

Opening and Keynote

CV 01: 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

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

Research interests

Developmental biology, plant genetics and molecular biology

CV 02: Kirsi-Marja Oksman-Caldentey

Chief Research Scientist and Head of Plant Biotechnology Research
VTT Technical Research Centre of Finland
Espoo, FI
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.

CV 03: Leena Mannonen

Commercial Counsellor
Ministry of Agriculture and Forestry, Helsinki, FI
leena.mannonen@mmm.fi



Career

Commercial Counsellor at the Ministry of Agriculture and Forestry, Finland (since 2008)
Commercial Counsellor at the Ministry of Trade and Industry, Finland (2002-2007)
Senior Research Scientist at the Food Administration, Helsinki, Finland (1997-2002)
Group Manager and senior research scientist (Plant Biotechnology) at VTT Technical Research Centre of Finland, Espoo (1985-1997)
Docent on Applied Plant Biotechnology at Helsinki University of Technology (since 1994)
Teaching Assistant of Applied Microbiology and Research Scientist, HUT (1980-1984)
MSc (chem.eng) (1979); Lic.tech (1983); Dr.tech (1993), HUT

Activities

Vice Chair of the Board of Trustees, MTT Agrifood Research Finland
Secretary General of the Novel Food Board, Helsinki, Finland
Chairman of the Board of the Food and Drink Association Research Foundation, Helsinki
Member of the Board for Gene Technology, Finland
Member of the Advisory Board on Gene Technology, Finland
Memberships in scientific associations in the field of food sciences, microbiology and plant biotechnology
The Five Year Audit of the EC Joint Research Laboratory, member of the audit team, (2000)
EU Audit Missions on GMO's and novel foods to DE (2001), EE (2002), CZ (2002), BG (2002)
Professional visit to USA under the International Visitor Program of the United States Information Agency on "Genetically Modified Organisms: Trade and Health Issues", March 7-28, 1998

Research Interests

Plant Biotechnology, biologically active substances of plant origin, food technology, applied microbiology

CV 04: Eero Vuorio

Director Biocenter Finland
University of Helsinki, Finland
eero.vuorio@helsinki.fi



Career

Director Biocenter Finland
Chancellor University of Turku in 2003-2009
In 1989 he was appointed as professor of Molecular Biology at the University of Turku.
Visiting scientist and professor at the University of Chicago, at the Swiss Federal Technical High School (ETH) in Zürich, and at the University of Texas in Houston.
M.D. and Ph.D. in Turku

Activities

Board member, Academy of Finland (6 years)
Chair Research Council for Health (6 years)
Chair of National Advisory Board for Research Ethics (6 years)
Chair European Molecular Biology Laboratory (EMBL) Council
Various expert duties at the European Commission, European Research Council and European Science Foundation

CV 05: 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

CV 06: Wilhelm Gruissem

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

CV 07: Tim 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

CV 08: Tim Willis

Head of International Relations
Biotechnology and Biological Sciences Research Council (BBSRC), Swindon, UK
tim.willis@bbsrc.ac.uk
www.bbsrc.ac.uk/international



Career

Head of International Relations and Science Outreach, BBSRC - managing

- BBSRC participation in international funding and policy programmes in the EU
- BBSRC bilateral relations with funding agencies and researchers in other countries
- Managing partner of the UK Research Office in Brussels on behalf of the Research Councils

20 years' experience in the Research Councils with posts in information technology, industrial collaboration
Secondment to the UK Foresight Programme

International activities

Strategic relations within the EU and other priority partners including CHI, JAP, USA, IND, NZ, AUS, CAN, BRA and research for development
Developing partnerships beyond researcher – researcher linkages to sustainable agency – agency collaborations and co-funding
BBSRC and INRA are leading on developing an EU Joint Programming Initiative in Agriculture, Food Security and Climate Change

CV 09: 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.

CV 10: Shivaji Pandey

Director Plant production and protection Division
Food and Agriculture Organization (FAO) of the United Nations, Rome, IT
Shivaji.Pandey@fao.org



Career

Director Plant Production and Protection Division (AGP) at FAO (since 2006)

Director Agricultural Support Systems Division (AGS) at FAO (2005 – 2006)

Over 30 years in international agricultural research and development as

Scientist, Regional Representative for South America, Director of Maize Program, Director of African Livelihoods Program at International Maize and Wheat Improvement Center (CIMMYT) in Mexico and in its outreach programs.

MS and Ph.D. in Plant Breeding and Plant Genetics from the University of Wisconsin, USA

Born and raised in India, where he also had his early education

Honours

D. Sc. from the Maharana Pratap University of Agriculture and Technology (India)

Fellowships to the American Society of Agronomy and to the Crop Science Society of America

Special recognitions from the governments of Bolivia, Colombia, Ecuador, and Vietnam

Activities and research interest

- Chair Inter-Departmental Working Group on Biotechnology at FAO which integrates research, development, and policy work on biotechnology of the Organization for agriculture, forestry, and fisheries
- At FAO lead work on increasing production and quality of all food and non-food crops to enhance food security and livelihoods especially of rural and urban poor: Conservation and sustainable use of plant genetic resources, seed production, development & deployment of improved cultivars, use of appropriate agronomic practices, cropping systems, conservation agriculture, organic farming, integrated pest management etc.; International Treaties and Commissions e.g. ITPGRFA (International Treaty for Plant Genetic Resources for Food and Agriculture), GPA (Global Plan of Action), IPPC (International Plant Protection Commission), International Code of Conduct on Pesticides, Rotterdam Convention.

- Authored or co-author of over 150 publications

5th EPSO Conference, Olos 2010 – Invited Speaker CVs – by 16.03.2010

CV 11: 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

Author of many scientific papers and UN publications, and several book chapters and reference books.

CV 12: 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 Tenured Associate Professor of Agronomy, Kansas State University as sorghum breeder
- 10 years Director Genetic Resources and Principal Scientist, Genetic Resources, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)
- 5 years Director 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

CV 13: 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

CV 14: Jethro Schiansky

Policy Officer
The European Landowners' Organization (ELO), Brussels, BE
environment@elo.org www.elo.org



Career:

2007-present, Policy officer at European Landowners Organization (ELO), Brussels
2006- 2007 Lawyer at Graf von Westphalen, Brussels
Studied law at the University of Cardiff, Wales, and at the University of Innsbruck, Austria

Research Interests:

The interrelationships between agricultural production, environmental protection and the role of Europe's land managers in climate change mitigation and adaptation. The ELO strives, through leading studies and through its lobbying action, to find ways to help mould European agricultural and environmental policies to achieve food and environmental security. Most recently Jethro coordinated a task force analyzing the nature and scale of, and potential for the provision of public goods (that represent a pervasive market failure) by Europe's land managers through the post-2013 Common Agricultural Policy (CAP). He is currently working on the relationships between soil biodiversity and conventional agricultural practices.

Recent Publications:

*Day Peter, Künast Christoph, Riffel Michael, Schiansky Jethro, **Agriculture and Biodiversity**, June 2009*
*Schiansky Jethro, Food and Environmental Security – an integrated Policy matching today's global realities, **Countryside**, March 2009, 7-8*

Session co-sponsored by Syngenta

CV 15: 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.

CV 16: 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.

CV 17: 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.

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

CV 19: 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

VanBekkom 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.

CV 20: 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

CV 21: 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

CV 22: 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.

CV 23: 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.

CV 24: 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

CV 25: Alfred William Rutherford

Research Director, CNRS & Visiting Professor, University of London
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



Career

2007-present Head Laboratory of Molecular Bioenergetics and Photosynthesis
2005-08 Visiting Research Fellow / Professor, Australian National University, Canberra
2001-07: Head Laboratory of Biophysics of Oxidative Stress SBE, DBCM, CE Saclay, FR
2000-04: Director of National Research Program (GDR) on "Photosynthèse Membranaire"
2000-07 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
1983-88: Chargé de Recherche, CNRS, Dépt.de Biol., Serv. Biophys CEN Saclay, France
1982-83: Post Doc, Dépt. de Biologie, Service de Biophysique, CEN Saclay, France
1982 & 1983: Visiting Scientist, Solar Energy Lab, RIKEN, Inst Phys/Chem Saitama, Japan.
1979-81: Post Doc (NIH & NSF), Dept. of Biophys and Physiol, U. of Illinois, Urbana, USA
1976-79: 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 interests

Photosystem II, one of the major chlorophyll-containing proteins of photosynthesis, is the enzyme that photolyzes 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. 161 publications in refereed Journals h-factor 52

CV 26: Roberto Bassi

Professor
Dipartimento di Biotecnologie, Università di Verona, Italy
roberto.bassi@univr.it



Career

2005- Prof. Plant Physiology, Università di Verona, Faculty of Sciences, Verona
2002-2005 Prof. Biochemistry Molecular Biology, Univ Marseille, Faculty of Sciences
1993-2002 Assoc. Prof Plant Physiology, UNIVR, Faculty of Sciences, Verona
1986- 91 Senior Lecturer Plant Physiology, Faculty of Sciences, Padua
1982-85 Lecturer Botany, faculty of Sciences, Padua.

Research Interests

Regulation of photosynthesis in plants algae and mosses is very efficient in ideal conditions while under stress most of the light energy is dissipated into heat due to the activity of specific genes. Such genes might be key to increasing light conversion efficiency of unicellular algae in photo-bioreactors for biomass production and thereby enable economically sustainable algae cultivation for bio-fuels. The lab aims to engineer the algae light harvesting apparatus to adapt to photobioreactors - high light and high optical density. This activity corresponds to crop domestication by horticulturalist and farmers in the early phase of agriculture. We believe that algae "domestication" is a precondition for their industrial use, neglected so far.

2-4 Recent Publications

Dall'Osto L., Cazzaniga S. Havaux M. and Bassi R. (2009) Enhanced photoprotection by protein-bound xanthophyll vs free pools: a comparative analysis of Chl b and xanthophyll biosynthetic mutants. **Molecular Plant**. 2010 Jan 25. [Epub ahead of print] PMID: 20100799
Mozzo M., Mantelli M., Passarini F., Caffarri S., Croce R. and Bassi R. (2009) Functional analysis of gene products encoding photosystem I light-harvesting complexes (Lhca) in *Chlamydomonas reinhardtii*. **Biochim. Biophys. Acta** 1797(2):212-221
Arnoux P, Morosinotto T, Saga G, Bassi R, Pignol D.(2009) A structural basis for the pH-dependent xanthophyll cycle in *Arabidopsis thaliana*. **The Plant Cell**. 2009 21(7):2036-44.

CV 27: 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, Assisant 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 intersests

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)

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)

CV 29: Tomas Vanek

Head Laboratory of Plant Biotechnologies
Academy of Sciences CZ, Prague, CZ
vanek@ueb.cas.cz

**Career**

Head Laboratory of Plant Biotechnologies, Joint Laboratory of Institute of Experimental Botany AS CR and Research Institute of Crop Production
RNDr., PhD

Activities

He is a vice-chairman of COST Action 859 „Phytotechnologies to improve food chain safety and promote sustainable land use management“, member of management committee of COST Action 926 “Bioprofit”, Expert of Czech Republic in Cost Technical Committee for Agriculture, Food and Biotechnology and representative of Czech Republic in EPSO.

Research interest

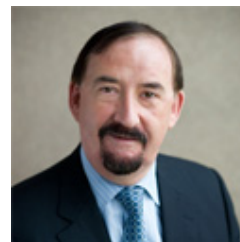
Since 1981 until now his scientific interests are connected natural products chemistry especially with studies of *in vitro* plant cell cultures and plants, mainly their utilization for production and biotransformation of biologically active secondary metabolites as well as syntheses of selected compounds and their analogues (taxol), and degradation (or accumulation) studies of xenobiotics (nitroaromatics, pesticides, toxic metals, radionuclides), including both small and large-scale applications.

Recent publications

Over 100 original papers, 1 book, 4 book chapters, 25 invited plenary lectures and 12 patent applications

CV 30: Maurice Moloney

Director and Chief Executive
Rothamsted Research, UK
mmmolone@ucalgary.ca



Career

Founder and Chief Scientific Officer SemBioSys, Calgary, CAN (2001-2010)
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

CV 31: Kazuki Saito*Sponsored by VTT Technical research Centre Finland*

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 publicationsOkazaki, 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)**CV 32: 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 publicationsRademacher, T; Arcalis, E; Stoger, E: Production and localization of recombinant pharmaceuticals in transgenic seeds. *Methods Mol Biol*. 2009; 483:69-87Abranches, 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):649-658Floss, 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):379-391Pires, AS; Cabral, MG; Fevereço, 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

CV 33: 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.

CV 34: Bruce Osborn

Professor of Plant Ecophysiology
University College Dublin-UCD School of Biology and Environmental Science, Dublin, IE
Bruce.Osborne@ucd.ie



Career

2005-2009 Head of Subject (Botany), University College Dublin
2005 Head of Botany Department, University College Dublin
2003-Professor of Plant Ecophysiology, University College Dublin
1993-2003 Senior Lecturer, University College Dublin

Research Interests

Plant and environmentally-related topics at cell, leaf, whole plant, canopy, ecosystem scales (recent focus on carbon sequestration, greenhouse gas mitigation in forest & cropland ecosystems, impact of climate change)
Long term interest in biology of *Gunnera-Nostoc* symbiosis (evolutionary significance, develop novel crop plant-cyanobacterial associations).

Recent investigations directed at a more comprehensive and quantitative assessment of the impact of invasive plants on ecosystems and how this will be influenced by climate change

Recent Publications

Osborne, B. A., Bergman, B. 2009. Why does *Gunnera* do it and other angiosperms don't? An evolutionary perspective of the *Gunnera-Nostoc* symbiosis. *Microbiology Monographs* 8, 207-224.
Gioria, M., Osborne, B. A. 2009. Assessing the impact of plant invasions on soil seed bank communities: use of univariate and multivariate statistical approaches. *Journal of Vegetation Science* 20, 547-556.
Gioria, M., Osborne, B. A. 2010. Similarities in the impact of three large invasive species on soil seed bank communities. *Biological Invasions* DOI: 10.1007/s10530-009-9580-7.
Davis, P. A., Clifton-Brown, J., saunders, M., Lanigan, G., Wright, E., Fortune, T., Burke, J., Connolly, J., Jones, M. B., Osborne, B. 2010. Assessing the effects of agricultural management practices on carbon fluxes: spatial separation and the need for replicated estimates of net ecosystem exchange. *Agricultural and Forest Meteorology* (in press)

CV 35: 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.

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..

CV 37: 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, Minwuyelet 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

CV 38: 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/



Career

2004-08: Associate Professor, University of British Columbia, CAN
2000-04: 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

CV 39: 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
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)

CV 40: Chiara Tonelli

sponsored by Bayer CropScience-BioScience

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

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

CV 41: 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.

CV 42: 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.

CV 43: Franco Miglietta

Research Director
Institute of Biometeorology, National Research Council, Firenze, Italy
f..miglietta@ibimet.cnr.it



Career

Research director at the Institute of Biometeorology of CNR, in Firenze (1999 -)
Post-graduate fellow Italian National Research Council 1982-84, scientist (1984-)
Graduated at Firenze University in 1980; PhD in Agricultural and Environmental Sciences Agricultural University of Wageningen (NL) in 1992

Honours

Member of the Accademia dei Georgofili, Firenze

Activities

Initial interest in plant competition and herbicide effects on crop/weed interactions. Multitemporal analysis algorithms for satellite image analysis and crop recognition. Integrated system analysis and in particular in crop modelling. Impact of climate change on vegetation and crops in natural CO₂ springs and FACE experiments. Active in Carbon Cycle research, he developed, together with NOAA-ATDD, the first European environmental research aircraft capable of measuring surface energy and mass exchange using airborne eddy covariance technique.

Research Interests

Carbon Cycle Research, Atmospheric feedback, Effect of rising atmospheric CO₂ on vegetation, C-sequestration technologies in agricultural systems

2-4 References

Miglietta F, Gioli B, Brunet Y, et al. (2009) Sensible and latent heat flux from radiometric surface temperatures at the regional scale: methodology and evaluation. *BIOGEOSCIENCES* Volume: 6 Issue: 10 Pages: 1975-1986

CV 44: 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.

CV 45: 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).

Sthultz, 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.