Critical to this will be the creation of a virtual core institute with an interactive website acting as a communication hub for the project's partners and other research groups, as well as an information source for the general public.

www.epigenome-noe.net



Members of the Epigenome Network of Excellence (NoE)

From international competitor to local collaborator

In this issue, Ian Macreadie of Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO) tells us about his EMBO short-term fellowship to the Institute of Microbiology at the University of Lausanne (CHUV) in Switzerland.

In November 2004, thanks to EMBO's World Activities, I was offered the unique opportunity to start a collaboration with a former competitor. An EMBO short-term fellowship brought me to the lab of Swiss researcher, *Dr Philippe Hauser* of the CHUV Institute of Microbiology in Lausanne.

Philippe and I had never met but were familiar with each other's work, as we shared a strong common interest in drug resistance in the human pathogen, *Pneumocystis carinii* (now called *P. jirovecii*). In the past, we had competed in this area but now found ourselves combining our efforts to tackle a significant unanswered question in our research.

The EMBO fellowship application procedure suited us perfectly. It quickly established that all parties had the correct credentials, and that the research proposal was sound and of benefit to the host institution. The review process was also fast with the application lodged just 3 months before I set off for Switzerland in November 2004.

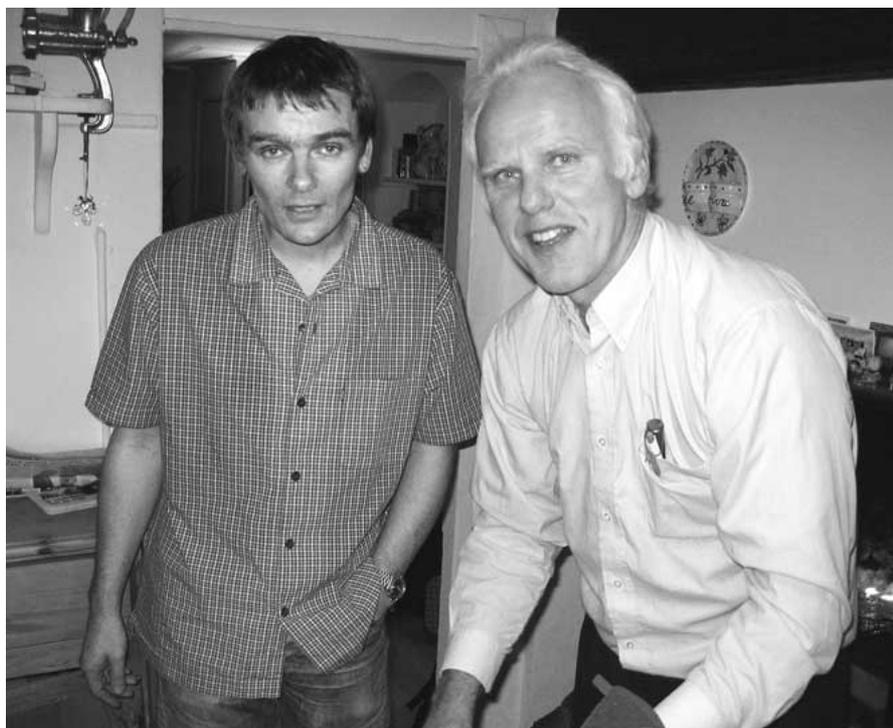
Switzerland was not new to me but I had never experienced day-to-day life there. CHUV offered us a basic but adequate apartment for one month. It was conveniently located only 200 metres from the lab, which meant experiments could be organized almost continuously. It was also close to downtown

Lausanne, which made it fun for my wife and two daughters who took the opportunity to explore Lausanne intensively.

During weekend breaks we enjoyed trips to the beautiful alpine mountains, lakes and vineyards of the area. Getting to grips with the cultural and linguistic differences was exciting for us with many interesting contrasts to our life in Australia. We made new friends, learned a great deal (although our French is still primitive) and greatly increased our appreciation of Europe. My daughters are considering possibilities to return to Switzerland to study or work as au pairs.

As for our project, it was very successful, enabling Philippe and I to isolate and sequence the *Pneumocystis* gene within one month. And our collaboration did not stop there. Since leaving Lausanne, our work has continued to progress actively with the checking of functional complementation of the *Pneumocystis* gene in yeast and *E. coli* mutant strains. We anticipate having a paper ready for submission in the coming weeks. I will also be returning to Dr Hauser's lab in the summer to advance our work further. Our new research will delve even deeper into drug resistance mechanisms from mutational and structural biology aspects.

Ian Macreadie



Want to share your experience of an EMBO activity? Perhaps as an EMBO fellow or young investigator? Then write to

communications@embo.org.

Philippe Hauser and Ian Macreadie

Integration of former World Programme and Restart fellowships into EMBO Fellowship Programme

N.B.

The former Restart and World Programme fellowships were integrated into the EMBO Fellowship Programme in July 2004.

Integration of the World Programme fellowships into the EMBO short-term fellowships widens EMBO's reach outside Europe and promotes international collaboration. Candidates from non-EMBC member states can now apply to take up fellowships in an EMBC member state. The same is true for applicants from EMBC member states wishing to collaborate with a laboratory outside Europe.

All eligibility criteria from the former Restart fellowships are now part of the EMBO long-term fellowships. These changes bring greater flexibility to career break candidates and applicants with childcare obligations. One example is the opportunity for candidates to carry out their two-year fellowship on a part-time basis over a period of up to three years.

www.embo.org/fellowships/fellow_guide.html

Descartes doubles up

EU honours both research and communication



Peter Csermely

The presentation of the EU Descartes Prize for Research in December 2004 was accompanied for the first time ever by the Descartes Prize for Science Communication.

Peter Csermely, winner of the 2003 EMBO Award for Communication in the Life Sciences was one of five finalists to share the 250,000 Euro award for his "innovative action for science communication". The 1 million Euro Descartes Prize for outstanding cross-border research went to a quantum physics team and a group led by EMBO member, *Howy Jacobs* of the University of Tampere in Finland.

The joint efforts of Howy Jacob's Mitochondrial Biogenesis, Ageing and Disease (MBAD) group have made significant inroads into the understanding of mitochondrial DNA. A purely curiosity-driven project, the group's fifteen-year collaboration has shed new light on the complex biological processes involved in ageing.

MBAD links researchers from five partner institutions across the UK, Sweden, Italy, France and Finland. Accepting the award on behalf of the cross-border team, Jacobs applauded the Descartes Prize as an indicator of scientific excellence. At the same time, he stressed the need for EU efforts to focus on "simply the best science" and the freedom to

pursue basic research without over-concentration on short-term tangible benefits.

The first ever Descartes Prize for Communication honoured five leading science communicators. Peter Csermely of Semmelweis University in Hungary was singled out for his contribution to stimulating interest in science among young Europeans. Winner of the EMBO Award for Communication in the Life Sciences in 2003, Csermely was nominated by EMBO for the Descartes prize.

His winning initiative, "Network of Youth Excellence", brings young people into research via an international network supported by teachers and scientific mentors. The network seeks to correct the under-representation of women, minorities and low-income groups in the higher echelons of research.

Peter Csermely launched the network in 1996, starting out with around 100 students, 300 mentors and 50 high school teachers. Since then the movement has grown enormously, almost doubling its numbers year on

year. All in all, the initiative has helped 7000 youngsters find their way into the best scientific teams in Hungary.

On accepting the award, Csermely talked about a scientist's responsibility to the science of the future. His message was simple and echoed in the speeches of all five winners "Science communication is not a mission; it is a necessity".

www.cordis.lu/science-society/descartes/prize2004.htm

Read the EMBO *reports* article on the Descartes Prize for Science Communication: *Descartes' Europe: one good revolution deserves another*

www.emboreports.org

Howy Jacobs, co-ordinator of the MBAD group and Anders Karlsson, co-ordinator of the QuComm group [Quantum Physics]



2005

March 13–16, Würzburg, DE

13th AEK/AIO Cancer Congress
Ulf R. Rapp
www.aek-aio-congress.de

April 11–15, Lyon, FR

BioVision 2005 – The World Life Sciences
Forum
François Gros
www.biovision.org

May 17–20, The Hague, NL

Building the Scientific Mind –
Advanced International Colloquium
Jan Visser
www.learndev.org/
ColloquiumBuildingTSM2005.html

July 2–7, Budapest, HU

30th FEBS Congress & 9th IUBMB
Conference on the Protein World
Julio Celis, Pál Venetianer
www.febs-iubmb-2005.com

September 3–7, Dresden, D

ELSO 2005 – Frontiers of Cell,
Developmental and Molecular Biology
Kai Simons
www.elseo.org

September 25–29, Tomar, PT

International Congress on Stress
responses in Biology and Medicine
Claudina Rodrigues-Pousada
www.cellstress.uconn.edu

Code of BioT-Ethics

European conference addresses ethics of biotechnology

The bioethical responsibility of scientists will be the focus of an EMBO Science & Society session at a conference of the EC-funded BioT-Ethics initiative April 21–23 in Maastricht. The interactive workshop will deal with the increasing demands placed on bioscientists to provide expert commentary on common "BioT-Ethical" dilemmas.

What are the consequences for science and society of placing this weighty responsibility on scientists' shoulders? Are ethics best left to ethicists or is there a social duty for scientists to fulfil this role? Weighing up the pros and cons of both arguments, the session will address how scientists can respond to ethical questions and communicate positively and responsibly with the media and public.

Other sessions at the three-day BioT-Ethics conference will bring together ethics experts, scientists, industry and science administrators to discuss research, teaching and decision-making in biotechnology ethics. The event represents the concluding conference of the BioT-Ethics project, which was founded in

May 2002 to address a gap in the analysis and teaching of biotechnology ethics as opposed to bioethics, where the focus is mainly on medical ethics.

Run by groups from eleven different European countries and coordinated by EMBO member, *Franco Celada*, the three-year project has intermingled research on biotechnology ethics with the teaching of experimental courses. The ultimate goal of the initiative is to build a permanent European institution devoted to research and education in BioT-Ethics.

For further information on the BioT-Ethics conference and a full programme, contact the conference secretariat:
secretariaat-ige@ige.unimaas.nl.

A certain number of accommodation bursaries are available to young scientists.

Closing date for registrations is
March 31, 2005.

www.biotethics.org

If you are involved in or organising an event that may be of interest to the EMBO community contact: communications@embo.org

Speakers corner

Have your say on hot topics in European science

This issue features an extract from the "Manifesto of European Scientists", an Italian-born initiative launched to address cuts in public funding of basic research and the increasing focus on applied research by national governments. The aim is to collect signatories and bring the manifesto to the attention of the Parliament and Commission of the European Union.

The manifesto asks that:

- **Minimum public funding for fundamental research be set nationally in terms of a declared percentage of GDP – in the same way that compliance with predefined economic indicators is conditional to membership of the EU**
- **Guidelines be defined for the self-government of EU and national bodies responsible for fundamental research, which ensure independence from the political system and from pressure groups**

**Do you agree? Then sign up at www.forscience.it.
If not, make your view known by writing to communications@embo.org.**

Obituaries

Eduard Kellenberger (1920–2004)

by Bruno J. Strasser



Eduard Kellenberger, who spent his foremost years trying to make the microscopic world visible, will sadly no longer be seen on the molecular biology stage. Kellenberger was a pioneer in electron microscopy and microbial genetics, a major player in the establishment of molecular biology in Europe, and a founder of EMBO. He passed away on December 13, 2004.

Eduard Kellenberger was trained as a physicist under *Paul Scherrer* in Zurich, Switzerland. In 1945, he took up a job in the laboratory of *Jean Weigle* at the University of Geneva to work on the development of a Swiss electron microscope. His theoretical and practical skills brought a number of improvements, not only to the instrument but also to the preparation methods, especially in the visualization of biological materials. In 1958, together with *Antoinette Rytter*, he developed the "RK method", which became a standard procedure for the fixation of bacteria. This work paved the way for his conversion to biology.

In 1948, after Weigle had left for the California Institute of Technology to become a phage geneticist in *Max Delbrück's* group, Kellenberger replaced him as head of the laboratory. Weigle continued to pay regular visits to his former laboratory bringing the latest methods and problems of phage genetics from the United States, which were largely unknown in Europe at the time. Kellenberger took up this line of research, combined it with electron microscopy, and led the development of a suc-

cessful group in "biophysics". One member of Kellenberger's group was *Werner Arber*, whose research in the early 1960s led him to the discovery of restriction enzymes and to the Nobel Prize in 1978.

In 1959, Kellenberger's plans took on a grander scale. Convinced that the development of "modern biology", as he used to call it, required a combination of physical, genetic, and (bio)chemical approaches, he drew up plans for an institute of molecular biology. It required all of Kellenberger's persuasiveness to convince academic and political officials to support his project. The institute was finally created in 1963, headed by Kellenberger and the Swiss biochemist, *Alfred Tissières*.

That same year, the founding meeting of EMBO took place in Ravello, Italy. Kellenberger participated in this crucial meeting and became Switzerland's representative in the first EMBO council. EMBO had great plans to develop molecular biology in Europe through a fellowship programme and the creation of an international laboratory. However, at that time, EMBO was really little more than a club of enthusiastic scientists – not short on passion but lacking the funds to have an international impact.

In 1964, in a bid to change this, Kellenberger arranged for EMBO to become a legally registered organisation in Switzerland. He contacted the Swiss minister of foreign affairs to support EMBO. As a result, Swiss federal authorities took the diplomatic initiative to convey an intergovernmental conference in 1967, leading to an agreement between European States to support EMBO financially. This meant that EMBO could develop its fellowship programme and envision the creation of an international laboratory, which eventually materialised as EMBL in Heidelberg in 1978.

Kellenberger was a humanist who liked to share knowledge. He encouraged and supported young researchers, pushing them to think deeply about the physical basis of scientific experimentation and the biological importance of the problems under investigation. He also questioned the social impact of scientific knowledge and tried to make it serve a socially more responsible and more peaceful world. This is why he will be missed by so many.

Bruno J. Strasser

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bruno.strasser@unil.ch

For more information, see:

Bruno J. Strasser and Jacques Dubochet, *Nature* **433**: 817, 2005.

Eduard Kellenberger at the Physics Institute in Geneva in the 1950s



Obituaries

A personal tribute to Eduard Kellenberger

by Frank Gannon

When EMBO was founded in the early 1960s it made no impact on my life. In contrast, the recent passing of *Eduard Kellenberger* was a moment that touched me profoundly.

Eduard was one of those individuals who, as an active scientist, was part of the earliest stages of EMBO's creation. He participated in discussions and meetings that had a lasting impact on EMBO's structure and style. He played a particularly important role in ensuring that EMBO was legally registered in Switzerland and in structuring the organisation in its delicate start-up phase. Those who knew Eduard will remember him as a gentle, intelligent and reflective scientist. He was never overbearing and yet the logic of his interventions was frequently decisive.

Although for me, Eduard was a 'historical figure', from the moment of our first meeting

he also became a loveable personality and his pride in EMBO's development was palpable. He made tremendous efforts in his last years to contribute all he could to the organisation. He attended a meeting on the history of EMBO and contributed actively in strengthening the EMBO archives. The last time we met at the EMBO 40th anniversary celebrations in June 2004, Eduard fully participated in the proceedings, almost heroically, despite his frail condition. Accompanied at all times by his partner, *Cornelia*, it was obvious that this was a couple that had reached a very special degree of teamwork.

In recent years, I received Christmas letters from Eduard, in which he discussed a variety of topics relating to world politics and society. His intellect shone brightly through those letters, as it did in his articles in *EMBO reports*,

which pointed to changes in paradigms of how research is being performed.

Eduard was an example that we could all learn from. His remarkable qualities were always matched by an equally strong humility. He lived a very full life and in his later years, I hope he felt the high degree of fulfilment that he deserved. EMBO certainly benefited tremendously from his presence and will continue to do so for many years to come.

At EMBO, Eduard will be remembered as a pioneer who, in the 60s, saw a need and acted on it decisively. We must remain faithful to this heritage at all times and the gentle input from Eduard in recent years will ensure that a new generation of EMBO will carry the flag that he first helped to raise 40 years ago.

Erling Seeberg (1946–2004)

by Erik Boye

Professor *Erling Seeberg* passed away on December 14, 2004. For many years, Erling had fought his cancer bravely, always remaining in good spirits. He was Norway's first and most major pioneer in molecular biology and one of its strongest and most respected scientists.

After graduating in biochemistry in 1969, Erling started his professional career working with DNA repair. He made an impact early on

by purifying and characterising the repair proteins UvrA/B/C of *E. coli*. First to identify nucleotide excision as a multi-protein process, base excision repair and the characterisation of oxidative DNA damage and repair became central to his research. Oxidative DNA damage has been strongly implicated in ageing and diseases such as cancer and neurological disorders, and Erling has made a critical contribution to our understanding of these mechanisms.

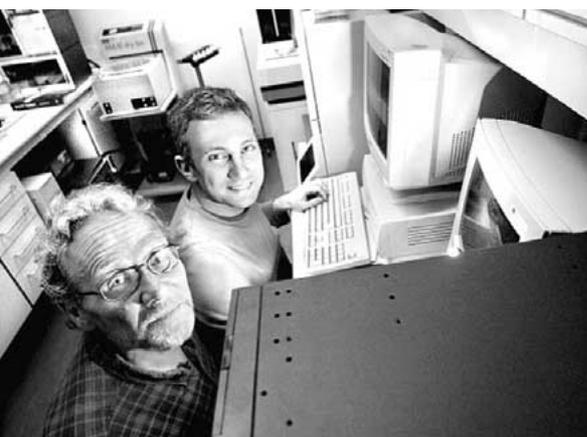
Throughout his career, Erling received several prestigious prizes, most recently the Anders Jahres Award for Medical Research, which he shared with *Hans E. Krokan* for their ground-breaking DNA research. He became an EMBO member in 1993 and organised and participated in several EMBO events.

I found Erling to be an extremely dedicated and gifted scientist who refused to give up hope of ever coming back to the lab. I remember a time in November last year when Erling, who was on enforced sick leave, sneaked back to the lab in the middle of the night to work on a common grant application. This is one of many examples that showed his enduring



Erling Seeberg

commitment and spirit despite his own personal circumstances. In Erling, we have not only lost an outstanding colleague but also a dear friend.



Erling Seeberg and a colleague in 2001
(photo: Elin Høyland, Oslo)

If you would like to inform EMBO of the passing of an EMBO member or write a personal tribute, please e-mail communications@embo.org.

books

**Chromatin and Gene Regulation –
Molecular Mechanisms in
Epigenetics**

(Blackwell Science 2001)

By Bryan Turner

Science magazine said:
“Geared toward graduate students and
scientists entering the field, the book will
also reward anyone who enjoys a broad
treatment of an interesting and timely
subject... Turner also provides a
compelling story for biologists in almost
any field to use as a springboard to con-
template the significance of chromatin
in their favorite process, perhaps fostering
still more novel communication between
previously disparate areas of research.”

[www.sciencemag.org/cgi/content/full/
300/5617/252b](http://www.sciencemag.org/cgi/content/full/300/5617/252b)

**Christian B. Anfinsen Award 2004,
USA**

Meir Wilchek for his contribution to
aspects of the biorecognition phenomenon
including the development of affinity
chromatography

EU Descartes Prize

Howy Jacobs and his research group for
their outstanding cross-border research on
mitochondrial DNA

**EU Descartes Prize for Science
Communication**

Peter Csermely for his innovative actions
to stimulate interest in science among
young Europeans

Familie-Hansen-Preis, D

Rüdiger Klein for his contribution
to biology and medicine and his
outstanding work on the development of
the nervous system

**Order of the British Empire, Dame
Commander (DBE), UK**

Jean Olwen Thomas in recognition of her
services to biochemistry

Inserm – Le Grand Prix 2004, FR

Jean-Marc Egly for his landmark discovery
of TFIH and his work on the transcription
and repair of ADN

Inserm – Prix d'Honneur 2004, FR

Pierre Chambon for his outstanding
work in the field of genetics and molecular
biology

Israel Prize in Biochemistry 2004

Aharon Razin for his significant
contribution to promoting understanding
of gene control mechanisms

Japan Prize 2005

Erkki Ruoslahti for his fundamental
contributions in elucidating the molecular
mechanisms of cell adhesion

Leibniz-Preis 2005, D

Peter Becker for his exceptional research
and discoveries in chromatin dynamics

**Liliane Bettencourt Life Sciences
Award, FR**

Anne Ridley for her outstanding research
into the adhesion and migration of
inflammatory and cancer cells

**Louis-Jeantet-Prize for Medicine
2005, CH**

Alan Hall for his pioneering work on
the regulation of cytoskeleton dynamics in
cell adhesion, migration and polarity

Svante Pääbo for his innovative research
on the evolution of the human genome in
comparison to that of other primates

**Order of the British Empire,
Commander (CBE), UK**

Cheryll Anne Tickle in recognition of
her services to biology

**Order of the British Empire,
Commander (CBE), UK**

Alan Smith in recognition of his
contributions to biotechnology research
and British trade development

Wilhelm Exner Medal 2004, AT

Meir Wilchek for his impact on research,
technology transfer and industry through
his affinity discoveries and development of
the Avidin-Biotin System

awards of excellence

The next EMBOencounters issue — spring 2005 — will be dispatched in June 2005. You can send your contributions/news to: communications@embo.org at any time. The deadline for the June issue is May 15th, 2005

frontiers of molecular biology

SPEAKERS

[new EMBO members
elected in 2004]

- Siv G.E. Andersson ■
- Yehudit Bergman ■
- Michael Brunner ■
- Graham Cameron ■
- Bart de Strooper ■
- Hugues De Thé ■
- Ivan Dikic ■
- Jeff Errington ■
- Marco Foiani ■
- Hans Hengartner ■
- Jonathon Howard ■
- Laurence D. Hurst ■
- Mariusz Jaskólski ■
- Klas Kärre ■
- Nancy Kleckner ■
- Jan Löwe ■
- Paolo Lusso ■
- Andrew J. McMichael ■
- Abraham Minsky ■
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- Klaus-Armin Nave ■
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Warsaw | Poland

14–18 October 2005

The programme covers a wide
range of topics and includes:

a mini-symposium

■ Microbiology today

a Nobel lecture

■ Darwin in the microbial world
given by Werner Arber

a special session

■ Genes and behaviour
(open to the public)

For further information and
registration contact

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DEADLINE for registration: 15 July 2005

www.embo.org

