EMBO

excellence in life sciences

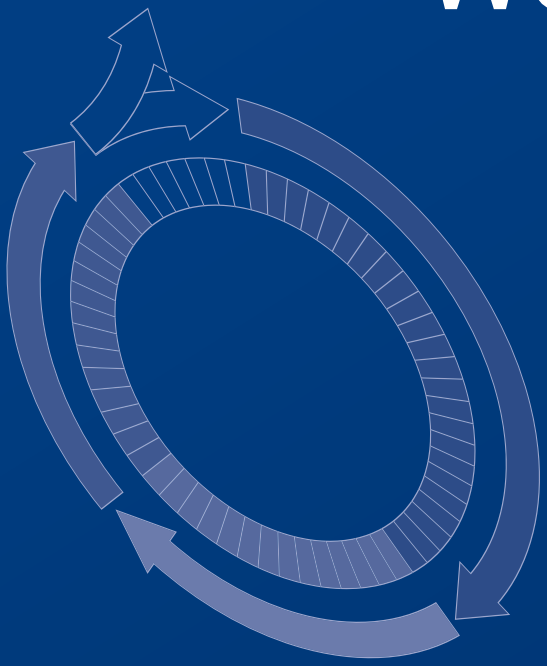
EMBO

excellence in life sciences

EMBO vision

A Europe where top-level life science research thrives

we value



expertise & insight
to identify the future directions of research

impartial evaluation
to choose by scientific excellence alone

high standards
that are key to best research practice

In 1964, the founders of EMBO aimed to raise the level of biological research in Europe by setting the highest standards to achieve scientific excellence. Remaining true to this early vision, their principles and standards continue to guide our activities today.

EMBO immediately began to enhance interactions between European laboratories with the election of 140 biologists as the organization's first members and by granting the first postdoctoral fellowships. In 1974, EMBO fulfilled its second founding mandate: the establishment of the European Molecular Biology Laboratory (EMBL).

Support for EMBO actions came in 1969 with the formation of the European Molecular Biology Conference (EMBC) as the organization's intergovernmental funding body.

Member states of EMBC, intergovernmental funding body of EMBO (2014)

Austria	France	Italy	Slovenia
Belgiutm	Germany	Luxembourg	Spain
Croatia	Greece	Netherlands	Sweden
Czech Republic	Hungary	Norway	Switzerland
Denmark	Iceland	Poland	Turkey
Estonia	Ireland	Portugal	United Kingdom
Finland	Israel	Slovak Republic	

EMBO stands for excellence in the life sciences

EMBO mission

We enable the best science by supporting talented researchers, stimulating scientific exchange and advancing policies for a world-class European research environment.

EMBO is an organization of leading life scientist members that fosters new generations of researchers to produce world-class scientific results.

Through the expertise and insight of our members, we help create a Europe where top-level life science research thrives.

We support talented researchers, selected through impartial evaluation processes, to do great science with creativity and passion.

We provide platforms for scientific exchange and training in cutting-edge technologies so that the high standards of excellence in research practice are maintained. We help to shape science and research policy for a world-class European research environment.

The wide scientific scope across the full range of life science research coupled with the broad geographical reach of our more than 1600 members and associate members – some of the best researchers in Europe and around the world – positions us to optimally serve Europe's life science community.

we lead

EMBO actions are directed and guided by members who are leaders within their fields and recognized for research excellence. Fifteen members make up the EMBO Council to guide the execution of the organization's activities. The EMBO Director, management team and staff work closely with more than 100 members who serve on nine committees and advisory boards.

Paul Nurse
EMBO Member since 1987
EMBO Secretary General

President of the
Royal Society
London, United Kingdom

Detlef Weigel
EMBO Member since 2003
Chair of the EMBO Council

Director
Max Planck Institute for
Developmental Biology
Tübingen, Germany

Maria Leptin
EMBO Member since 1996
Director of EMBO

Group Leader
Institute of Genetics
University of Cologne and
European Molecular Biology
Laboratory

Proven excellence in research

EMBO Members – leaders in their research fields – promote scientific excellence and influence the future directions of research.

Election to EMBO membership is recognition of the commitment to research excellence and the outstanding achievements made by a life scientist. The annual nominations and elections ensure that the membership remains at the forefront of contemporary life science research.

EMBO Members and Associate Members include more than 1600 of the best researchers in Europe and around the world. They are leaders in their research fields and communities.

With emphasis always on scientific merit, our members apply their expertise and insight to select the many talented scientists who we support each year to do the best science. As a result, EMBO Members collectively influence the future directions of life science research and strengthen research communities across Europe, without prejudice.

Such cross-border interaction amongst research leaders ensures that Europe is a unified community of excellence where top-level life science research thrives.

Svante Pääbo
EMBO Member since 1999
Director
Department of Genetics
Max Planck Institute for
Evolutionary Anthropology
Leipzig, Germany

To do the best research, it takes irreverence for the received wisdom and even a desire to overturn it on the one hand, balanced by a rigorous and critical attitude to one's own ideas on the other.

A community of research excellence

More than 1600 EMBO Members & Associate Members

Recognized for research excellence by their peers, EMBO Members are leaders within their institutes and the broader research community.

Sophie Martin
EMBO Gold Medal 2014
Associate Professor
University of Lausanne
Switzerland

EMBO Gold Medal

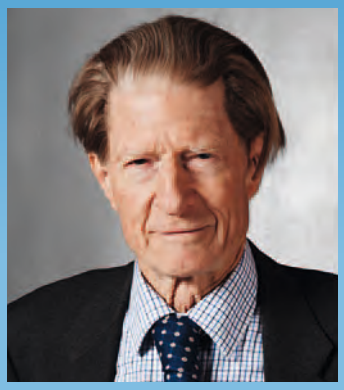
Awarded annually since 1986, the EMBO Gold Medal recognizes the outstanding contributions of young researchers in the life sciences. In 2014, Sophie Martin received the award for her work to understand the molecular events that define the organization and development of the cell. Martin has been working for more than 15 years to understand cellular polarity, in particular the way in which the spatial organization of cells contributes to cell size and cell division.

EMBO Gold Medal Winners

1986	J. Tooze
1987	B. Pearse
1988	A. Lanzavecchia
1989	H. Pelham
1990	E. Wagner
1991	P. Stragier
1992	C.-H. Heldin
1993	J. Smith
1994	P. Sassone-Corsi
1995	R. Treisman
1996	E. Coen
1997	D. Görlich
1998	A. Aguzzi
1999	K. Basler
2000	C. Niehrs
2000	D. St Johnston
2001	M. Freeman
2002	A. Fisher
2003	A. Hyman
2004	M. Blasco
2005	D. Alessi
2006	F. Uhlmann
2007	J. Löwe
2008	J. Briscoe
2009	O. Voinnet
2010	J.W. Chin
2011	S. Boulton
2012	J. Friml
2013	T. Brummelkamp
2014	S. Martin

Central funding of curiosity-driven research based on excellence will make Europe a place where top-level life science research thrives. Within the individual countries, we need to remove administrative hurdles so that our scientists can do their best research.

Angela Nieto
EMBO Member since 2000 | EMBC Delegate since 2009
Head, Developmental Neurobiology, Institute for Neurosciences
Alicante, Spain



John Gurdon
EMBO Member since 1972
The Gurdon Institute
Nobel Prize in Physiology or Medicine 2012

Shinya Yamanaka
EMBO Associate Member since 2010
Kyoto University
Nobel Prize in Physiology or Medicine 2012

77 from the EMBO membership are distinguished as Nobel Laureates

In 2012, EMBO Member John Gurdon and EMBO Associate Member Shinya Yamanaka were awarded the Nobel Prize in Physiology or Medicine for the discovery that mature cells can be reprogrammed to become pluripotent.

EMBO Members who received the Nobel Prize in Physiology or Medicine

1953 F.A. Lipmann
1955 H.A.T. Theorell
1957 D. Bovet
1959 A. Kornberg
1962 F.H. Crick
1962 J.D. Watson
1962 M. Wilkins
1965 F. Jacob
1965 A. Lwoff
1968 H.G. Khorana
1969 M. Delbrück
1970 B. Katz
1972 R.R. Porter
1974 A. Claude
1974 C. de Duve
1975 D. Baltimore
1975 R. Dulbecco
1978 W. Arber
1978 D. Nathans
1984 N.K. Jerne
1984 G.J.F. Köhler
1984 C. Milstein
1986 R. Levi-Montalcini
1987 S. Tonegawa
1989 H.E. Varmus
1991 E. Neher
1991 B. Sakmann
1992 E.H. Fischer
1993 P.A. Sharp
1993 R.J. Roberts
1995 C. Nüsslein-Volhard
1995 E.F. Wieschaus
1996 R.M. Zinkernagel
1999 G. Blobel
2001 P.M. Nurse
2001 T. Hunt
2002 S. Brenner
2002 J.E. Sulston
2006 A.Z. Fire
2007 M.J. Evans
2008 H. zur Hausen
2008 F. Barré-Sinoussi
2008 L. Montagnier
2009 E.H. Blackburn
2011 B.A. Beutler
2011 J. Hoffmann
2012 J. Gurdon
2012 S. Yamanaka
2013 J.E. Rothman
2013 R.W. Schekman

EMBO Members who received the Nobel Prize in Chemistry or in Physics

1939 W.L. Bragg IN PHYSICS
1939 A. Butenandt
1944 I.I. Rabi IN PHYSICS
1948 A. Tiselius
1958 F. Sanger
1961 M.F. Perutz
1961 R.L. Mößbauer IN PHYSICS
1962 J.C. Kendrew
1964 D. Hodgkin
1967 M. Eigen
1978 P.D. Mitchell
1980 P. Berg
1980 F. Sanger
1982 A. Klug
1988 R. Huber
1988 H. Michel
1989 T.R. Cech
1993 M. Smith
1997 J.E. Walker
1997 J.C. Skou
2002 K. Wüthrich
2004 A. Ciechanover
2004 A. Hershko
2006 R.D. Kornberg
2008 R.Y. Tsien
2009 V. Ramakrishnan
2009 A.E. Yonath
2013 M. Levitt

we support

the best scientists

>2,500 postdoctoral researchers

awarded EMBO Long-Term Fellowships
since 2001

>300 group leaders

joined the EMBO Young Investigator network
since 2001

EMBO supports talented researchers

We foster a new generation of European scientists by helping them to advance their research, promote their international reputations and ensure their mobility.

Fellows

supporting international research careers

Young scientists actively seek EMBO Long-Term Fellowships for postdoctoral research to fund and support their internationally mobile careers. Hundreds of scientists also benefit each year from EMBO Short-Term Fellowships, returning to their home laboratories with new skills as well as contacts for future collaborations.

Young Investigators

networking for tomorrow's life science leaders

Selected annually, EMBO Young Investigators are recognized as some of the best young group leaders in Europe. Awardees receive a three-year grant, mentoring by EMBO Members and practical support. They join a dynamic network of current and former young investigators and installation grantees.

Installation Grantees

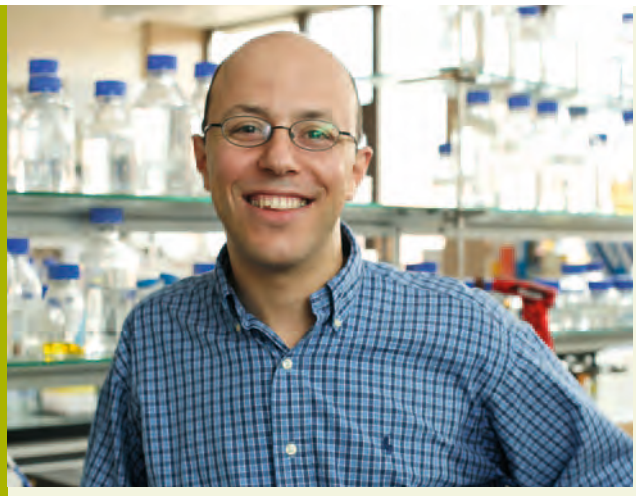
strengthening European science

Geared for young scientists in countries actively developing basic research capacity, EMBO Installation Grants currently help young group leaders establish their laboratories in the Czech Republic, Poland, Portugal or Turkey. Successful applicants receive financial support for up to five years from the host country and join the EMBO Young Investigator network.

Science that matters

"The success that EMBO Fellows have afterwards tells us we are selecting the right people."

Jürgen Knoblich
EMBO Long-Term Fellow
1994 – 1996
EMBO Young Investigator 2001
EMBO Member since 2002
Chair of EMBO Fellowship
Committee since 2010
Senior Scientist &
Deputy Scientific Director
Institute of Molecular
Biotechnology of the
Austrian Academy of Sciences
(IMBA)
Vienna, Austria



Mohammed Bentires-Alj
EMBO Long-Term Fellow
2002 – 2003
Junior Group Leader
Friedrich Miescher Institute for
Biomedical Research
Basel, Switzerland

EMBO Fellows

What it means to be an EMBO Fellow My EMBO Fellowship was extremely helpful in getting me started. The application process helped me focus on what I wanted to research as a postdoc and where. During my PhD I had worked on different types of cancer but I decided to specialize on breast cancer. Being part of the EMBO Fellows' network, I benefited from training and attending meetings with top speakers. Most important were the contacts I made in those years, some of whom – such as those I made during the Fellows' Meeting held at Rockefeller University in 2004 – played a critical role when I started my own lab at the FMI.

About my research Our goal is to better understand breast cancer so as to better treat it. We aim to identify and validate novel targets for therapy. New therapies are likely to result from a more thorough understanding of the differentiation state of the cells from which the cancer originates; the genetic and epigenetic alterations that transform these cells; the metabolism of cancer cells, and their interactions with the stroma. We focus on the roles of protein-tyrosine phosphatases in breast development and cancer and on the roles of PI3K pathway alterations in breast cancer.

EMBO Young Investigators

About my research

Our laboratory studies how chromatin regulation and transcription factor networks affect haematopoiesis and immune responses. We want to understand the principles of the genome regulatory sequence and how it functions to shape development and homeostasis in our body, in both normal physiology and disease.

What it means to be an EMBO Young Investigator

Each laboratory is like an island. Only if we connect these islands by networking or interdisciplinary work, will we be able to boost our research. We are running into problems on a weekly and sometimes even daily basis. Being part of the EMBO network makes you feel like you are not alone.

Ido Amit EMBO Young Investigator 2013
Principal Investigator, Weizmann Institute of Science in Rehovot, Israel

EMBO Installation Grantees

About my research

My research looks at the free energy landscape of proteins from the perspective of folding and mechanical unfolding. Recently, I have been using physical, chemical and mathematical methods to understand new types of protein topology, which involve knots.

What it means to be an EMBO Installation Grantee

The support from the EMBO Young Investigator Programme is extremely helpful to attract students, acquire laboratory resources, and for collaboration with experimental laboratories.

EMBO Installation Grantee 2013 **Joanna Sulkowska**
Assistant Professor, University of Warsaw, Poland

EMBO Young Investigators

About my research

In 2009, I established my own research and teaching group in the Groningen Biomolecular Sciences and Biotechnology Institute at the University of Groningen. My laboratory studies chromosome segregation, mechanisms of antibiotic tolerance, and noise in gene expression in *Streptococcus pneumoniae.*

What it means to be an EMBO Young Investigator

To be part of a network with some of the best scientists in Europe is fantastic and opens up new doors for collaborations and funding possibilities. The recognition and exposure motivates new students and postdoctoral researchers to join my team. The additional funding and access to EMBO and EMBL courses and facilities are very useful.

Jan-Willem Veening EMBO Young Investigator 2013
Associate Professor, University of Groningen, Netherlands

we stimulate
scientific exchange

EMBO Courses & Workshops

>10,000 scientists participate each year

>80 training and exchange events each year

The EMBO Meeting

>1,000 researchers participate

>750 scientists present posters

>100 leading researchers speak

EMBO facilitates scientific exchange

Courses, workshops and conferences disseminate the latest research and offer training in cutting-edge techniques to maintain high standards of excellence in research practice.

Courses & Workshops

facilitating scientific training and exchange

Biannual selection by a committee of EMBO Members ensures the consistent high quality and novelty of EMBO-funded courses, workshops, symposia and conference series. The commitment of the scientific organizers guarantees the long-term success of the programme to inform and train researchers at all career stages.

With over 80 meetings attracting more than 10,000 participants every year, EMBO offers the largest number of scientific training events in Europe.

Global Activities

attracting scientists to Europe

Promoting Europe as an attractive research location to foreign researchers, *EMBO Global Activities* increase awareness of options for research and training in the life sciences in Europe and strengthens ties with scientific communities worldwide.

The EMBO Meeting

advancing the life sciences

An annual European forum for scientific exchange, *The EMBO Meeting* exposes participants to new perspectives on topics covering the entire range of the life sciences. It encourages them to look beyond the boundaries of their own fields and fosters cross-disciplinary approaches to research.

Hans Clevers
EMBO Member
since 1999

At *The EMBO Meeting 2013* in Amsterdam, Hans Clevers, Professor of Molecular Genetics at the Hubrecht Institute, The Netherlands, and President of the Royal Netherlands Academy of Arts and Sciences, gave a keynote lecture on Wnt signalling, stem cells and cancer.

Raising standards
through training, exchange and publication

Linda Partridge
EMBO Member
since 2005

EMBO Member, Linda Partridge gave a keynote lecture at *The EMBO Meeting 2012* in Nice entitled *Nutrient-sensing pathways and ageing.*

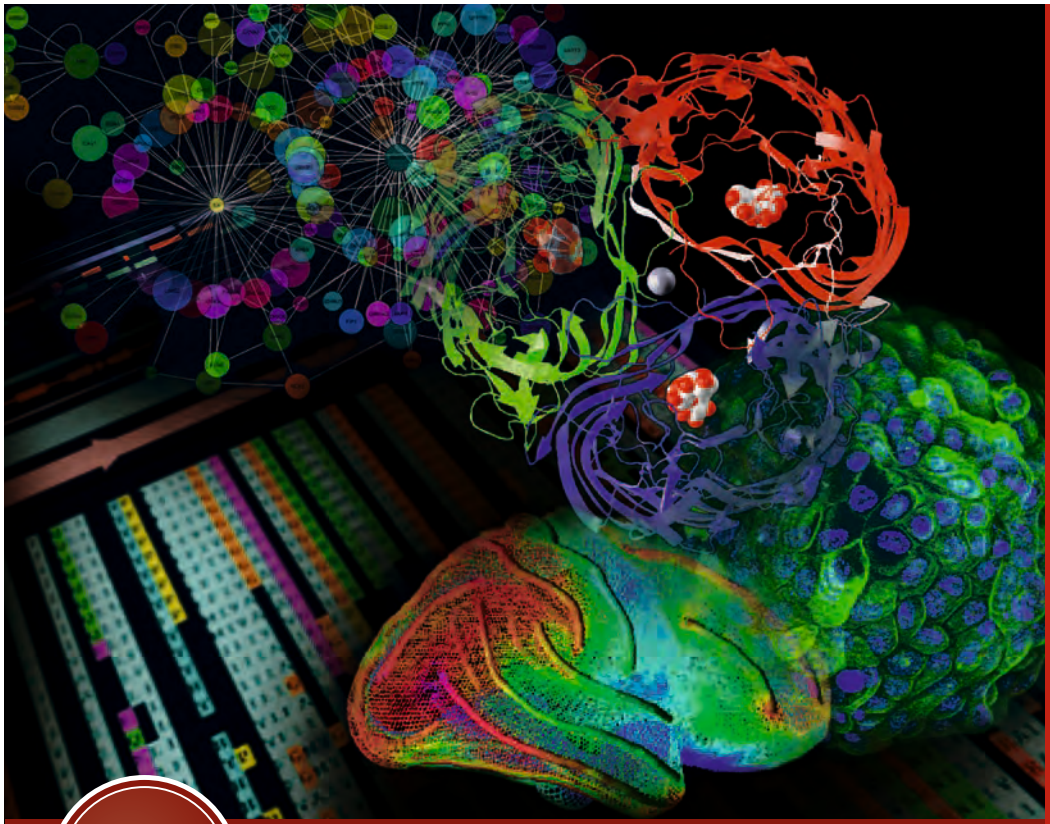
The EMBO Meeting advances the life sciences each year by bringing together leading researchers from around the world to venues in Europe, where participating scientists can learn from them and exchange ideas for their future research.

Vijayalakshmi Ravindranath
Chairperson
Centre for Neuroscience
Indian Institute of Science
Bangalore, India

Vijayalakshmi Ravindranath was one of the speakers at the *Science in India Session* at *The EMBO Meeting* 2012 in Nice entitled *Life Science opportunities in India.*

Life Science Research in India

Scientists interested in research in India attended the *Science in India* satellite event during *The EMBO Meeting* 2012 in Nice. They exchanged ideas about how to advance their scientific careers in Europe with speakers including Athulaprabha Murthi, Director of IndiaBioscience, Vidita Vaidya, Associate Professor at the Tata Institute of Fundamental Research, Vijayalakshmi Ravindranath, Chairperson of the Centre for Neuroscience at the Indian Institute of Science.

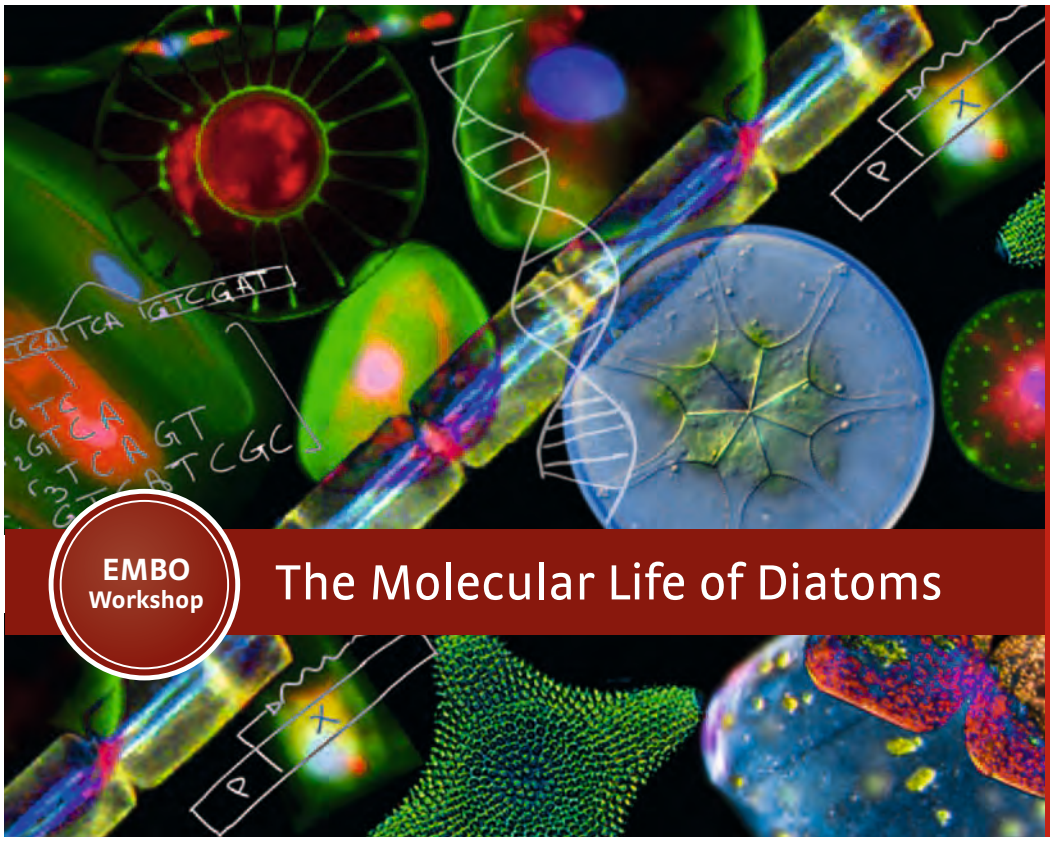


EMBO Conference

Visualizing Biological Data

Visualizing Biological Data

A primary way that biologists interact with their data is through visualization systems, ranging from simple, stand-alone methods to complex, integrated software packages. The EMBO Conference on *Visualizing Biological Data* brought together, for the first time, researchers developing and using visualization systems across a wide range of biological disciplines.



EMBO Workshop

The Molecular Life of Diatoms

The Molecular Life of Diatoms

Rapid progress in genomics and molecular genetics, together with the novel resources derived from modern oceanography and materials science, are providing new opportunities to understand diatom biology and ecology and novel ways to use them for biofuels and nanotechnology. The EMBO Workshop on *The Molecular Life of Diatoms* brought together researchers interested in exploring new directions to fully harness the enormous potential of these fascinating organisms.

we publish

EMBOpress

EMBO Press is an editorially independent publishing platform for the development of EMBO scientific publications.

EMBO Press publishes four journals that include papers describing significant discoveries from the global bioscience community as well as authoritative and accessible comments and reviews.

EMBO Press embodies the policies and practices of the four EMBO scientific publications that serve the global life science community.

THE EMBO JOURNAL

The EMBO Journal, which was established in 1982, publishes papers describing original research of broad general interest in molecular and cell biology.

EMBO *reports*

EMBO reports publishes short-format papers that communicate a single major finding in any area of molecular biology. Broadly accessible reviews are complemented by a "Science and Society" section that explores how science is shaping the world.

molecular systems biology

Molecular Systems Biology publishes open access papers describing original research in the multidisciplinary areas of systems biology and synthetic biology, focussing on the analysis, integration and modeling of molecular and cellular processes.

EMBO Molecular Medicine

EMBO Molecular Medicine is an open access journal that publishes research papers at the interface between clinical research and molecular cell biology.

EMBO Press stands for reliability, innovation and best practice

One of the main goals of EMBO Press is to transform research articles into enriched and accessible records of research data that open up new possibilities for discovery and sharing.

Reliable research

All research papers published in EMBO Press journals have passed a selective and transparent editorial peer-review process. Cooperation between subject experts, academic advisors and dedicated editors ensures a rapid and informed publishing process.

'Peer-review in less than 1 month;
96% of revised papers are accepted;
average revision time 2½ months.'

2012 data, *The EMBO Journal*

Article innovation

EMBO Press makes it easier for scientists to discover, read, and re-use research through inclusion of curated source data, customized article views and synopses enhanced by visual summaries. Supplementary Information is replaced online by Expanded View sections that are integrated within the body of the article, improving the reading experience and ensuring that these data are an integral part of the study.

'In more than a third of the papers, authors decide to include the source data underlying figures.'

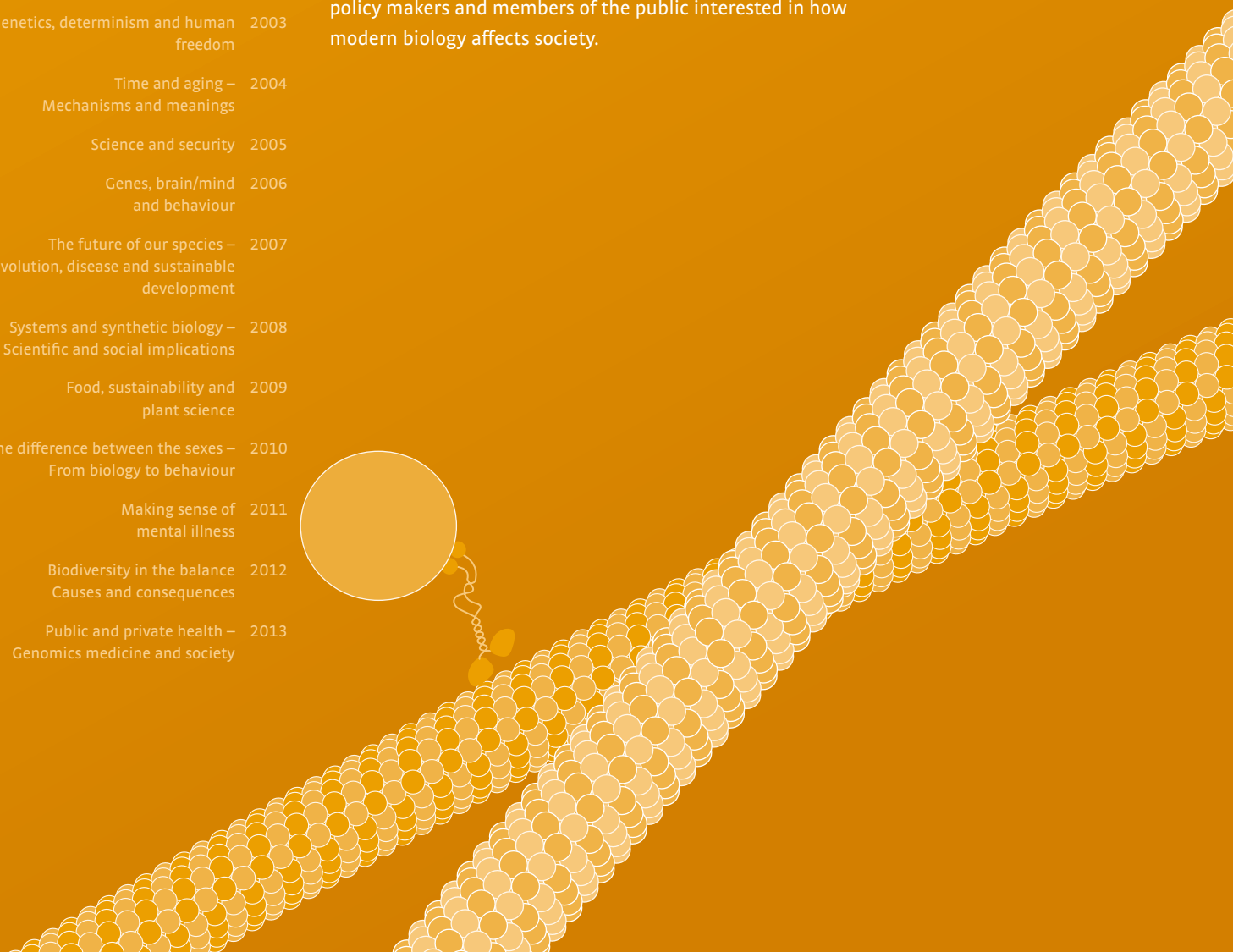
Best practice

EMBO Press is founded on the principle that scientific publishing should be more transparent, fair, and ethical and must support a reliable, reproducible literature. EMBO Press also encourages the wider adoption of this principle by others in the community to benefit scientists the world over.

we advance

Each year, EMBO joins with EMBL to host the Science and Society conference series. The aim of these joint meetings is to promote mutual interest, understanding, and dialogue between biologists, specialists from related disciplines, policy makers and members of the public interested in how modern biology affects society.

Developing a new dialogue	2000
From genomes to cures	2001
Infectious diseases: Challenges, threats and responsibilities	2002
Genetics, determinism and human freedom	2003
Time and aging – Mechanisms and meanings	2004
Science and security	2005
Genes, brain/mind and behaviour	2006
The future of our species – Evolution, disease and sustainable development	2007
Systems and synthetic biology – Scientific and social implications	2008
Food, sustainability and plant science	2009
The difference between the sexes – From biology to behaviour	2010
Making sense of mental illness	2011
Biodiversity in the balance Causes and consequences	2012
Public and private health – Genomics medicine and society	2013



EMBO advances policies

We help to shape science and research policy for a world-class European research environment.

The EMBO Science Policy Programme, established in 2011, examines concerns emerging from advances in scientific research. The Programme provides informed analyses to policymakers and other policy leaders, research administrators, and scientists for use in their decision-making processes. We conduct our work through policy research, engaging EMBO Members, the international scientific community and other experts.

The major areas of interest of The EMBO Science Policy Programme are the responsible conduct of research; biotechnology and genomic technologies; and scientific publishing with respect to open access, the usability of data underlying publications, and the reproducibility of the scientific literature.

about this brochure

Advances in the life sciences are made by individuals – researchers committed to scientific excellence.

In this brochure we have chosen to highlight a few of the thousands of individual researchers who make up our community and participate in our programmes, activities and publications. From these few, we hope you capture some of their passion and enthusiasm for the important research they do.

For more detail, please visit **www.embo.org.** If you have specific queries about any of our programmes, activities or publications, our email address is **embo@embo.org.**

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