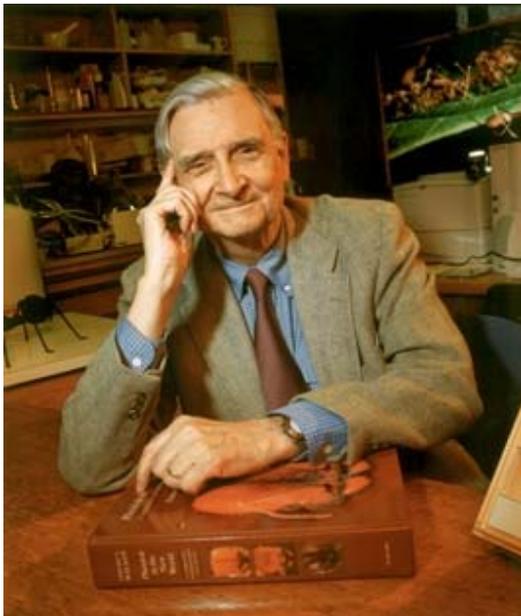


## Scientist in Residence

### Edward O. Wilson

Pellegrino University Research Professor, Emeritus, at Harvard University, USA

Edward O. Wilson's career began with the study of the social behaviour of ant populations. He demonstrated that certain aspects of ant behaviour could be triggered by chemical signals, showing that their behaviour was programmed, not learned. He applied these ideas to study the behaviour of other animals, including man, concluding that our genes and our environment intertwine to make us what we are. He has been lauded as one of the founders of the modern environmental movement and is a passionate defender of the need for our human society to seek out means of sustainable interaction with Planet Earth, the only home we have. He has long argued that as human beings multiply and use the Earth's resources to fuel the hedonistic lifestyle practised by the Industrialised countries, the planet's ecosystem is increasingly threatened. Professor Wilson's recent publications make a compelling case that mankind must act rapidly to preserve the Earth's biodiversity for our descendents. Credited with first bringing the concept of biodiversity to mass public attention in 1988, almost 20 years later he continues to encourage society to respond with a greater sense of urgency to the irrefutable evidence that the diversity of life on Earth is in rapid decline. Professor Wilson's many contributions to science have received international recognition. He has received 27 honorary doctoral degrees and more than 70 awards, including the U.S medal of Science (1976), The German Terrestrial Ecology Prize (1987), the French Prix du Institut de la Vie (1990), the Crafoord Prize from the Royal Swedish Academy of Sciences (1990), the Japanese International Prize for Biology (1993), the Franklin Medal of the American Philosophical Society (1999), and the King Faisal International Prize for Science (2000). His conservation work has also been recognised through the award of the Gold medal of the World Wide Fund for Nature and the Audubon Medal of the Audubon Society. His books have also been widely acclaimed and he has twice been awarded the Pulitzer Prize. In 2006 he launched the E.O. Wilson Biodiversity Foundation, dedicated to preserving biological diversity in the living environment by encouraging the invention and implementation of business and educational strategies in the service of conservation.



## PRINCIPAL SPEAKERS AND WORKSHOP LEADERS

### **Paul Boghossian**

Silver Professor of Philosophy and Provost Fellow at New York University, USA

Paul Boghossian held the Chair of Philosophy at NYU from 1994 to 2004. His research interests are in the philosophy of mind, the philosophy of language and epistemology. He is the author of *Fear of Knowledge: Against Relativism and Constructivism* and the forthcoming *Content and Justification: Philosophical Essays*. He has written numerous articles on topics that include; color, rule-following, naturalism, self-knowledge, a priori knowledge, analytic truth, realism, relativism, the aesthetics of music and the concept of genocide. He has held research fellowships from several institutions in USA, UK and Australia and has been a Visitor at the Institute for Advanced Study in Princeton.

### **Veronica Boix-Mansilla**

Principal Investigator at Project Zero, Harvard Graduate School of Education, USA

Her research examines cognitive, social and epistemic dimensions of interdisciplinary work. She uses the lenses of disciplines such as history, science, or the arts to explore how human beings enhance their understanding of complex problems by combining different disciplinary approaches in novel ways. She is trying to develop practical tools to design and monitor quality of interdisciplinary education and learning.

### **Jean-Pierre Changeux**

Professor Emeritus at the Collège de France and the Department of Neurosciences, Pasteur Institute, Paris, France

Jean-Pierre Changeux is a founder of modern neurobiology. In an era of specialization, he has not only disregarded the general perception of insurmountable interdisciplinary boundaries, but has pioneered the laying of bridges for others to use. A principal speaker at WKD 2006, he is now a member of the WKD Scientific Board.

### **Michel Claessens**

Deputy Head of the Communication Unit - European Commission - DG Research, Brussels, Belgium

Michel Claessens has a PhD in physical chemistry. After several jobs in the biotechnology and in the chemical industry, he joined the European Commission in 1994. He is currently deputy Head of the Communication Unit in the Research Directorate-General. He is also the editor-in-chief of the research\*eu magazine of the European Commission.

A scientific journalist and writer, Michel Claessens has published 250 articles and 6 books on several aspects of modern science and technology. He is also a member of the scientific committee of the international PCST network (Publication Communication of Science and Technology) and professor of science communication at the Free University of Brussels.

### **Karen S. Cook**

Ray Lyman Wilbur Professor of Sociology, Stanford University, USA

Karen Cook is the current chair of the Department of Sociology, Stanford University and the Director of the Institute for Research in the Social Sciences (IRiSS). Her current research focuses on issues of trust in social relations and networks. She is also working on projects related to social justice, power-dependence relations and social exchange theory, in addition to collaborative research on physician-patient trust. She was a fellow at the Center for Advanced Study in the Behavioral Sciences (1998-99) and was elected to the American Academy of Arts and Sciences in 1996.

### **Mauro Dell'Ambrogio**

State Secretary for Education and Research, Switzerland

Mauro Dell'Ambrogio has a Doctorate in Law from the University of Zurich. Between 1979 and 1999 he held public offices in the Swiss canton of Ticino: Judge, Chief of the Cantonal Police, Secretary-General for Education and Culture, project manager for the creation of the University of Lugano (USI), and Secretary-General of the USI. In 2003 he became Director of the University of Applied Sciences of Southern Switzerland (SUPSI). He has also been a past mayor of Giubiasco ; a member of the Ticino cantonal parliament ; chairman of the Ticino electricity works. Mauro Dell'Ambrogio took up the post of State Secretary for Education and Research in January 2008.

### **Ruth Dreifuss**

Former Federal Councillor (i.e. Member of the Swiss Government) and former President of the Swiss Confederation, Switzerland

After having worked as a civil servant in the field of development cooperation and as a leader of the Swiss Labour Union, she was elected by the Parliament one of the seven members of the Swiss Government. From early 1993 to the end of 2002, she acted as Minister of domestic affairs, including public health, research, higher education, social security and other political fields. She is now active in many national and international organizations. She chaired the Commission on intellectual property rights, innovation and public health of the WHO which reported in Spring 2006 as well as a recent commission for the Government of Geneva, which proposed a new regulatory framework for the cantonal University .

### **Florence Devouard**

Chair of the Board of Trustees of the Wikimedia Foundation

Florence Devouard has served as an elected representative to the Board of trustees of the Wikimedia Foundation since June 2004. She joined the Wikipedia adventure in February 2002 and is known as a contributor to its pages under the pseudonym Anthere. She succeeded Jimmy Wales as the Foundation's chair and held that function between 2006 and 2008. She holds masters degrees in Agricultural Sciences and in Genetic and Biotechnologies and has worked in public research, first in flower plant genetic improvement, and then in the area of microbiology, studying the feasibility of polluted soil bioremediation. She has been employed in the private sector, to conceive decision-making tools for sustainable agriculture. She is now a consultant in Internet Communication Strategy.

### **Richard R Ernst**

Professor Emeritus of the Swiss Federal Institute of Technology Zürich, Switzerland

After having received his PhD in Technical Sciences from the Swiss Federal Institute of Technology in Zurich, Richard R Ernst worked in the private sector, carrying out research for Varian Associates of Palo Alto, California. He returned to the ETH in 1968 and became Full Professor in 1976. He received the Nobel Prize in Chemistry in 1991, for contributions to the development of high resolution nuclear magnetic resonance (NMR) spectroscopy.

### **Ulrike Felt**

Professor of Social Studies of Science, University of Vienna, Austria

In 1983 Ulrike Felt obtained a Ph.D in theoretical physics at the University of Vienna. She then worked with an interdisciplinary research team of science historians at the Center for High Energy Physics (CERN) studying the interplay between social, political and scientific aspects of Europe's first large international research institution. Since her return to Vienna in 1988 and a post at the Institute for the Philosophy and Social Studies of Science her research has pursued the broad line of issues in the realm of science communication, public engagement with technoscience, and the dynamics of knowledge production and dissemination. She edits the international, peer reviewed Journal, Science Technology and Human values and has served as an expert advisor to the European Research Advisory Board (EURAB).

### **Raghavendra Gadagkar**

Professor and JC Bose National Fellow at the Centre for Ecological Sciences of the Indian Institute of Science, Bangalore, India

Raghavendra Gadagkar is also the founding Chairman of the Centre for Contemporary Studies, Indian Institute of Science, Bangalore—a bold new experiment to integrate the natural sciences with the social sciences, humanities, arts and literature and create a unified perspective on the production of knowledge. He is an Honorary Professor at the Jawaharlal Nehru Centre for Advanced Scientific Research, a Non-Resident Permanent Fellow of the Wissenschaftskolleg zu Berlin and a Foreign Associate of the American National Academy of Sciences

### **Noreen Golfman**

President of the Executive Committee, Canadian Federation for Humanities and Social Sciences, Canada  
Noreen Golfman is Professor of English and Dean of graduate studies at the Memorial University of Newfoundland. Her research interests include "Film Studies" and "Canadian Literature" and she is

currently involved in a project entitled “Commercializing the North” a cataloguing and critical analysis of industry films on the Canadian North

### **Georges Haddad**

Director of the Division of Higher Education, UNESCO

Georges Haddad graduated from the École Normale Supérieure and holds a doctorate in mathematical sciences from the University of Paris. He has been a Professor at the University of Nice and the University of Paris I Panthéon-Sorbonne. He was president of the latter from 1989 to 1994. He participated in the World Conference on Higher Education as chairman of the Steering Committee, from 1994 to 1999, and was also a member of the Task Force on Higher Education in Developing Countries (World Bank-UNESCO) from 1997 to 2000. He is the author of many publications in the field of applied mathematics. He founded the Marin Mersenne Laboratory for mathematics, computer science and interdisciplinary applications. He has also written a number of articles on education, higher education and research. He was appointed director of UNESCO's Division of Higher Education in April 2004.

### **Wendy Hall**

Professor of Computer Science at the University of Southampton, UK

Among many leadership roles, she is currently Senior Vice President of the Royal Academy of Engineering, a member of the UK Prime Minister's Council for Science and Technology, a founder member of the Scientific Council of the European Research Council, and Vice-President of the Association for Computing Machinery. Professor Hall is also founding director of the Web Science Research Initiative, launched in 2006. The influence of her work in multimedia and hypermedia has been significant in many areas, including the development of the Semantic Web, and the interface between the life sciences and physical sciences.

### **John Harris**

Lord David Alliance Professor of Bioethics, and Research Director of the Institute of Science, Ethics and Innovation, School of Law, University of Manchester, UK.

John Harris is the joint Editor-in-Chief of *The journal of medical ethics*. He is a member of the United Kingdom Human Genetics Commission and the Medical Ethics Committee of the British Medical Association. His recent books include: *Clones, genes and immortality* (1998); *Bioethics* (editor, 2001); *A companion to genetics: philosophy and the genetic revolution* (editor, 2002); and *On cloning*, (2004). His latest book *Enhancing evolution* was published by Princeton University Press in 2007.

### **Julia Higgins,**

Principal of the Faculty of Engineering, Imperial College, London; UK

Professor Dame Julia Higgins was WKD Scientist in Residence during the 2006 symposium. A former Vice-President and Foreign Secretary of the Royal Society of Great Britain, she has pioneered exploration of the responsibilities of being a scientist in the modern world and been instrumental in bringing consideration of gender issues in European science to the political forefront. Julia Higgins has received numerous distinctions in recognition of her contributions as a public ambassador for science, She became a Dame of the British Empire in 2002, and a Chevalier de la Légion d'Honneur in 2003.

### **Jean-Pierre Hocké**

Former UN High Commissioner for Refugees, Switzerland

Jean-Pierre Hocké joined in 1968 the International Committee of the Red Cross – ICRC. After several field assignments he became ICRC's Director of Operations for 12 years. From 1985 to 1989 he headed UNHCR which at the time was protecting and assisting 17 mio refugees worldwide. Between 1996 and 2003 he chaired in Bosnia-Herzegovina the Independent Commission for Real Property Claims (CRPC) set up by the Dayton Peace Agreement. Under his chairmanship CRPC restore property rights of over a million bosnian refugees and displaced people who had been deprived of them during the war.

### **Reiko Kuroda**

Professor, Graduate School of Arts and Sciences, University of Tokyo, Japan

Reiko Kuroda is an expert in the biomolecular sciences and in the study of structure and function of informational molecules. She also teaches interdisciplinary courses at undergraduate and graduate levels

on the methods and modes of inference and deductive reasoning used in her specialist domain of biophysical chemistry.

### **Kiyoshi Kurokawa**

Professor, National Graduate Institute for Policy Studies (GRIPS), Special Advisor to the Prime Minister and the Cabinet and WHO Commissioner, Chair of Health Policy Institute of Japan.

Kiyoshi Kurokawa served as the President of the Science Council of Japan and as a member of the Committee for the Science and Technology Policy of the Cabinet Office of the Government (2002-2006); He was Professor of Medicine, at UCLA (1979-1984) and the University of Tokyo (1989-2006) ; served as Dean and Professor at Tokai University between 1996-2002. Professor Kurokawa is an elected member of the Institute of Medicine of the US National Academies, the Association of American Physicians, and many other leading professional societies. He is the Founding Chairman of the Health Policy Institute of Japan.

### **André Langaney**

Professor Emeritus, Département d'anthropologie et d'écologie, University of Genève, Switzerland and Director of the laboratoire d'anthropologie du Musée de l'Homme, Paris, France

André Langaney is a geneticist and specialist in the field of human evolution and population genetics. Throughout his long career in research he has also been engaged in «communication» activities, organising numerous exhibitions, notably at the Museum of Mankind in Paris as well as organising conferences, films and documentaries destined to inform the public interest. He has written on diverse subjects for the French popular press and published a number of books on issues connected to how the human « race » perceives itself.

### **Pierre Lévy**

Canada Research Chair in Collective Intelligence, University of Ottawa, Canada

Pierre Lévy is a philosopher who has devoted his professional life to the understanding of the cultural and cognitive impacts of digital technologies and to the promotion of their best social uses. He is a world-leading thinker on “cyberculture”. His work has been focused around the concept of collective intelligence and knowledge-based societies, and more recently, on the development of an Information Economy Meta Language (IEMML) based on semiotic concepts. Pierre Lévy has published several books among them *Qu'est-ce que le virtuel ?* (Becoming Virtual) or *Cyberculture*.

### **Henry Markram**

Director of the Center for Neurosciences & Technology, EPFL, Switzerland

He obtained his Ph.D. from the Weizmann Institute of Science where he discovered a link between acetylcholine and memory mechanisms. The institute he heads is developing state of art technologies to obtain a detailed blueprint of the human neocortical column. Markram launched the « Blue Brain Project » with the support of IBM in 2005 to rebuild and simulate the neocortical column and is now expanding the BBP to simulate the whole brain of mammals. He has received numerous academic awards and has published over 75 papers.

### **Karuvannur P Mohanan**

Professor, English Language & Literature, National University, Singapore,

Karuvannur Mohanan is a theoretical linguist specialising in the phonology, morphology syntax and semantics of different language systems. His specialist research interests have nourished a broader interest in the epistemology of scientific inquiry, the comparative epistemology of academic disciplines, critical thinking, and education and led to his participation at the WKD 2006 symposium.

### **Christiane Nüsslein-Volhard**

Director of the Max Planck Institute for Developmental Biology in Tübingen, Germany

Christiane Nüsslein-Volhard received the Nobel Prize for Physiology or Medicine in 1995 for research on the genetic control of embryonic development. She has also been honored with the Albert Lasker Award for Basic Medical Research and the Gottfried Wilhelm Leibniz Prize. She became a member of the

Nationaler Ethikrat (National Ethics Council of Germany) for the ethical assessment of new developments in the life sciences and their influence on the individual and society. Professor Nüsslein-Volhard is a strong advocate for women's opportunities in science and has initiated the *Foundation for the promotion of science and research*, which supports talented young women with children.

### **Koji Omi**

Founder and Chairman, STS *forum*; Member of the Japanese House of Representatives; Former Minister of Finance, Japan

Among a number of prominent posts, Mr. Omi has been Minister of State for Economic Planning (1997–1998), Minister of State for Okinawa and Northern Territories Affairs and for Science and Technology Policy (2001–2002) and Minister of Finance (2006–2007). A major figure in Japanese science and technology policy, he founded the Science and Technology in Society (STS) forum, which meets annually in Kyoto, with the aim of building a worldwide network among scientists, policy makers and business people. He is a graduate of Hitotsubashi University (Japan).

### **Hubert Reeves**

Directeur de recherches at the Centre National de la Recherche Scientifique, Paris, France

Hubert Reeves is an astrophysicist and popularizer of science. He has been a Director of Research at the Centre National de la Recherche Scientifique since 1965 and currently resides in France where he often speaks on television promoting science. He is also Associate Professor at the University of Montreal, and President of the *Ligue ROC pour la Préservation de la faune sauvage*. He has written several publicly acclaimed books and, among the many honours that have been bestowed on him, he is an Officer of the National Order of Quebec (1994) and a recipient of the Albert Einstein Medal (2001).

### **John Sulston**

Chairman of the Institute of Science, Ethics and Innovation, Manchester University, UK

Professor Sir John Sulston received the Nobel prize for Physiology or Medicine in 2002, for his role in elucidating the development and programmed cell death of a small but complex animal called *C.elegans*. The insights for which he is widely known were borne of his decades spent exploring uncharted frontiers between biology and chemistry. Sulston went on to lead his country's contribution to the Human Genome Project and to defend the principle of universal free access to the information it yielded. He has also been an influential campaigner for open-access publishing of scientific information and continues to pioneer serious exploration of the issues of social and global justice that are raised by scientific and technological advance.

### **Mathias Thoenig**

Professor of Economics, University of Geneva, Switzerland

Mathias Thoenig studied mathematics and economics before completing a Ph.d in Economics at the Sorbonne in Paris. He has published widely on macroeconomic analyses of crosscutting issues such as international trade, the governance of knowledge distribution and the macroeconomic effects of competition and conflict.

### **Frans de Waal**

Charles Howard Candler professor of Primate Behavior, Emory University, Atlanta, USA

Frans de Waal is the director of the Living Links Center at the Yerkes National Primate Research Center and is the author of numerous books, including "Chimpanzee Politics" and "Our Inner Ape". His research focuses on understanding primate social behavior, including conflict resolution, cooperation, inequity aversion, and food-sharing. He was elected to the Royal Netherlands Academy of Arts and Sciences in 1993 and elected a Foreign Associate of the United States National Academy of Sciences in 2004. In 2007, Time magazine considered him to be on its list of the 100 Most Influential People in The World.

### **Geoffrey West**

President and Distinguished Professor of the Santa Fe Institute, USA

As Senior Fellow and leader of the high energy physics group at Los Alamos National Laboratory, Geoffrey West's primary interests have been in fundamental questions concerning the elementary particles, their interactions and cosmological implications. In the mid-1990s, his focus shifted from particle

to biological physics, and to studying the most complex of all systems: life. Since then, he has done major work at the confluence of biology and physics, including seminal work on biological scaling. His contributions have provided a framework for quantitative analyses of fundamental issues in biology. Among his current interests is the extension of these ideas to generate quantitative descriptions of the structure and dynamics of social organizations such as cities and corporations, and the relationships between efficiency and innovation.

**Hiroyuki Yoshikawa**

President, National Institute of Advanced Industrial Science and Technology, (AIST) Japan

Hiroyuki Yoshikawa is a former President of the University of Tokyo. His capacities as scientist and modern humanist earned him election to the Presidencies of the Science Council of Japan (1997-2003) and the International Council for Science (1999-2002), tasks which he carried out with distinction. As president of AIST, he continues to champion the principle of scientific responsibility towards humankind as a whole.