

Opening and Keynote

Chair 1: Karin Metzloff

Executive Director
European Plant Science Organisation, EPSO
Karin.Metzloff@epsomail.org
www.epsoweb.org



Career

Executive Director, European Plant Science Organisation, since 2000
Research Projects Manager, John Innes Centre Norwich, UK, 1998-1999
Post-doctoral Research Scientist at the JICNorwich, UK, 1993-1998
Scientific Assistant at the Federal Health Office, Institute for Veterinary Medicine, Jena, Germany, 1992-1993
Post-doctoral Scientist at the Martin-Luther-University Halle, Germany, 1991-1992
PhD in plant genetics and molecular biology, Martin-Luther-University Halle, Germany, 1991

Activities

Coordinator European Technology Platform "Plants for the Future" (2004 - 2009)
Executive Committee & Steering Council, European Technology Platform "Plants for the Future" (since 2006)
Representative of EPSO in the Initiative for Science in Europe, ISE (since 2004)
Executive Committee, European Life Science Forum, ELSF (since 2001)
Deputy-representative of EPSO in the Global Plant Council, GPC (since 2009)
EC Expert Group on European Technology Platforms (2009)

Research interests

Developmental biology, plant genetics and molecular biology

Chair 2: Kirsi-Marja Oksman-Caldentey

Chief Research Scientist and Head of Plant Biotechnology Research
VTT Technical Research Centre of Finland
Espoo, FI
Tel: +358 20 722 44 59
kirsi-marja.oksman@vtt.fi



Career

Chief Research Scientist and Head of Plant Biotechnology Research VTT Technical Research Centre of Finland, Espoo / FI (since 1998)
Vice-Technology Manager at VTT (since 2006)
Pharmaceutical industry: Sandoz Ltd and Ciba-Geigy Ltd (1980-1985)
Academia: University of Helsinki (1986-1998)
MSc (1980) and PhD (1988) in pharmacy at the University of Helsinki

Honours

Activities

Board member, European Plant Science Organisation (2003 – 2008)

Research interests

Understanding the secondary metabolism in plants and cell cultures at systems level
Current focus on bioactive plant constituents, genetic engineering of medicinal plants and utilizing plant cells as efficient production hosts for small molecules and recombinant therapeutic proteins
In addition her group is involved in developing new biorefinery concepts e.g. using microalgae as a source of biofuel.

Invited speaker 1: Leena Mannonen

To come

Invited speaker 2: Henna Virkunen, tbc

Keynote speaker: Jonathan Jones

Project Leader

Sainsbury Laboratory, UK

jonathan.jones@sainsbury-laboratory.ac.uk

www.tsl.ac.uk/profile/jonathan-jones.asp

Career

Jonathan Jones gained his PhD in Cambridge at the Plant Breeding Institute in 1980, and then spent 2 years as a post-doctoral fellow at Harvard with Fred Ausubel working on symbiotic nitrogen fixation. From 1983-1988 Jonathan Jones worked as a Research Scientist with AGS, an agbiotech startup company in Oakland, California, before moving to the UK where he was one of the first recruits at the Sainsbury Laboratory in 1988. He was among the first to clone and study plant disease resistance genes.



Honours

Elected a Professor at the University of East Anglia in 1997

Member of EMBO since 1998

Elected Fellow of the Royal Society in 2003

Activities

He is a highly cited plant researcher [<http://in-cites.com/top/2007/first07-pla.html>].

He is a cofounder of Mendel Biotechnology (www.mendelbio.com) and (with Cathie Martin) of Norfolk Plant Sciences, established to combine improved crop disease resistance with consumer benefits.

Board member, European Plant Science Organisation (2007 – 2012)

He was co-author of the recent Royal Society report on Food Security “Reaping the benefits; science and the sustainable intensification of global agriculture” (<http://royalsociety.org/document.asp?tip=0&id=8825>)

Research Interest

Using molecular and genetic approaches to study disease resistance in plants

Chairs: **Wilhelm Gruitsem & Karin Metzloff**

Invited speaker 1: Wilhelm Gruitsem

Professor of Plant Biotechnology
Institute of Plant Sciences, ETH Zurich, CH
wgruisse@ethz.ch
www.pb.ethz.ch/people/wgruisse



Career

Full Professor of Plant Biotechnology, Institute of Plant Sciences, ETH Zurich since 2000
Chair of the Department of Plant and Microbial Biology at UC Berkeley (1993 – 1998)
Director collaborative program UCD Department and Novartis/San Diego (since 1998)
Assistant professor (1983), full professor (since 1990), University of California, Berkeley, USA

Postdoctoral fellow for research, Department of Molecular, Cellular and Developmental Biology, University of Colorado in Boulder, USA

Research associate, Institute of Physiological Chemistry, University of Marburg (2 years)

Ph.D. (1979) and studies of biology and chemistry, Institute of Genetics, University of Bonn, DE

Honours

UC Berkeley Chancellor's Research Initiative Award, 1996

Elected Fellow, American Association for the Advancement of Sciences, 1998

Chancellor's Professorship, UC Berkeley, 1999

4 awards for the textbook "Biochemistry and Molecular Biology of Plants" (in EN, IT, CHI and JAP)

Anniversary Prize 2003 of the Eiselen Foundation Ulm, Germany

Activities

He is elected fellow of the American Association for the Advancement of Sciences, member of learned societies, and on the editorial boards of several professional journals

President (2007-2010) and Board member (2005-2010), European Plant Science Organisation

Research interests

Pathways and molecules involved in plant growth control and regulation of chloroplast development

Invited speaker 2: *Jiayang Li – t.b.c.*

Invited speaker 3: Pascal Bergeret

Head, Innovation Sub-directorate
Ministry of food, agriculture and fisheries, Paris
pascal.bergeret@agriculture.gouv.fr



Career:

Dr in Agricultural economics (Montpellier University) 1986
Project Manager: Himalayan farming systems research project, Nepal (French Ministry of foreign affairs) 1983-1987
Lecturer, Ag Economics, Dschang Agriculture University (Cameroon) 1988-1992
Co-ordinator of Agriculture Research & Development programme , Red River Basin , Vietnam (French Ministry of foreign affairs) 1993-1999
Head of environment and sustainable development cluster, (GRET, a French international development NGO) 2000-2005
Head of research subsection, Ministry of agriculture and fisheries, Paris, 2005-2008

Activities

Farming systems research
Agricultural development policy research
Research & innovation policy, at national and European levels

Research Interests

Sustainable agriculture
Agriculture and climate change
Food and health
Agriculture knowledge and innovation systems

Invited speaker 4: Klaus-Dieter Borchardt

Head of Cabinet
DG Agriculture European Commission
klaus-dieter.borchardt@ec.europa.eu



to come

Invited speaker 5: *EU Commissioner for Research and Innovation– will be appointed later in 2009*

Invited speaker 6: *Journalist – t.b.a.*

Chair and speaker 1: Timothy Hall

Head of Unit
DG Research, European Commission, B1049, Brussels, Belgium
timothy.hall@ec.europa.eu



Career

DG Research, European Commission, BE

- Agriculture, Forestry, Fisheries and Aquaculture Research: Head of Unit (since 2006), Acting Director (2007-2009)
- Health Research: Head of Unit Strategy and Policy (2001-2006), Acting Director (2001-2002)
Head of Unit: Coordination of Life Sciences (1999 – 2000)
Head of Unit: R&TD Cooperation with Developing Countries (1994-1998)
- Coordination of the tropical/sub-tropical agricultural sector of the Science & Technology for Development Programme (1987 - 1992)

DG Agriculture: Administrative, technical and advisory duties in the field of plant health legislation (1985-1987)

DG Research: Management of sub-programme 'Tropical Agriculture', first Science and Technology for Development Programme (1983 – 1984)

Research Scientist, Glasshouse Crops Research Institute, UK (1976-1983)

Research interests

Primary production in agriculture, forestry, fisheries and aquaculture

Invited Speaker 2: Barbara Burlingame

Senior Officer and Leader
Nutrition Requirements and Assessment Group
Food and Agriculture Organization of the United Nations (FAO)
Barbara.Burlingame@fao.org
www.fao.org



Career

Dr Burlingame studied at the University of California, Davis, and obtained her Bachelor of Science degree in Nutrition Science and Environmental Toxicology. She did her postgraduate work in New Zealand at Massey University where she obtained her PhD.

Since 1995 she has been the director of INFOODS, the International Network of Food Data Systems, and since 1998 she has been the editor of the international, peer-reviewed Journal of Food Composition and Analysis, published by Elsevier.

From 1987-1998 she worked for the New Zealand Institute for Crop & Food Research, and since 1998 she has worked for the FAO.

Her areas of responsibility include food composition, human nutrition requirements, dietary and nutritional risk assessments, the cross-cutting initiative on biodiversity for food and nutrition, and provision of scientific nutrition advice to member nations and the Codex Alimentarius Commission.

Honours and activities

Member of the Board of Editors in the Life Sciences

Chairperson of the International Union of Nutritional Sciences Food Data Task Force

Recipient of the New Zealand Royal Society's Science and Technology Medal

Member of several scientific advisory boards

Publications

She has authored many scientific papers and UN publications, and several book chapters and reference books.

Invited Speaker 3: Paula Bramel

Deputy Director General, Research for Development
IITA, Ibadan, Nigeria
CGIAR
p.bramel@cgiar.org



Career

Deputy Director General, Research for Development, International Institute for Tropical Agriculture, IITA

Over 25 years of experience as a researcher, including

- 11 years as Tenured Associate Professor of Agronomy, Kansas State University as sorghum breeder
- 10 years research and management, as Director of Genetic Resources and Principal Scientist, Genetic Resources, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- 5 years as Director then DDG-R4D at IITA

Consultant for agricultural research and development, mainly for CRS, with a focus on recovery of seed systems after disasters

Contributed to more than 60 refereed journal articles, 5 books, and 27 book chapters

MS and PhD supervisor of 16 scientists and conducting numerous teaching/training programs

Research interests - Recent publications

Rupakula Aruna, D. Manohar Rao, S. Sivaramakrishnan, L. Janardhan Reddy, **Paula Bramel** and Hari Upadhyaya. 2009. Efficiency of three DNA markers in revealing genetic variation among wild *Cajanus* species. *Plant Genetic Resources*, Volume 7, Issue 02, pp 113-121

Bhattacharjee, Ranjana, I. S. Khairwal, **Paula J. Bramel** and K. N. Reddy. 2007. Establishment of a pearl millet [*Pennisetum glaucum* (L.) R. Br.] core collection based on geographical distribution and quantitative traits. *Euphytica* 155:35-45.

Kamala V, **P. J. Bramel**, S. Sivaramakrishnan, S. Chandra, Seetha Kannan, S. Harikrishna and D. Manohar Rao. 2006. Genetic and Phenotypic Diversity in Downy-mildew-resistant Sorghum (*Sorghum bicolor* (L.) Moench) Germplasm. *Genetic Resources and Crop Evolution*. 53: 1243-1253

Invited Speaker 4: Jaana Husu-Kallio

Finnish Food Safety Authority Evira
Helsinki, Finland
jaana.husu-kallio@evira.fi www.evira.fi



Career

Director General, Evira, Food Safety, Plant and Animal Health; Animal Welfare (2006-)
Deputy Director General, European Commission, DG Health and Consumer Protection, Health and Consumer Protection (2002-2006)

Director General, Finnish Ministry of Agriculture and Forestry, Department of Food and Health; Animal Health, Animal Welfare, Public Health and Phytosanitary Tasks (1998-2002; Deputy Director General 1994-1998; Senior Veterinary Officer 1992-1994)

Head of Department, National Veterinary Institute of Finland, Department of Bacteriology and Serology; Microbiology; Animal Health, Laboratory Diagnostics and Research (1991-1992; Veterinarian 1986-1989)

Visiting Scientist (donation fund), University of Madison, Wisconsin, USA; Microbiology Research (1988)

Microbiological Expert, Valio Co-operative Dairies, Research and Product Development Center, special duties; Food Safety; Own Control Planning in Dairies (1990-1991)

Various temporary posts as municipal veterinary officer (1982-1986)

Activities

Docent in food microbiology, Helsinki University since 9.6.1993.

Member of the Swedish Royal Academy of Agriculture and Forestry since 19.12.2004.

Doctor of Agricultural Science h.c. in 2008

Several chairmanships on national and international level.

Publications

Scientific Papers on Veterinary Microbiology

Thesis: *Listeria Monocytogenes* Epidemiological Studies

Invited Speaker 5: Thierry de l'Escaille

Chief Executive Officer and Secretary General
The European Landowners' Organization (ELO)

sg@elo.org

www.elo.org



Career

Secretary General, the European Landowners' Organization (1994-)

Since 1994: Administrator of Flanders Forest Superior Council - Vice-President of the Royal Forest Society of Belgium - Vice-President of the Flemish Rural Property - President of the National Association of rural property.

Since 1996: Member of the Agricultural Reform Group (London)

Since 1998: Founder of the European Countryside Movement, President of the Forum Natura 2000, Member of the following Consultative Committees: Forest, Rural Development, Structures, CAP and agri-environment.

Since 1979: Agricultural family enterprise, farming production in Belgium, France, Netherlands including vegetables, sugar beat, potatoes, wheat and flowers.

Activities

Board member of various Ltds and funds (real estate, agriculture and forest, patrimonial, industrial, services)

Coordinator of the Consultative Committee of the ELO

President of Patrimoine Culturel Immobilier

Vice-President and past president of Landelijk Vlaanderen

Member of the Consultative Committee of the French Farmers Society

Ceo Friends of the countryside

Deputy Ceo and treasurer of the RISE Foundation

Chair and speaker 1: Michael W. Bevan

Programme Leader and Acting Director
John Innes Centre, Norwich, UK
michael.bevan@bbsrc.ac.uk



Career

BSc, 1973; MSc (Hons) University of Auckland, NZ 1975, PhD Cantab. 1979
Monsanto Fellow at Washington University in St Louis, MO, USA, 1980-1982
Staff Scientist, Plant Breeding Institute, Cambridge, UK 1983-1988
Head, Molecular Genetics Dept, Plant Breeding Institute/John Innes Centre, 1988-2001
Head, Cell and Developmental Biology Dept, John Innes Centre, 2001- 2008
Programme Leader and Deputy Director, John Innes Centre, Sept 2008-

Honours

Professor of Plant Molecular Biology, University of East Anglia, 1998-present
Rank Prize for Nutrition, 1987
Elected to EMBO 2000
Kumho Award, 2001

Activities

Vice-Chair, European Plant Science Organisation (2001- 2006)
International Science Advisory Board, Genome Canada (2001- present)
Science Advisory Board, Netherlands Genome Programme (2003- present)
Chair Selection Committee EMBO Young Investigator Programme, EMBO Council Member (2005- 2010)
Steering Council, European Technology Platform "Plants for the Future (since 2009)
Organising Committee, EPSO Conferences (2006 & 2008)
Genetics Society Committee, 2002-2005
Ensembl Science Advisory Board, European Bioinformatics Institute
ERA Net National Science Representative, UK (2004-present)

Research Interests

Plant Genomics and Comparative Genomics, Growth Control mechanisms in plants, Integration of Metabolism and Growth Control, Arabidopsis functional genomics.

Invited Speaker 2: Rod Wing

Professor
University of Arizona
rwing@ag.arizona.edu



Career

Ph.D. in Genetics from UC Davis in 1987, BSc in Biochemistry from UC Berkeley in 1980
At University of Arizona his teaching goals are to train undergraduate, graduate and postdoctoral students in genome science with applications to crop improvement and comparative genomics.

Research

My group has a broad research interest in the area of structural and functional genomics of crop plants which can be divided into 6 research areas: 1) BAC library construction center; 2) BAC/EST resource center; 3) DNA sequencing center; 4) Physical mapping center; 5) Finishing and Annotation center; and 6) Functional and comparative genomics center.

Our second thrust is in the molecular dissection of the development of the formation of abscission zones using the tomato jointless and jointless-2 genes as a model system.

In addition, the entire AGI is gearing up to play a major role in the maize genome sequencing project with our collaborators at Cold Spring Harbor Laboratory. Given our track record with the International Rice Genome Sequencing Project and our creation of a sequence ready map of the maize genome we feel we will be highly competitive.

2-4 Publications

Dietrich, F.S., S. Voegeli, S. Brachat, A. Lerch, K. Gates, S. Steiner, C. Mohr, R. Pöhlmann, P. Luedi, S. Choi, R.A. Wing, A. Flavier, T.D. Gaffney and P. Philippsen. (2004). The *Ashbya gossypii* genome as a tool for mapping the ancient *Saccharomyces cerevisiae* genome. *Science* 304:304-307.

Close, T.J., S. Wanamaker, R.A. Caldo, S.M. Turner, D.A. Ashlock, J.A. Dickerson, R.A. Wing, G.J. Muehlbauer, A. Kleinhofs, and R.P. Wise. (2004). A new resource for cereal genomics: 22k barley GeneChip comes of age. *Plant Physiology* 134:960-968.

Invited Speaker 3: Jean Christophe Glaszmann

Scientific Director & Department Director
CIRAD, Montpellier, France
glaszmann@cirad.fr



Career and activities

2007 – current Cirad, Scientific Director & Department Director

In charge of a research department on Biological systems (Bios) at Cirad made of 20 research units and 350 scientists working on biological systems in an agricultural context.

The scientific domains covered include description and analysis of genetic diversity, functional analysis of genotype * environment interactions, parasitic and symbiotic interactions and ecological dynamics. The main integrative drivers are crop improvement and management of sanitary risks for plants and animals. A large unit is being established, which will focus on research and education on plant breeding for adaptation to emerging constraints, with advanced models including rice, sorghum, Musa (banana and plantain), cacao, coffee, oil palm and eucalypts.

2004 – 2010 current CGIAR Generation Challenge Programme, SubProgramme Leader

In charge of a Sub Programme (SP1) on crop genetic diversity within the GCP. One major output of this activity will be a genetic resources support service which will distribute sets of representative reference materials for promoting international coordination of characterization efforts with the view to facilitating integrative biology.

Chair and speaker 1: Anker Sørensen

Vice-President Applied Research
Keygene N.V., Wageningen, NL
anker.sorensen@keygene.com



Career

Vice-President Applied Research, Keygene N.V. (since 2007; Innovation coordinator 2003-2007)
Manager R&D, head of laboratories, Cebeco Seeds Group (1998-2003; breeder oilseeds 1992-1998; assistant breeder sugar beets 1988-1991)

Activities and research interests

Major interest of the Keygene' Applied Research Unit is the discovery of the link between phenotypic and genotypic variation for the purpose of marker assisted breeding and Breeding by Design[®]. Linkage and association based genetic methods, sequence based physical maps as well as crop specific Lead discovery and reverse genetics platforms are utilized in trait discovery. We are interested in the development of all crop specific genetic analysis platforms as well as their utilization for trait discovery. In addition we are active in the development of methods and expertise concerning capture and modeling of plant phenotypic data.

2-4 Recent publications

TOBIAS A SCHRAG, JENS MÖHRING, HANS PETER MAURER, BALDAV S. DHILLON, ALBRECHT E.MELCHINGER, HANS-PETER PIEPHO, ANKER P. SØRENSEN MATTHIAS FRISCH: Molecular marker-based prediction of hybrid performance in maize using unbalanced data from multiple experiments with factorial crosses. TAG 2009, 118:741-751; *Theor. Appl. Genet* DOI 10.1007/s00122-008-0934-9
SØRENSEN A., STUURMAN J.; ROUPPE VAN DER VOORT J.; PELEMAN J.D (2007) Molecular Breeding: Maximizing the exploitation of genetic diversity. R.K. Varshney and R. Tuberosa (eds.). *Genomics-Assisted Crop Improvement*. Vol. 1: Genomics Approaches and Platforms, 31-56

Invited Speaker 2: Theo H.E. Meuwissen

Professor in Bioinformatics
Dept. of Animal and Aquacultural Sciences, Norwegian University of Life Sciences
theo.meuwissen@umb.no

Career

1987: MSc, Zootechnical studies, Agric. Univ. Wageningen
1990: PhD, Agricultural University Wageningen, thesis "Optimization of dairy cattle breeding plans with increased female reproductive rates"
2003: Professor in Bioinformatics.

Honours

VanBekkum Award for 'Pioneering research in the field of animal breeding schemes of especially dairy cattle', 1999, The Netherlands.

Activities and research interests

THEM's scientific research carrier is focused on strategies for the use new technologies for genetic improvement. In the design of breeding schemes area he developed optimal contribution selection: a selection method that maximizes genetic gain whilst constraining the inbreeding (J. Anim. Sci., 1997, 75:934). The most fascinating new technology is the recent explosion of genomics data, and THEM developed methods for the fine-scale mapping of QTL using both linkage and linkage disequilibrium information. For the use of high-density marker genotyping, THEM co-authored the world's first paper to suggest genome-wide selection (Meuwissen et al., 2001, Genetics 157: 1819), and hence can be considered as one of the pioneers in this field.

Invited Speaker 3: Robbie Waugh

Programme Leader Genetics
SCRI – Invergowrie, Dundee, Scotland, UK
Robbie.Waugh@scri.ac.uk



Research interests

We exploit genomics and informatics technologies in conjunction with traditional skills in genetics and plant breeding, to identify genes underlying both simple and complex traits. We are particularly interested in exploiting natural genetic variation by exploring the potential of Association Genetics in cultivated barley
We are genetically characterising morphological and developmental variation in barley by mapping and cloning mutant alleles.
We are exploring whether patterns of gene expression can be used as a surrogate to dissect complex traits.
We are involved in barley structural genomics through extensive BAC end sequencing and linking BAC contigs to the barley genetic map.

2-4 Recent Publications

Rostoks, N., Ramsay, L., MacKenzie, K., Cardle, L., Svensson, J.T., Bhat, P., Stein, N., Varshney, R.J., Marshall, D., Graner, A., Close, T.J. & Waugh, R. (2006) Human-induced population structure in inbreeding crop species facilitates whole genome association mapping. *Proceedings of the National Academy of Sciences, USA* 103: 18656-18661

Feuillet, C., Langridge, P. and Waugh, R. 2008 Cereal breeding takes a walk on the wild side. *Trends in Genetics* 24:24-32

Waugh, R., Jannink, J-L, Muehlbauer, G. and Ramsay, L (2009) The Emergence of Whole Genome Association Scans in Barley *Current Opinions in Plant Biology* 12: 218-222

Chair and speaker 1: Jan Traas

Director of INRA Laboratory
Plant Reproduction and Development Laboratory at the ENS Lyon, INRA, France
jan.traas@ens-lyon.fr



Career

Director of Laboratory at INRA Versailles, FR
Researcher at the Agricultural Research Department (DLO-NL), NL
Post-doctoral work at the John Innes Centre, Norwich, UK
PhD at the University of Nijmegen, NL (1982)

Honours

Awarded the Institut de France's Prix Jaffé 2007 after nomination by the French Academy of Sciences

Research interests

Since 1996, he has been working on integrative and systemic biology research on plant meristems. He is particularly interested in the apex of the model plant *Arabidopsis thaliana*, where the shoot apical meristem forms the plant's reproductive organs. His ultimate goal is to identify the mechanisms that determine the formation, position, number and type of organs formed by these meristems. Promoting a multidisciplinary approach to research is a fundamental part of his work.

2-4 recent publications

Corson F, Hamant O, Bohn S, Traas J, Boudaoud A, Couder Y (2009). Turning a plant tissue into a living cell froth through isotropic growth. *Proc Natl Acad Sci USA* 106:8453-8458

Das, P., Toshiro Ito, Frank Wellmer, Teva Vernoux, Annick Dedieu, Jan Traas, Elliot M. Meyerowitz (2009). Floral stem cell termination involves the direct regulation of AGAMOUS by PERIANTHIA. *Development* 136, 1605-1611

Hamant O., Heisler MG., Jonsson H., Krupinski P., Uyttewaal M., Bokov P., Corson F., Sahlin P., Boudaoud A., Meyerowitz EM., Couder Y., Traas J. (2008) Developmental patterning by mechanical signals in *Arabidopsis*. *Science* 322 (5908), 1650-1655

STOMA S., LUCAS M., CHOPARD J., SCHAEDEL M., Traas J., GODIN C., 2008 Flux based transport enhancement as a plausible unifying mechanism for Auxin transport in meristem development *PLOS COMP BIOL*, 4 (10) 1000207

Invited Speaker 2: Jane Langdale

Head of Department
University of Oxford - Department of Plant Sciences Dept., UK
jane.langdale@plants.ox.ac.uk



Career

Head of Department, Dept. Plant Sciences, University of Oxford, since 2007
Professor of Plant Development, Dept. Plant Sciences, University of Oxford, since 2006
Senior Research Fellow, The Queen's College, Oxford, since 2006
University Lecturer, Dept. of Plant Sciences, University of Oxford, 1994-2006
Tutorial Fellow, The Queen's College, Oxford, 1994-2006
Royal Society University Research Fellow, University of Oxford, 1993-1994 (SERC Advanced Research Fellow, 1990-1993)
Associate Research Scientist, Yale University, 1988-1990 (Postdoctoral Research Associate, 1985-1988)

Honours

Elected EMBO Member, 2007
Royal Society University Research Fellowship, 1993
SERC Advanced Fellowship, 1990

2-4 recent publications

Waters, M.T., Wang, P., Korkaric, M., Capper, R.G., Saunders, N.J. & Langdale, J.A. (2009) GLK transcription factors co-ordinate expression of the photosynthetic apparatus in Arabidopsis. *Plant Cell* 21, 1109-1128.
Bravo-Garcia, A., Yasumura, Y. & Langdale J.A. (2009) Specialization of the GLK regulatory pathway during land plant evolution. *New Phytologist* 183, 133-141.
Harrison C.J., Corley, S.B., Moylan, E.C., Alexander, D.L., Scotland, R.W. & Langdale, J.A. (2005) Independent recruitment of a conserved developmental mechanism during leaf evolution. *Nature* 434, 509-514.

Invited Speaker 3: Dani Zamir

Professor
The Hebrew University of Jerusalem - Faculty of Agriculture, Rehovot, Israel
zamir@agri.huji.ac.il



Career

1996- Prof. Genetics, The Hebrew University of Jerusalem, Faculty of Agriculture, Rehovot
1992- 1996 Assoc. Prof Genetics, HUJ, Faculty of Agriculture, Rehovot
1986- 91 Senior Lecturer Genetics, HUJ, Faculty of Agriculture, Rehovot
1982-85 Lecturer Genetics, HUJ, Faculty of Agriculture, Rehovot

Research Interests

The underlying hypothesis for the projects in the lab is that rate-limiting pathways for agricultural yield are common among crop plants. Identification of genes affecting yield in tomato could lead to the discovery of yield limiting pathways in other crop plants. Our objective is to use map based cloning technologies to isolate genes affecting yield in tomato. The first gene that was cloned is sp (Self Pruning) that regulates determinate and indeterminate growth. The other target genes originate from wild Lycopersicon species and are responsible for yield and/or Total Soluble Solids (Brix) increase in determinate and indeterminate tomatoes. Once such genes are identified, cloned and characterized, their role in other crop plants will be investigated

2-4 Recent Publications

Schauer Nicolas; Semel Yaniv; Balbo Ilse; Steinfath Matthias; Repsilber Dirk; Selbig Joachim; Pleban Tzili; Zamir Dani; Fernie Alisdair R. 2008. Mode of inheritance of primary metabolic traits in tomato. *The Plant cell* 2008;20(3):509-23.
Galpaz Navot; Wang Qiang; Menda Naama; Zamir Dani; Hirschberg Joseph. 2008. Abscisic acid deficiency in the tomato mutant high-pigment 3 leading to increased plastid number and higher fruit lycopene content. *The Plant Journal* : for cell and molecular biology 2008;53(5):717-30.
Lippman Zachary B; Semel Yaniv; Zamir Dani. 2007. An integrated view of quantitative trait variation using tomato interspecific introgression lines. *Current Opinion in Genetics & Development* 2007;17(6):545-52.

Chair and speaker 1: James Barber

'Ernst Chain Professor' of Biochemistry
Wolfson Laboratories, Imperial College, London, UK
Director, Center for Photomolecular Sciences, UK
j.barber@imperial.ac.uk
www.bio.ic.ac.uk/research/barber/people/jbarber.html



Career

Full professor (since 1989), Imperial College, UK (Reader in 1974, academic staff 1968)
Post-doctoral Unilever European Fellow at the State University of Leiden, NL
Graduated in Chemistry (BSc), University of Wales; Biophysics (MSc, PhD) University of East Anglia

Honours and awards

Fellow of the Royal Society
Fellow of the Royal Society of Chemistry & awarded the Flintoff Medal by the RSC in 2002
Elected member of the European Academy 'Academia Europaea' (1989)
Elected foreign member of the Royal Swedish Academy of Sciences
Italgas Prize for Energy and the Environment (2005), Biochemical Society Novartis medal and prize (2006),
Wheland Medal and Prize from the University of Chicago (2007)
Daniel Arnon Lecture and Prize, University of California, Berkeley (2008)
Lee Kuan Yew Distinguished Visitor to Singapore (2008)

Activities

Dean Royal College of Science at Imperial College (1989-1990) & Head of the Biochemistry Department (1989-1999)

Research interests

Investigate photosynthesis and the functional role of the photosystems with emphasis on their structures. Focus on Photosystem Two, a remarkable biological machine able to use light energy to split water into oxygen and reducing equivalents, a reaction upon which we are all dependent

Publications

Over 500 original research papers and reviews in the field of plant biochemistry, editing 15 specialised books

Invited Speaker 2: Stephen Mayfield

Director, San Diego Center for Algae Biotechnology
John Doves Isaacs Chair of Natural Philosophy at UC San Diego
The Scripps Research Institute, La Jolla, CA, USA
mayfield@scripps.edu
www.scripps.edu/cb/mayfield/



Career

Ph.D. University of California, Berkeley
B.S. California Polytechnic State University, San Luis Obispo

Activities

As assistant professor at the Scripps Research Institute Steve was the first person to achieve transformation of the *C. reinhardtii* nuclear genome, making it the model organism for photosynthesis and related gene function. The lab identified mechanisms of chloroplast gene expression leading to recombinant protein expression in algal chloroplast, and could first demonstrate high levels of recombinant protein expression in algae, the start for algae as therapeutic protein production platform. This resulted in the founding Rincon Pharmaceutical, a start-up company based on production of human therapeutics using eukaryotic algae. The lab identified the 3D-structure of ribosomes of *C. reinhardtii* using Cryo-electron microscopy, expanding our knowledge of gene expression in algae, a step towards defining key aspects of gene expression essential to developing algae as a biotechnology platform. Recently the lab demonstrated algae engineering to produce superior biofuel molecules. Steve was scientific founder of Sapphire Energy and chairs its Scientific Advisory Board, a company developing biofuel production by metabolic engineering of algae and photosynthetic bacteria.

Research interests

Molecular genetics of green algae, recombinant production of therapeutic proteins, and biofuel molecules using algae as a production platform

Invited Speaker 3: Alfred William Rutherford

Research Director, CNRS
Head of Laboratory of Molecular Bioenergetics and Photosynthesis
CEA Institut de Biologies et de Technologies de Saclay, Gif-sur-Yvette, France
alfred.rutherford@cea.fr
& Visiting Professor, University of London



Career

2007-present Head Laboratory of Molecular Bioenergetics and Photosynthesis
2005-2008 Visiting Research Fellow / Professor, Australian National University, Canberra
2001-2007: Head Laboratory of Biophysics of Oxidative Stress SBE, DBCM, CE Saclay, France
2000- 2004: Director of National Research Program (GDR) on "Photosynthèse Membranaire"
2000-2007 Head Service de Bioénergétique, DBJC, CEA Saclay, France
1992 Directeur de Recherche (1ère classe) CNRS Dépt.de Biol., SBE. CE Saclay, France
1985-present: Group leader, Dépt. de Biologie, Serv. Biophysics. CEN Saclay, France
1983- 1988: Chargé de Recherche, CNRS, Dépt.de Biol., Serv. Biophys CEN Saclay, France
1982-1983: Post Doc, Dépt. de Biologie, Service de Biophysique, CEN Saclay, France
1982 & 1983: Visiting Scientist, Solar Energy Lab, RIKEN, Inst Phys/Chem Saitama, Japan.
1979 - 1981: Post Doc (NIH & NSF), Dept. of Biophys and Physiol, U. of Illinois, Urbana, USA
1976-1979: Post Graduate Student ,Dept.Botany and Microbiology, University College London, G.B.

Honours received

2001: CNRS Silver Medal & Elected Member of European Molecular Biology Organisation (EMBO)
2005: Craig Lecturer of the Australian National University
2008: Total Lecture, European Bioenergetics Conference, Dublin

Research interestts

Photosystem II, one of the major chlorophyll-containing proteins of photosynthesis, is the enzyme that photolyses water. Our aims are to understand how it works at a molecular level not only in terms of its catalytic chemistry but also in terms of the multiple mechanisms that the enzyme has developed to protect itself against the reactive oxygen species that it generates. Publications in refereed Journals: 161 (h-factor 52)

Chair and speaker 1: Stefan Jansson

Professor

Dept. of Plant Physiology, Umea Plant Science Center, Umea University, SE
stefan.jansson@plantphys.umu.se



Career

Professor (since 2002,) Umeå University, SE (Associate professor 2001, Assisat professor 1995)

Postdoc 1994, Plantebiokemisk laboratorium, KVL, Copenhagen, DK

PhD 1992, Umeå University, Plant Molecular Biology, SE

Activities

Chairman of Woodheads AB (since 2005)

Vice chairman and Scientific coordinator of Umeå Plant Science Centre (since 2006)

Member of executive committee, International Society of Photosynthesis Research (since 2007)

Research interests

Photosynthetic light harvesting, leaf senescence, *Populus* genetics and genomics.

2-4 Recent publications

Tuskan GA, DiFazio S, Jansson S, et al. (2006) The genome of black cottonwood, *Populus trichocarpa* (Torr. & Gray). **Science** 313: 1596-1604.

Jansson S, Douglas CJ (2007) *Populus*: A model system for plant biology. **Annu Rev Plant Biol** 58: 435-458.

Fracheboud Y, Luquez V, Björkén L, Sjödin A, Tuominen H, Jansson S (2009) The Control of Autumn Senescence in European Aspen. **Plant Physiology** (online)

Invited Speaker 2: Wout Boerjan

Professor
University of Ghent, BE
woboe@psb.UGent.be



Career

Professor at the University of Ghent, BE: Genetics of eukaryotes (since 2003)
Bioenergy Group leader, VIB Department of Plant Systems Biology and
UGent Department of Plant Biotechnology and Genetics, Ghent, BE (since 1993)

PhD 1993, Laboratory of Plant Genetics,
Graduated 1985 in biology – zoology, University of Ghent, BE

Honours and activities

Associated editor of Tree Genetics and Genomes, and of Bio-energy Research
Organized 14 national and international congresses
Elected fellow of IAWS

Research interest

Genetic engineering of lignin biosynthesis to improve plant cell walls for an easier conversion to biofuels, by combining transcriptomics, metabolomics and reverse genetics to get a systems view on lignification
Poplar and Arabidopsis are used as model systems

Recent publications (84 A1 peer-reviewed papers)

STRAUSS, S., TAN, H., BOERJAN, W and SEDJO, R (2009). Strangled at birth – forest biotech and the Convention on Biological Diversity. *Nat. Biotechnol.*, 27, 519-527 (2009)

VANHOLME, R., MORREEL, K., RALPH, J., and BOERJAN, W. (2008). Lignin engineering. *Curr. Opin. Plant Biol.* 11, 278-285.

DAUWE, R., MORREEL, K., GOEMINNE, G., GIELEN, B., ROHDE, A., VAN BEEUMEN, J., RALPH, J., BOUDET, A.-M., KOPKA, J., ROCHANGE, S.F., HALPIN, C., MESSENS, E., and BOERJAN, W. Molecular phenotyping of lignin-modified tobacco reveals associated changes in cell-wall metabolism, primary metabolism, stress metabolism and photorespiration. *Plant J.* 52, 263-285 (2007)

Invited Speaker 3: Gerald Tuskan

Distinguished Scientist, Plant Systems Biology Group
Environmental Sciences Division, Oak Ridge National Laboratory, USA
tuskanga@ornl.gov ; www.esd.ornl.gov/PGG/tuskan_bio.htm



Career

2002-07: Research Professor; Dept. of Plant Sciences; University of Tennessee
1990-05: Research & Senior Scientist; Environmental Sciences Division; Oak Ridge N L
1984-90: Associate Professor of Horticulture & Forestry; North Dakota State University
1981-84: Instructor; Forest Science Department; Texas A&M University
1979-80: Graduate Research Assistant; Forestry Department; Mississippi State Univ.
1978-79: Research Technician; Forestry Department; Northern Arizona University
Ph.D., Genetics, Texas A&M University (1984); M.S., Forest Genetics, Mississippi State University (1980);
B.S., Forest Management, Northern Arizona University (1978)

Research interest

Genetic basis of tree growth & development (biomass accumulations, carbon allocation, cell wall chemistry)
Populus genomics - assembly of the draft sequence, comparative genomics, functional gene identification
Short-rotation woody crop silvicultural systems

Recent publications

Yang, X., U.C. Kalluri, S.P. DiFazio, S.D. Wullschleger, T.J. Tschaplinski, Z.-M. Cheng and G.A. Tuskan. 2009. Poplar Genomics: State of the Science. *Critical Reviews in Plant Sciences* In press.

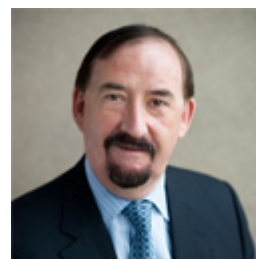
Cheng, Z.-M. and G.A. Tuskan. 2009. *Populus* Community Mega-Genomics: Coming of Age. *Critical Reviews in Plant Sciences* In press.

Tsai C-J, Ranjan P, DiFazio SP, Tuskan GA and Johnson V. 2009. Poplar Genome Microarrays. In: Joshi CP and DiFazio SP (eds), *Genetics, Genomics and Breeding of Crop Plants: Poplar*. Science Publishers, Enfield, New Hampshire In press.

Achieving quality IV: From metabolites and recombinant proteins to plant-made-pharmaceuticals

Chair and speaker 1: Maurice Moloney

Founder and Chief Scientific Officer
SemBioSys, Calgary, CAN
mmmolone@ucalgary.ca



Career

CEO SemBioSys (since 2001)

Natural Sciences and Engineering Research Council of Canada (NSERC) Industrial Research Chair in Plant Biotechnology (1995 to 2004)

Prior engagements:

- Professor, Department of Biological Sciences, University of Calgary (since 1987)
- Head Cell Biology Group at Calgene Inc

PhD in Plant Biochemistry, Leicester Polytechnic, UK

B.Sc. in Organic Chemistry, Imperial College, the University of London, UK

Honours

Prestigious awards, e.g. the Alberta Science and Technology (ASTECH) Award for leadership in Alberta Technology and D.Sc. *honoris causa* by the University of Lethbridge

Activities and research interest

Over 20 years in plant biotechnology, over 70 research papers, over 20 issued or pending patents

Developed the first transgenic oilseed plants using canola Calgene Inc, resulting in a landmark patent in plant biotechnology - the basis of Monsanto's Roundup Ready® and Bayer's Liberty Link® canola products

Serves on many federal and corporate advisory boards, currently member of NSERC Council and Chairperson of NSERC's Committee on Research Partnerships

Invited Speaker 2: Kazuki Saito

Group Director

Metabolic Function Research Group, RIKEN Plant Science Center, Yokohama, JAP

ksaito@faculty.chiba-u.jp



Career

2005 Group Director in RIKEN Plant Science Center

1995 Full Professor in Chiba University

1982 Ph. D from University of Tokyo

Honours

1993 Award for Distinguished Young Scientists of Japanese Society of Pharmaceutical Sciences

Activities

Teaching and research in Chiba University and RIKEN plant Science Center

Research interests

Plant Functional genomics

Metabolomics

Primary and secondary metabolism

Biotechnology application

2-4 recent publications

Okazaki, Y., et al., A chloroplastic UDP-Glucose pyrophosphorylase from Arabidopsis is the committed enzyme for the first step of sulfolipid biosynthesis. *Plant Cell*, 21, 892–909 (2009)

Fukushima, A., et al., Impact of clock-associated Arabidopsis pseudo-response regulators in metabolic coordination. *Proc. Natl. Acad. Sci. USA*, 106, 7251-7256 (2009)

Invited Speaker 3: Eva Stoger

Professor

Department for Applied Genetics and Cell Biology, University of Natural Resources and Applied Life Sciences, Vienna, AT

eva.stoeger@boku.ac.at



Career

2002 -2008 Group leader, Aachen University of Technology, DE

1998 -2002 Team leader, Molecular Biotechnology unit, John Innes Centre, Norwich, UK

1996 -1998 Post-doctoral fellow, John Innes Centre, Norwich, UK

1995 -1996 Post-doctoral fellow, University of Florida, Gainesville, USA

1994 PhD, University of Vienna, AT

1989 MSc, University of Salzburg, AT

Awards and honours received

2002 Sofia-Kovalevskaja Prize by the Alexander von Humboldt Foundation

2000 BBSRC Exceptional Performance Award (EPA) for the years 1998/99 and 1999/2000

1999 Golden Grain Award by the Cerealiers de France and AGPM, France

2-4 recent publications

Rademacher, T; Arcalis, E; Stoger, E: Production and localization of recombinant pharmaceuticals in transgenic seeds. *Methods Mol Biol.* 2009; 483:69-87

Abranches, R; Arcalis, E; Marcel, S; Altmann, F; Ribeiro-Pedro, M; Rodriguez, J; Stoger, E: Functional specialization of *Medicago truncatula* leaves and seeds does not affect the subcellular localization of a recombinant protein. *Planta.* 2008; 227(3):649-658

Floss, DM; Sack, M; Stadlmann, J; Rademacher, T; Scheller, J; Stöger, E; Fischer, R; Conrad, U: Biochemical and functional characterization of anti-HIV antibody-ELP fusion proteins from transgenic plants.. *Plant Biotechnol J.* 2008; 6(4):379-391

Pires, AS; Cabral, MG; Fevereiro, P; Stoger, E; Abranches, R: High levels of stable phytase accumulate in the culture medium of transgenic *Medicago truncatula* cell suspension cultures. *Biotechnol J.* 2008; 3(7):916-923

Chair and speaker 1: Paul Christou

ICREA Professor
Universitat de Lleida, Spain
christou@pvcf.udl.cat



Career and activities

2004-present: ICREA Professor, Universitat de Lleida, ES

2001-04: Full Professor, Fraunhofer Institute Molecular Biotechnology & Applied Ecology, Aachen, DE

1998 – 2001: Head, Molecular Biotechnology Unit, John Innes Centre, UK (1994-98 Head Lab)

1997 – present: Full Adjunct Professor, Mediterranean Agronomic Institute Chania, Crete, Greece

1994 – 1995: European Commission. Chairman of Biotechnology Bridge Programme evaluation panel.

1993 – 1997: ABSP Technical Advisory Board Panel Member, Michigan State University, USA

1988 – 1994: Senior Scientist, Agracetus Inc. USA (1982 – 1987 Scientist)

1980 – 1982: Research Fellow - Junior Lecturer, University College London

Research interests

Transgenes, metabolic engineering, production of pharmaceutical macromolecules, engineering of multiple novel agronomic traits in crop plants; Cereal functional genomics; Training, technology transfer, intellectual property, regulatory and bio-safety issues of transgenic crops for developing countries

2-4 recent publications

C. Zhu, S. Naqvi, T. Capell and P. Christou (2009) Metabolic engineering of ketocarotenoid biosynthesis in higher plants. **Archives Biochemistry Biophysics** 483: 182-190

S. Naqvi, C. Zhu, G. Farre, L. Bassie, K. Ramessar, J. Breitenbach, Dario Perez Conesa, Gaspar Ros Berruezo, G. Sandmann, T. Capell and P. Christou (2009) Transgenic multivitamin corn through biofortification of endosperm with three vitamins representing three distinct metabolic pathways **Proc Natl Acad Sci USA** 106: 7762-7767

C. Zhu, S. Naqvi, J. Breitenbach, G. Sandmann, P. Christou and T. Capell (2008) Reconstruction and extension of the carotenoid biosynthetic pathway in maize through combinatorial nuclear genetic transformation **Proc Natl Acad Sci USA** 105: 18232-18237.

K. Ramessar, T. Capell, R.M. Twyman, H. Quemada, P. Christou (2008) Trace and traceability – a call for regulatory harmony **Nature Biotechnol** 26: 975-978.

Invited Speaker 2: Wilhelm Gruissem

Professor of Plant Biotechnology
Institute of Plant Sciences, ETH Zurich, CH
wgruisse@ethz.ch



Career

Full Professor of Plant Biotechnology, Institute of Plant Sciences, ETH Zurich since 2000
Chair of the Department of Plant and Microbial Biology at UC Berkeley (1993 – 1998)
Director collaborative program UCD Department and Novartis/San Diego (since 1998)
Assistant professor (1983), full professor (since 1990), University California, Berkeley, USA
Postdoctoral fellow for research, Department of Molecular, Cellular and Developmental Biology, University of Colorado in Boulder, USA
Research associate, Institute of Physiological Chemistry, University of Marburg (2 years)
Ph.D. (1979) and studies of biology and chemistry, Institute of Genetics, University of Bonn, DE

Honours

UC Berkeley Chancellor's Research Initiative Award, 1996
Elected Fellow, American Association for the Advancement of Sciences, 1998
Chancellor's Professorship, UC Berkeley, 1999
4 awards for the textbook "Biochemistry and Molecular Biology of Plants" (in EN, IT, CHI and JAP)
Anniversary Prize 2003 of the Eiselen Foundation Ulm, Germany

Activities

He is elected fellow of the American Association for the Advancement of Sciences, member of learned societies, and on the editorial boards of several professional journals
President (2007-2010) and Board member (2005-2010), European Plant Science Organisation

Research interests

Pathways and molecules involved in plant growth control and regulation of chloroplast development

Invited Speaker 3: Riitta Puupponen-Pimiä

Senior Research Scientist
VTT Technical Research Centre of Finland, Espoo, FI
riitta.puupponen-pimia@vtt.fi



Career

2009-: Docent at the University of Helsinki, Faculty of Pharmacy
1998-present: Senior Research Scientist (Plant Technology) and Vice Group Manager (Plant Biotechnology), VTT Technical Research Centre of Finland
1991-98: Research Scientist (Plant technology), VTT TRC of Finland
1988-91: Research Scientist, Academy of Finland
1983-88: Teaching Assistant of Biochemistry, University of Technology, Helsinki, FI
M.Sc.(1983), Lic. Tech. (1988) and PhD (1995) at the University of Technology, Helsinki, FI

Research activities

Bioactive berry compounds, especially secondary metabolites, phenolic compounds
Evaluation of the health effects of berries using *in vitro* bioactivity assays and clinical trials
Production of secondary metabolites in berry cell cultures

2-4 recent publications

Serrano, J., Puupponen-Pimiä, R., Dauer, A., Aura, A.-M & Saura-Calixto, F. 2009. Tannins: current knowledge of food sources, intake, bioavailability and biological effects. **Molecular Nutrition & Food Research** 53 Suppl 2: S310-29.

Puupponen-Pimiä, R., Nohynek, L., Ammann, S., Oksman-Caldentey, K.-M. & Buchert, J. 2008. Enzyme-assisted processing increases antimicrobial and antioxidant activity of bilberry. **J. Agric. Food Chem.** 56, 681-688.

Nohynek, L.J., Alakomi, H.-L., Kähkönen, M.P., Heinonen, M., Helander, I.M., Oksman-Caldentey, K.-M. & Puupponen-Pimiä, R.H. 2006. Berry phenolics: antimicrobial properties and mechanisms of action against severe human pathogens. **Nutr. Cancer** 54, 18-32.

Chair and speaker 1: Thomas Boller co-sponsored by EMBO

Professor, Head of Section Plant Physiology
Institute of Botany, University of Basel, CH
Thomas.Boller@unibas.ch



Career and activities

1984-present: T Boller & Andres Wiemken, Heads Lab Molecular biology of symbiosis, University of Basel, CH & Head 'Management and Co-ordination Office Biodiversity', Basel Zurich Center of Plant Biology, CH
1987-2003: part time Group Leader, Friedrich-Miescher Institute, Basel, CH
1979-84: J.J. Oertli – later Wiemken Lab, Botanical Institute, University of Basel, CH
1977-79: Hans Kende Lab, MSU-DOE Plant Research Laboratory, Michigan State University, USA
1977: PhD plant biology, Swiss Federal Institute of Technology (ETH Zürich), CH
1973: Diploma plant biology ETH Zurich, CH

Research interests

Plant-microbe interactions: plant symbiosis with mycorrhizal fungi and rhizobia; ecological impact of plant-pathogen interactions and symbiosis – biodiversity work; forest biodiversity; Carbohydrate metabolism and sugar sensing in plants; chemical sense of plants – perception and transduction of elicitor signals in plants

2-4 recent publications

Li J, Zhao-Hui C, Batoux M, Nekrasov V, Roux M, Chinchilla D, Zipfel C, Jones JD. 2009. Specific ER quality control components required for biogenesis of the plant innate immune receptor EFR. *Proc Natl Acad Sci USA*. 106(37):15973-78.
Boller T, He SY. 2009. Innate immunity in plants: an arms race between pattern recognition receptors in plants and effectors in microbial pathogens. *Science* 324(5928):742-4..

Invited Speaker 2: Ulrich Schurr

Professor and Director
Institute Phytosphere Research, Research Centre Jülich, DE
u.schurr@fz-juelich.de



Career

2001-present: Director, Institute Phytosphere (ICG-3), Research Centre Jülich, DE
2002-present: Full professor, Heinrich Heine University Düsseldorf, DE

Research interest

Growth and Metabolism, Transport, Ecosystems and Enabling Technology:
Growth and transport – their dynamics and interaction with the spatially and temporally heterogeneous environment

Knowledge about these interactions provides the basis of novel applications in a sustainable bioeconomy of the future - the so-called knowledge-based bioeconomy (KBBE). To understand such functions and to transfer them into practical applications requires quantitative information about key plant processes and their interaction with the dynamically changing environmental conditions as well as the underlying physiological and molecular mechanisms. Novel technologies and innovative experimental concepts are urgently needed.

Activities

Member of Plant Biochemistry and Physiology Section of Faculty 1000, Member of EPSO Board, Member of the Advisory Board of Plant, Cell & Environment, Member of the Advisory Board of Journal of Experiments Botany

2-4 recent publications

Jahnke J, Menzel MI, van Dusschoten D, Roeb GW, Buhler J, Minwuyet S, Blümmer P, Temperton VM, Hombach T, Streun M, Beer S, Khodaverdi M, Ziemons K, Coenen HH, Schurr U 2009 Combined MRI–PET dissects dynamic changes in plant structures and functions. *The Plant Journal* 59 (4), 634-644
Walter A, Silk WK, Schurr U. 2009 Environmental Effects on Spatial and Temporal Patterns of Leaf and Root Growth. *Annual Reviews of Plant Biology* 60, 279-304

Invited Speaker 3: Jörg Bohlmann

Professor and Distinguished University Scholar
Michael Smith Laboratories, University of British
Columbia, Vancouver, CAN
bohlmann@interchange.ubc.ca ,
www.michaelsmith.ubc.ca/faculty/bohlmann/



Columbia, CAN

Career

2004 - 2008: Associate Professor, University of British Columbia, CAN
2000 - 2004: Assistant Professor, University of British Columbia, CAN
1998 - 2000: Research Associate, Max Planck Institute for Chemical Ecology, DE
1995-98: Feodor Lynen Postdoctoral Fellow of the Alexander von Humboldt Foundation, Institute of Biological Chemistry, Washington State University, Pullman, USA
1995: Ph.D. at Technical University of Braunschweig, DE

Awards and honours received

Several national and international awards, numerous invited lectures and seminars around the world. Holds several patents from his research on plant and tree biotechnology

Research interests

Secondary metabolism, terpenoids, chemical defense of forest trees, forestry and grapevine genomics.

Recent publications

Martin DM *et al.* (2009) The bouquet of grapevine flowers *Proc. Natl. Acad. Sci. USA* 106:7245-7250.
Bohlmann J, Keeling CI (2008) Terpenoid biomaterials. *The Plant Journal* 54: 656-669.

Keeling CI *et al.* (2008) Functional plasticity of paralogous diterpene synthases involved in conifer defense. *Proc. Natl. Acad. Sci. USA* 105: 1085-1090.

Strengthening the functioning of ecosystems II: Climate change impact on plant production

Chair and speaker 1: Reinhart Ceulemans

Professor and Director Research Center of Excellence
Department of Biology, University of Antwerp, BE
reinhart.ceulemans@ua.ac.be



Career

2006-09: Vice-Dean of the Faculty of Sciences, University of Antwerp, BE
2001-06: Vice-Chair and Chair of the Department of Biology, UoA, BE
1990-present: Director and Professor, Department of Biology, UoA
1988-89: Research Scientist, Government Poplar Research Station, BE
1976-86: Research Assistant and Research Associate, University of Antwerp, BE
Visiting Professor, University of Paris-XI, Orsay, FR (1989) & University of Washington, Seattle, USA (1987-88)

Honours received

Scientific Achievement Award of the International Union of Forestry Research Organisations, 1990
Fulbright-Hays Grantee, University of Washington, USA, 1987-1988
Titular of the Belgian Francqui Chair at the Université Catholique de Louvain-la-Neuve, 2006-2007
Advanced Research Grant of the European Research Council (2009-2013)

Activities

Chair, Life, Earth and Environmental Sciences Committee of the European Science Foundation (ESF)
Member, Belgian National Committee IGBP Global Change
Vice-chair, Applied Biological Sciences / Environmental Technology, Fund for Scientific Research, Flanders, BE
Scientific Advisor, International Foundation for Science, SE etc.
Associate Editor of Annals of Forest Science (since 2007) and past member of different editorial boards

Research interest

Global change effects on plants and ecosystems – focus on forest ecosystems; Alternative bio-energy sources; Over 240 publications in peer-reviewed (A1) scientific journals (incl. Nature and Science); Among the 20 most cited plant scientists in Europe (1999-2005)

Invited Speaker 2 (shared presentation with 3): Chiara Tonelli

Professor of Genetics and leader of the Plant Molecular Genetic Group
Department of Biomolecular Sciences and Biotechnology, University of Milan, IT
Chiara.tonelli@unimi.it



Honours

EMBO member, the European Molecular Biology Organisation.

Activities

Numerous national and international scientific committees & science advisory boards
2008-11: Member of the Advisory Group for Food, Agriculture and Fisheries, and Biotechnology of the European Commission, and of the Expert Group for Food and Health Research
2007-12: Board member, European Plant Science Organisation (EPSO)
Since 2005: Secretary General of the "Future of Science Conference"
Member Research and Technological Transfer Committee of the University of Milan
Reviewer for scientific journals (Molecular Cell, Molecular and Cellular Biology, EMBO J., Plant Cell, Plant J., Plant Molecular Biology) and for international granting Agencies (USDA, EMBO, TWAS, Human Frontier)

Research interests

Transcriptional control and gene regulation in plants during development and in interaction with the environment - fundamental aspects of plant biology to biotechnological applications

Invited Speaker 3 (shared presentation with 2): Dirk Inzé

Scientific Director and Professor
Department of Plant Systems Biology, Ghent University, BE
dirk.inze@psb.vib-ugent.be



Career

2002-present: Director Department Plant Systems Biology, VIB, BE (1999 Deputy Dir.)
1995-present: Professor at Ghent University, BE
1990: appointed Research Director INRA at the Ghent Joint Laboratory, BE
1984 Ph.D. in Zoology, Ghent University, BE
1979 graduated in Zoology, Ghent University, BE

Activities

1998: Founded the biotechnology company CropDesign, BE – 2006 acquired by BASF
2006: Founded Solucel, BE (biotech production of pharmaceuticals in plants)
Numerous scientific committees and science advisory boards
Member of the editorial or advisory boards of Journal of Experimental Botany, Plant Physiology, The Plant Journal, Plant Cell Physiology and EMBO Journal

Honours

1994: Laureate of the Körber Stiftung Prize
Since 2003 EMBO member
2005 Laureate of the Francqui Prize and became elected member of the Royal Flemish Academy of Belgium for Science and the Arts
2007-08 Board Member European Plant Science Organisation (EPSO)

Research interests

Basic cell cycle machinery in plants and mechanism of orchestrating plant growth
According to a recent ISI survey, he is one of the most cited and influential researchers in his field

Invited Speaker 4: Philippe Ciais

Senior Researcher and Assistant Director
Laboratoire des Sciences du Climat et de l'Environnement, Gif sur Yvette, FR
philippe.ciais@cea.fr



Career and activities

Over 15 years research in studies on Carbon Cycle and environmental isotopes
Contributed to 150 publications in peer reviewed journals, incl. some 20 in Science and Nature
Coordinated several research projects within EU funded programmes, in particular the European infrastructure Integrated Carbon Observation System (www.icos-infrastructure.eu/)
Directed 15 PhD dissertations

Honours received

Lead author of the IPCC 4th assessment report
Member of Academia Europeae

Research interests

Carbon cycle modelling and observation
Isotope studies applied to carbon cycle problems, ecosystem C balance modeling and diagnostic

2-4 recent publications

S. Piao, P. Ciais, P. Friedlingstein, et al. Net carbon dioxide losses of northern ecosystems in response to autumn warming", *Nature*, 2008
Ciais P, Schelhaas MJ, Zaehle S, et al. Carbon accumulation in European forests *NATURE GEOSCIENCE*, 2008
Luyssaert, S., Schulze, E.-D., Börner, A., Knohl, A., Hessenmöller, D., Law, B.E., Grace, J., and Ciais, P. 2008. Old-Growth Forests as Global Carbon Sinks. *Nature*, 455: 213-215.
Piao, S. L., J. Y. Fang, P. Ciais et al. "The carbon balance of terrestrial ecosystems in China." *Nature* 458(7241): 1009-U82, 2009.

Strengthening the functioning of ecosystems III: Climate, ecosystems and genomics

Chair and speaker 1: Ian Woodward

Professor of Plant Ecology
Department of Animal & Plant Sciences, University of Sheffield, UK
f.i.woodward@sheffield.ac.uk



Career

1981-91: Fellow, Trinity Hall, University of Cambridge, UK
1979-91: Lecturer, Department of Botany, University of Cambridge, UK
1976-79: Lecturer, Dept. of Plant Science, University College Cardiff, University of Wales
1975-76: Higher Scientific Officer, Grassland Research Institute, UK
1973-75: N.E.R.C. Research Fellow, University of Lancaster, UK

Honours

Fellow of Linnean Society, 1990.
W.S. Cooper Award of the Ecological Society of America, 1991 for 'Climate and Plant Distribution' (1987 CUP)
Elected Fellow of the American Association for the Advancement of Science, 2003
Nobel Peace Prize as member of Intergovernmental Panel on Climate Change, 2007

Research interests

The impacts of climate and carbon dioxide concentration on plants and vegetation at the global scale:

- Modelling and data analysis applied to past, present and future environments
- Determining the mechanisms by which changes in carbon dioxide concentration and humidity influence stomatal development

2-4 recent publications

Sitch, S., Huntingford, C., Gedney, N., Levy, P.E., Lomas, M., Piao, S.L., Betts, R., Ciais, P., Cox, P., Friedlingstein, P., Jones, C.D., Prentice, I.C. & Woodward, F.I. (2008). Evaluation of the terrestrial carbon cycle, future plant geography and climate-carbon cycle feedbacks using 5 Dynamic Global Vegetation Models (DGVMs). *Global Change Biology*, 14, 2015-2039.

Quaife, T., S. Quegan, M. Disney, P. Lewis, M. Lomas, & F. I. Woodward (2008), Impact of land cover uncertainties on estimates of biospheric carbon fluxes, *Global Biogeochemical Cycles*, 22, GB4016, doi:10.1029/2007GB003097.

Kunin, W.E., Vergeer, P., Kenta, T., Davey, M.P., Burke, T., Woodward, F.I., Quick, P., Mannarelli, M.E., Watson-Haigh, N.S. & Butlin, R. (2009). Variation at range margins across multiple spatial scales: environmental temperature, population genetics and metabolomic phenotype. *Proceedings of the Royal Society, B*. 276, 1495-1506.

Woodward, F.I., Bardgett, R.D., Raven, J.A. & Hetherington, A.M. (2009). Biological approaches to global environment change mitigation and remediation. *Current Biology*, 19, R615-R623.

Invited Speaker 2: Jenny McElwain

Lecturer in Plant Palaeobiology and Palaeoecology and Marie Curie Team Leader
School of Biology & Environmental Science, UCD Science Centre, Dublin, IE
Jennifer.McElwain@ucd.ie



Career

2006-present: Lecturer Plant Palaeobiology and Palaeoecology, School of Biology and Environmental Science, UCD, IE
2003-06: Associate Curator of Paleobotany, Field Museum of Natural History, Chicago, USA (2000-03: Assistant Curator)
1998-2000: Leverhulme Postdoctoral Fellow
1997-98: Natural Environment Research Council Post-Doc research associate
1997: PhD in Paleobotany, Royal Holloway College, University of London, UK
1993: B.A. in Botany, Trinity College Dublin, IE

Activities

Research Associate of the Field Museum; Adjunct Associate Professor at Northwestern University, USA

Research interests

Interface between geological and biological sciences, focused on exploring macroecological and evolutionary responses of plants to long term climatic and atmospheric change:
Plant community responses in the plant fossil record to changes in atmospheric carbon dioxide concentration

2-4 recent publications

*McElwain, J.C., Wagner, P.J. and Hesselbo, S.P. (2009) 'Fossil Plant Relative Abundances Indicate Sudden Loss of Late Triassic Biodiversity in East Greenland'. *SCIENCE*, 324 (5934):1554-1556.

*Belcher, C.M. and McElwain, J.C. (2008) 'Limits on Combustion in Low O₂ Redefine Paleatmospheric Predictions for the Mesozoic'. *SCIENCE*, 321 (5893):1197-1200.

*McElwain, J.C. and Punyasena, S. (2007) 'Mass extinction events and the plant fossil record'. *TRENDS IN ECOLOGY AND EVOLUTION*, 22 (10):548-557.

Invited Speaker 3: Franco Miglietta

To come

Chair and speaker 1: Bernhard Schmid

Full professor and Director
Institute of Environmental Sciences, University of Zurich, CH
bernhard.schmid@uwinst.uzh.ch

Career

1994-present: Full professor and Director, Institute of Environmental Sciences, University of Zurich, CH
1988-93: Habilitation (Botany), Botanical Institute, University of Basel, CH
1984-87: Postdoc, Department of Organismic and Evolutionary Biology, Harvard University, Cambridge, USA
1981-83: Postdoc, School of Plant Biology, University College of North Wales, Bangor, UK
1977-80: PhD-studies, Institute of Systematic Botany, University of Zurich (C.D.K. Cook)

Honours

2004 Second-best publishing ecologist in German-speaking countries according to Laborjournal
2009 Guest professorship Peking University (2009-2011)

Activities:

2005- : "Comité d'évaluation UMR 5175 CEFE – CNRS", Montpellier, FR
2005-08: "Forschungskommission / Gemeinsame Kommission Exzellenzinitiative", DFG, DE
2007- : Editor-in-Chief Journal of Plant Ecology, Editorial Board of Oecologia, Basic & Applied Ecology
2008- : Board of presidents, Swiss National Science Foundation; President, Committee interdisciplinary research
2009: Vice Dean of the Faculty of Mathematics and Science, University of Zurich, CH

Research interests

Plant population biology, biodiversity research, clonal organisms, environmental studies, experimental design

2-4 recent publications

Marquard E., Weigelt A., Roscher C., Gubsch M., Lipowski A., Schmid, B. (2009). Positive biodiversity–productivity relationship due to increased plant density. *Journal of Ecology* 97: 696-704.
Wacker L., Baudois O., Eichenberger-Glinz S., Schmid B. (2009) Diversity effects in early- and mid-successional species pools along a nitrogen gradient. *Ecology* 90: 637-648.
Petermann J.S., Fergus A.J., Turnbull L.A., Schmid B. (2008). Janzen-Connell effects are both widespread and strong enough to maintain functional diversity in grasslands. *Ecology* 89: 2399-2406.
Schmid B., Hector A., Saha P., Loreau M. (2008). Biodiversity effects and transgressive overyielding. *Journal of Plant Ecology* 1: 95-102.

Invited Speaker 2: Tom Whitham

Executive Director
Merriam-Powell Center for Environmental Research, Northern Arizona Univ., USA
thomas.whitham@nau.edu



Career

Executive Director, Merriam-Powell Center for Environmental Research, Northern Arizona Univ., USA
Regents' Professor, Dept. of Biological Sciences, Northern Arizona Univ., USA
Ph.D. at Univ. of Utah, USA; M.S. in Zoology, Ohio State Univ., USA

Honours Received

George Mercer Award presented by the Ecological Society of America; Phi Kappa Phi Faculty Scholar; Burlington Resources Foundation Faculty Achievement Award for Scholarship; Biology Graduate Student's Outstanding Instructor Award; & Outstanding Teacher/Advisor Award; etc.

Research Interests

Community & ecosystem genetics, climate change as an evolutionary event, conservation and restoration

Recent Publications

Barbour, R.C., J.M. O'Reilly-Wapstra, D.W. De Little, G.J. Jordan, D.A. Steane, J.R. Humphreys, J.K. Bailey, T.G. Whitham, and B.M. Potts. 2009. A geographic mosaic of genetic variation within a foundation tree species and its community-level consequences. *Ecology* (in press).

Stultz, C.M., C.A. Gehring, and T.G. Whitham. 2009. Deadly combination of genes and drought: Increased mortality of herbivore-resistant trees in a foundation species. *Global Change Biology* 15:1949-1961.

Evans, L.M., G.J. Allan, S.M. Shuster, S.A. Woolbright, and T.G. Whitham. 2008. Tree hybridization and genotypic variation drive cryptic speciation of a specialist mite herbivore. *Evolution* 62:3027-3040.

Whitham T.G, S.P. DiFazio, J.A. Schweitzer, S.M. Shuster, G.J. Allan, J.K. Bailey, and S.A. Woolbright. 2008. Extending genomics to natural communities and ecosystems. *Science* 320:492-495.

Invited Speaker 3: Richard Hobbs

Prof Richard J Hobbs
Australian Laureate Fellow
School of Plant Biology, The University of Western Australia, Australia
rhobbs@cyllene.uwa.edu.au



Career

2000- Professor of Environmental Science, Murdoch University, Western Australia, AUS
1995-2000 Senior Principal Research Scientist, CSIRO Wildlife & Ecology, AUS
1990-95 Principal Research Scientist, CSIRO Division of Wildlife & Ecology, AUS
1987-90 Senior Research Scientist, CSIRO, Division of Wildlife & Ecology, AUS
1984-87 Research Scientist, CSIRO, Division of Wildlife & Ecology, AUS
1982-4 NERC/NATO Postdoctoral Fellow, Stanford University, California, USA
1982 Ph.D. University of Aberdeen, "Post-fire Succession in Heathland Communities"
1981-2 SRC Research Fellow, Department of Botany, University of Aberdeen (phloem flows)
1981 Part-time research fellow, Department of Botany, University of Aberdeen (dune grasses)

Research interests

Ecologist with experience in Australia, UK, Europe and USA. Particular interests are vegetation dynamics, biotic invasions, management of remnant vegetation, restoration ecology, conservation biology and landscape ecology. Current research focuses on management and rehabilitation of remnant vegetation in agricultural areas, and landscape-scale restoration planning and management.

Activities

Currently Project Leader, "Restoration Ecology" and co-project leader "Integrating conservation with production", within the program "Sustainable Landscapes"
is currently Professor of Restoration Ecology in the School of Plant Biology at the University of Western Australia, where he holds an ARC Australian Laureate Fellowship, and leads the Ecosystem Restoration Laboratory, a dynamic research group engaged in a variety of projects. Originally from Scotland, he spent 3 years in California and has been in Western Australia since 1984, working with CSIRO and at Murdoch
Olos Conference – Invited speakers CVs – by 18.11.2009

University before joining UWA in 2009. His particular interests are in vegetation dynamics and management, invasive species, ecosystem restoration, conservation biology and landscape ecology.

He is the author of over 300 scientific publications, many magazine articles and other publications, and author/editor of 18 books. He serves or has served in executive positions in a number of learned societies and on numerous editorial boards and is currently Editor in Chief of the journal *Restoration Ecology*. He was elected to the Australian Academy of Science in 2004. His current research focuses on "Intervention ecology: managing ecosystems in the 21st century".