



FESPB*Alert*

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FESPB Congress

The **14th FESPB Congress** will be held in the historic and beautiful city of **Krakow, Poland**, and registration for the Congress is now OPEN.

This magical city, on the banks of the Wisla (Vistula) River, has one of the best-preserved medieval city centres in Europe, with dozens of churches covering almost every architectural period and surrounded by monasteries and abbeys

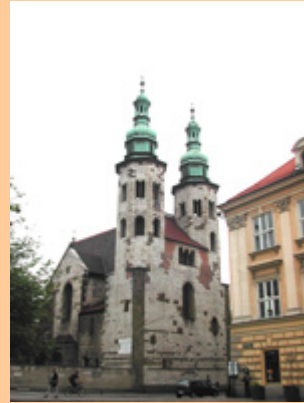


Laid out in 1257, the Main Market Square is one of the largest medieval market squares in Europe. It is dominated by the sixteenth-century Sukiennice (Cloth Hall), which continues to operate as a trading centre with lively market stalls and pavement cafés in and around the building.

Krakow's cultural richness has long been recognized, and quite rightly it was chosen as the European City of Culture in 2000. Almost a quarter of Poland's museum holdings can be found here and the city's cultural scene is without equal.



13th century Basilica of the virgin Mary



11th century Romanesque church of St Andrew

A student population of almost 100,000 ensures a lively atmosphere throughout the city. Added to this are the increasing numbers of tourists who have discovered Krakow; as a result there are even more bars, cafés and restaurants, making the city centre a very attractive place to relax and socialise.



Attractions around the city's main square

As well as a rich cultural heritage, the city has an active intellectual heart, with nine different Universities located here, including the Jagiellonian University - the oldest in Poland, dating from the 14th century. The FESPB congress promises to further enhance the academic profile with a rich programme featuring many international speakers, and plenty of opportunities for presentations from FESPB members.

All information regarding the above can be found at the Congress website:

<http://www.zfr-pan.krakow.pl/konf/>

If you plan to attend, you can download the PRE-REGISTRATION FORM from the website, and after filling in, send by fax or by post to the Congress Secretariat. You can also pre-register ON LINE, although this should be confirmed by sending a form as above. When using the on line facility you will need to give a login name and password. By return email you will receive an authorization code which should be used (only necessary once) to access the Congress web site.

Research news

Cloning of trees in Russia

ago genetic engineering got deep reach into pharmacological and food industry, agriculture and medicine. The trees are no exclusion, but genetic engineers started to deal with them approximately ten years later than with other objects: the trees are too difficult for genetic investigations and manipulations. The wood plant genetic engineering activities are now in full swing in different countries of the world, including Russia. When improving trees through classical selection methods, the researchers first of all focus on the growth rate, wood quality, resistance to vermin and diseases, herbicides, salts and other stresses. Genetic engineering allows to do the same but much quicker. Russian scientists have obtained several accelerated growth wood species.

Specialists of the Siberian Institute of Physiology and Biochemistry of Plants, Northern Branch, Russian Academy of Sciences (Irkutsk), have applied classical methods and transformed via the corn gene ugt the aspen, poplar and Cembra pine (the latter being traditionally miscalled cedar). This gene codes the synthesis of the enzyme, which ensures the high level of vegetative hormone auxin. Auxin is necessary for the plant growth and development, and the trees with the respective corn gene do develop much quicker. Such plants could be used in the future in dedicated plantations with a short turnus. These plantations could be set up around woodworking enterprises. Such plantations will save primeval taiga woods from felling and would allow to reduce transportation costs for wood delivery to woodworking sites.

The researchers from the Research Institute of Wood Genetics and Selection (Voronezh) applied a different technology of getting trees from the cell culture. They have chosen the most valuable species - Karelian birch. The researchers selected the trees with the most beautiful patterned timber, got the cell culture – calluses - from their stems, and cultivated the birch-trees from the calluses. The long-term field trials have proved that the cloned trees grow well, within 3-4 years their stems become tuberos or ribbed – these are the exterior signs patterned timber. When the tree is 5-8 years old, all the birch-trees without

exception are patterned. If the Karelian birch is cultivated from the seeds under a common technology, the signs of patterned timber appear much later – at the age of 10 to 12.

The ability to manipulate genes is one of the greatest achievements of the 20th century biology, but it also imposes serious responsibility on the scientists for possible environmental consequences, which should be taken into account along with the growing economic benefits from transgenes. The prospects for utilization of accelerated development plants look promising, but a lot of Russian researchers advise that thorough analysis should be made of possible consequences before new technologies are launched into series. Accelerated growth trees may exhaust the soil quickly, and genetically modified pollen can change the natural structure of forest population. So far neither Russia or other countries have convincing enough responses to these questions.

Watching over the Amazon by remote sensing

Dispersal of GM seeds

One of the potential risks associated with the wider release of genetically modified crops and their use in mainstream agriculture is the hybridisation of transgenic plants with their wild relatives. Previous studies on mechanisms for the escape of transgenic material into the wild population have focused on pollen dispersal as the main route, but new work by scientists at the Université de Lille in France to be published in *Proceedings B*, a Royal Society journal, highlights the role of seed dispersal - inadvertently assisted by human activity - in the potential wide scale dispersal of transgenic material with major implications for the siting of transgenic crops.

Sugar beet

"Gene flow and interbreeding from cultivated to wild plant populations has important evolutionary and ecological consequences," says Dr. Jean-François Arnaud of the Laboratoire de Génétique et Evolution des Populations Végétales of Lille University. "This requires detailed investigation to assess the risk of transgene escapes into natural ecosystems."

Sugar beets are of particular interest because they are cross compatible with their wild relatives, for example the sea beet, and crop-to-wild gene flow is likely to occur via "weedy" hybrid plants locally infesting fields.

"In our study we investigated the potential for "escape" of transgenic material by analysing a set of molecular markers in a population of weed beets within a field crop of commercially grown sugar beet, a natural coastal population of wild sea beet situated over 1.5 km away and a linking "contact zone" along a river where a possible mixture of wild and weedy beets could exist," says Dr. Arnaud.

The experiment was conducted in the Wimereux area near Boulogne in Northern France.

Unexpected result

DNA from samples from plants harvested in the three areas was extracted and purified and individuals genotyped using eight molecular markers to establish the extent of gene exchange. There was clear evidence of weedy beets originating from the commercial crop field in the riverside "contact zone" some 1.5 kms away from the field.

"Contrary to classical expectations we found that gene flow through pollen was limited," explains Dr.

Arnaud. "However we found that weedy beets can act as a crop-to-wild bridge by escaping from commercial beet fields to wild populations via accidental seed flow. Our results highlight the likelihood for transgene escape resulting from seed dispersal events."

Human culprits

Dr. Arnaud believes that the main mechanisms for seed flow in the studied area are human activities.

"Accidental transport of seeds within soils carried on motor vehicles, or by other normal agricultural activities is the best explanation," says Dr. Arnaud. "Our findings are consistent with the hypothesis of human-mediated long-distance dispersal."

"Once wild and weedy beets have been brought close together by seed dispersal hybridization can occur by subsequent pollen dispersal," continues Dr. Arnaud.

Two important implications arise from this work. "Firstly it reinforces the agricultural economic issues caused by increased invasiveness of any future transgenic weed beets within the agricultural system - originally highlighted by Benoit Desplanque and colleagues - and secondly it implies that we must be very cautious regarding the location of transgenic commercial sugar beet field," concludes Dr. Arnaud. "If GMO sugar beets are established in regions where populations of the wild form also occur, then gene flow

between wild and cultivated relatives is almost inevitable."

Examination of images recorded at different dates has allowed an assessment of the relative proportions of spontaneously cleared areas. Between 1958 and 1988 pioneer fronts due to small-scale clearances advanced at a rate of 0.2% per year in the Saint-Georges de l'Oyapock region, although fallowing has led to forest recolonization in some previously-cleared plots. However, the expansion of pioneer fronts in Brazil advanced at a rate of 1.2% per year between 1988 and 1998 on the site studied in the State of Para, this time without apparent reforestation processes - the clearances appearing to be permanent.

MORE GM NUFFIELD

Genetically modified crops could help small-scale farmers in developing countries according to the Nuffield

Council on Bioethics in *The use of genetically modified crops in developing countries*, a Discussion Paper

published today. The Nuffield Council is inviting comments on the draft paper which aims to contribute to

'GM Nation?', the public debate organised by the government in the UK during the next six weeks.

In 1999, the Nuffield Council recommended that there was a moral imperative for making GM crops

readily and economically available to people in developing countries who want them. "We have reviewed

the scientific developments since our last report as well as recent trends in poverty and hunger in

developing countries. In the light of this evidence, we have no hesitation in affirming – and expanding –

our previous conclusions," said Dr Sandy Thomas, Director of the Nuffield Council.

"We recognise that we are discussing only part of a much larger picture," continued Dr Thomas. Food

security and the reduction of poverty in developing countries are extremely complex issues. "We do not

claim that GM crops will eliminate the need for economic, political or social change, or that they will feed

the world. However, we do believe that GM technology could make a useful contribution, in appropriate

circumstances, to improving agriculture and the livelihood of poor farmers in developing countries."

The impact of European Union policy

The draft considers developments in regulation and trade and concludes that European agricultural policy

is likely to restrict severely the freedom of choice of farmers in developing countries. Many developing

countries do not have the necessary infrastructure to meet strict EU requirements for labelling and traceability of GM crops. Additionally, there is concern that even planting GM crops only for domestic use might jeopardise an export market for non-GM crops. “We believe EU regulators have not paid enough attention to the impact of EU regulations on agriculture in developing countries,” and we recommend that the UK government and non-governmental organisations (NGOs) should monitor this closely,” said Dr Thomas.

European scepticism may also deter people in developing countries from adopting GM crops, particularly when the risks of GM crops are exaggerated. “The current evidence from safety assessments of GM crops does not suggest any significant risk to people who eat them, and we believe it is unhelpful to suggest otherwise,” said Professor Derek Burke, a member of the Working Group.

Food Aid

Last year, two million people in Zambia were threatened with starvation. However, the Zambian government refused food aid donations from the US because the maize was genetically modified. The Nuffield Council discusses issues behind this controversy and recommends that developing countries must be given a genuine choice between GM and non-GM food aid. When developing countries prefer to receive non-GM food aid, the World Food Programme and other food aid organisations should purchase such grain, wherever possible.

Golden Rice

Scientists claim that Golden Rice, modified to produce β -carotene, could help prevent vitamin A deficiency in Asia, but opponents question whether it would actually achieve this aim. The Nuffield Council recommends that it is essential to continue research to establish how effective the approach might be. Golden Rice could make a valuable contribution where other sources of vitamin A are not easily available, but it should be compared with alternative methods of improving micronutrients in the diet, for example providing vitamin supplements through public health programmes.

Case by case assessment

The possible costs, benefits and risks associated with particular GM crops can only be assessed on a case by case basis. “It is important not to generalise,” said Professor Michael Lipton, a member of the Working Group. “However GM crops do, in some cases, have considerable potential to increase crop yields. There is an ethical obligation to explore these benefits responsibly.”

Small-scale farmers in China and South Africa are already benefiting from GM cotton, modified to resist the cotton bollworm. Another example cited is research to genetically modify bananas to resist the Black Sigatoka fungus. Untreated, this fungus can reduce banana yields by as much as 70%. Currently, farmers spend one quarter of the production costs on fungicides, and farm workers may risk their health by applying the spray, up to 40 times per year. A GM banana, resistant to the fungus, could eliminate these problems, reducing the amount of fungicide required and, at the same time, increasing yields.

Genetic modification could also be used to address specific agricultural problems, such as drought and salty soils, where other methods of plant breeding have not proved successful. However, much GM research currently serves the interests of large-scale farmers in developed countries. There is also concern that only a few commercial companies control most of the seeds, chemicals and research technology. The Nuffield Council recommends that additional resources should be committed by governments and the EC to fund a major expansion of GM-related research relevant to the needs of small-scale farmers in developing countries.

The Council is inviting views on the draft version of the Discussion Paper, by 8 August 2003. “We look forward to hearing comments from members of the public, stakeholders and experts. We would particularly welcome comments from people in developing countries,” concluded Dr Thomas.

Other news

World’s largest bloom

The world's largest bloom can be admired at the Botanical Gardens of the University of Bonn, where it has just opened. In addition to the enormous size of this inflorescence, which can reach a height of over two-and-a-half metres, the Titan Arum (*Amorphophallus titanum*) is also characterised by a powerful and foul stench given off during flowering. This year might even see an all-time world record, since the tuber, or corm from which inflorescence grows, now weighs 80 kilograms, twice as much as during the last flowering that occurred three years ago. Last time Bonn's Titan Arum had the second largest bloom, only just missing the world record, when it reached a height of 257 centimetres. The documented record is still held by a specimen grown in the Dutch town of Wageningen, which shot up to a height of 267 centimetres.

For the latest news on Bonn's Titan Arum visit:

<http://www.botanik.uni-bonn.de/botgart/amorpho2003.html>

Partnerships between science and society

Until 2 June 2003 the European Commission's invitation for ideas on how to draw closer links between scientists, society and policy makers through EU-funded research is still open for input from individuals and organisations, including the media and the non-government sector. This consultation with Europe's research community and its citizens will provide an input to the planning of future activities and to possible calls for proposals for the distribution of the 80 million euro for funding science and society actions under the EU's Sixth Framework Programme (2002-2006).

Science and society is a new theme in Community research; the Commission is not only allocating funding, but for the first time is undertaking an open consultation with those concerned with issues of scientific expertise and advice, research ethics and responsible application of new technologies; the role of women in science; and the need to make science fun for the young. Don't miss this first time opportunity to take part in the dialogue and find potential partners for EU research funding!

All information is available on the Community Research and Development Information Service (CORDIS)

at: http://fp6.cordis.lu/eoi/ss/eoi_form.cfm

SEB Travel Grants

The next deadline for applying to the Society for Experimental Biology for travel grants (for young scientists) is 30 June 2003. Full details at the web site:

www.sebiology.org

Positions available

Full details of these positions are posted on the FESPP website on the Jobs and Studentships pages (<http://www.fespp.org/jobs.asp>)

Plant Biology MSc programme

Plant Biology at Utrecht University runs a two-year MSc programme that trains and educates plant biologists at a high academic level. Masters students will, individually or in a team, be challenged to solve fundamental and applied plant biological problems. To this end students are shown the most modern experimental and mathematical methods and techniques. Furthermore, students will also learn to apply molecular and genetical tools to a wide range of biological problems.

All courses and practical training are given in English by a team of internationally distinguished scientists.

More information on the programme and registration can be found on the flyer or on the website www.bio.uu.nl/plantbiology

Molecular Plant Physiology

Postdoctoral position, Cologne, Germany

The Botanical Institute of the University of Cologne invites applications for a PostDoc position in the field of Molecular Plant Physiology. The focus of research will lie on functional genomics of membrane transporter genes from *Arabidopsis thaliana*. Applicants should have fundamental experience in Molecular Biology, knowledge of plant metabolism and should enjoy working on biochemical and physiological topics. The positions will be confined at first to three years, the salary will be according to BAT IIa. Please post your applications (including CV and a short description of your working experience) to:

Prof. Dr. U.I. Flügge

Universität zu Köln

Botanisches Institut

Gyrhofstrasse 15

D-50931 Köln

Email: ui.fluegge@uni-koeln.de

<http://www.uni-koeln.de/math-nat-fak/botanik/bot2/agflue/HOME/index.htm>

Carbon and Oxygen Isotopes in Photosynthesis

Post-doctoral position, Italy

A post-doctoral position is available from June 2003 to work at CNR, Porano (TR), Italy in the photosynthesis and stable isotope laboratory on the study of "carbon and oxygen isotope analysis in photosynthetic products, metabolic partitioning and sources and sinks", within the framework of the European Community Program NETCARB. The 1 year position is intended to provide training in physiological ecology of photosynthesis, metabolism and stable isotope techniques. Candidates are expected to possess expertise in photosynthesis, gas exchange, knowledge of IRMS (stable isotope ratio mass spectrometry) techniques. Background in biogeochemical cycles and ecosystem discrimination is also appreciated. For further information and to discuss the program please contact:

Dr. Enrico Brugnoli
 CNR, Institute of Agro-Environmental Biology and Forestry
 Via Marconi 2
 05010 PORANO (TR), Italy
 Phone: (+39) 0763-374689
 Fax: (+39) 0763-374330
 E-mail: brugnoli@ibaf.cnr.it

The age limit for applicants is 35-years or lower. Applicants must be EU citizen or citizen of any EU Associated State or, in alternative have resided in an EU country or Associated State for at least 5 years. Applicants should not be Italian citizen or have resided and worked in Italy for more than 12 months in the last 2 years. Applications (to include a curriculum vitae, summary of research experience and the names, addresses and telephone numbers of three academic referees) should be sent at the earliest convenience to Dr. Enrico Brugnoli at the above address.

Role of Sphingolipids in the Secretory Pathway Of Plants

Postdoctoral position, Bordeaux, France

Available September 2003 for 12 months in the Laboratoire de Biogénèse Membranaire, CNRS-Université Bordeaux II. Extension to 18 months possible. Salary: 2150 euros per month.

Research in UMR 5544 deals with regulation of membrane lipid metabolism in plants and its role in the secretory pathway, membrane homeostasis and wax lipid production. The project will focus on the role of lipids and enzymes of lipid metabolism in the structural organization and function of the ER-Golgi-Plasma membrane pathway of plant cells. We will particularly study Glucosylceramide and the ceramide glucosyltransferase.

Glucosylceramide is a sphingolipid which accumulates in the plasma membrane and can be engaged in specific chemical links with sterols and other membrane components to form membrane domains called lipid rafts. Such domains lead to lipid and protein

segregation which is a key step in lipid and protein delivery in the secretory pathway and assembly as functional domains at the cell surface.

The postdoctoral program will concern studies on the physiological role of Glucosylceramide in the secretory pathway through different steps:

- * Development of Glucosylceramide deficient mutants of *Arabidopsis thaliana* (salk mutants, RNAi approach, inducible mutants&).
- * Formation and composition of lipid rafts in these Glucosylceramide deficient mutants.
- * Analysis of the targeting of Golgi and Plasma membrane proteins in Glucosylceramide deficient plants (either by expressing protein markers in the mutants or by blocking glucosylceramide synthesis by specific inhibitors in wild plants).

The postdoctoral candidate is expected to have some experience in transgenic approaches in plants and protein expression, and the classical background in biochemistry and molecular biology.

Contacts:

Patrick Moreau (33 5 57 57 16 81 ; pmoreau@biomemb.u-bordeaux2.fr)

René Lessire (33 5 57 57 10 45 ; Rene.Lessire@biomemb.u-bordeaux2.fr)

Auxin Signalling Pathways

3 years Post-Doc position Gif sur Yvette, France

Position immediately available in the context of the EC-Research Training Network: ACCY

The purpose of ACCY is to unravel the auxin signalling pathways that mediate the control of cell growth. The programme will focus on identifying the molecular mechanisms underlying auxin action on the cell cycle in growing cells as well as quiescent cells which re-enter into division under developmental or environmental constraints. ACCY brings together seven participants which have accumulated a wide spectrum of complementary tools and expertise for analysing auxin signalling cascades and the plant cell cycle at the molecular, cellular and whole plant levels.

The overall aim of ACCY is to improve our understanding of the genetic and molecular control of cell division by the plant growth substance auxin in various cell and plant systems using a combination of modern biochemical, genetic and molecular cell biology approaches.

Three key objectives can be defined:

Objective 1: Studying the auxin signalling pathway involved in the control of cell growth

Objective 2: Identifying the molecular mechanisms of auxin action on the cell cycle

Objective 3: Investigating the mechanisms promoting the re-entry of quiescent cells into division

The candidate will search for novel auxin targets and will contribute to the functional characterisation of the auxin-binding protein ABP1, following work already in progress in the lab. Background in molecular and cellular biology, genetics and/or plant development is required. An expertise in genomics and bioinformatics would be an advantage but is not conditional. Collaborative work will be developed with most partners of the Research Training Network ACCY and specific training will be proposed in the context of the network.

Location: Gif sur Yvette, 25 km south of Paris, France

Condition: Due to EC-RTN rules, the position is offered to a PhD researcher from the EC or associated States but not France.

Contact:

Dr C. Perrot-Rechenmann

Institut des Sciences Végétales (ISV), CNRS, Avenue de la Terrasse Bat 23,
91198, GIF SUR YVETTE, Cedex

e-mail : catherine.rechenmann@isv.cnrs-gif.fr

phone: 33 1 69 82 35 88

Impacts of CO₂ and Climate on C₄ Plant Fitness

PhD position, Sheffield, UK

A NERC-funded postgraduate studentship is available in the Department of Animal and Plant Sciences, University of Sheffield, England, U.K. (Supervisor: Colin Osborne)

Geological evidence has recently cast uncertainty on the long-held theory that C₄ plants evolved in response to a decline in atmospheric CO₂. This PhD project will address the problem for the first time using an experimental approach, utilising state-of-the-art growth facilities at Sheffield. It will provide a timely evaluation of the extent to which a photosynthetic benefit of C₄ plants over C₃ contemporaries in low CO₂ translates into an increase in fitness. Coupled with field transplant experiments along an altitudinal gradient in South Africa, these experiments will give important insights into the selection pressures acting on C₄ plants. The student will have opportunities for fieldwork in South Africa, and will be based in a department rated 5* in the latest RAE, with a breadth of research in molecular and ecological physiology.

Further information and details of how to apply for this PhD can be found at:

<http://www.shef.ac.uk/aps/graduate-information/graduate-opportunities.html>

Forthcoming meetings

In the wake of the double helix: From the green revolution to the gene revolution:

Bologna, Italy, May 27 to 31, 2003.

The three key-note speakers will be Dr. Borlaug (Nobel Peace prize laureate) Prof. Swaminathan and Prof. Khush (the so-called "fathers" of the green revolution), many other excellent scientists will present and debate their views on the possible role of biotechnology in sustaining the future of agriculture and mankind. More information on the Congress is available at:

<http://www.avenuemedia.it/linkCONG/Green-Gene.html>

Transposition, Recombination and Application to Plants

Iowa, June 5-8, 2003

(<http://www.bb.iastate.edu/~gfst/phomepg.html>)

The 5th Annual Plant Sciences Institute Symposium, SPONSORED BY the Department of Biochemistry, Biophysics and Molecular Biology, Iowa State University, Ames, IA and the Plant Sciences Institute, Iowa State University, Ames,

The meeting will combine the biology of plant transposons and the applications of transposons and other recombination mechanisms; including advanced transposon tagging systems, and potential uses of transposon-mediated recombination reactions for modifying plant genomes. Both DNA- and RNA-elements will be dealt with at the meeting, although more time will be devoted to DNA elements. The symposium will cover the following areas: Transposon biology: interactions between native elements and their hosts; How transposons have shaped plant genomes; Regulation of transposition; Transposition mechanisms; Transposon tagging; and Applications of transposon-mediated recombination for plant genome modifications.

ISU Symposia attract a world-wide audience, with a broad mix of principal investigators, postdocs, and graduate students. The atmosphere is informal and the format allows for extensive discussion both during and between sessions.

REGISTRATION COSTS:

Advance registration (until May 5): \$450 (regular), \$325 (students and postdocs).

Registration after May 5: \$500 (regular), \$375 (students and postdocs).

Studies of Flux-partitioning, Allocation and Translocation with Stable Isotope Labelling and Measurements in Mesocosms

Freising (Germany), 2nd - 6th June 2003

The registration form for the Summer School is on NETCARB web page.

<http://www.wzw.tum.de/netcarb/>

Information and registration can be found on the website,

<http://www.spps.kvl.dk/congress2003>

7th International Congress of Plant Molecular Biology

Barcelona, Spain. 16 – 21 June, 2003

<http://www.ispmb2003.com>

Conference on Isotope Effects

Uppsala, Sweden, June 22-27, 2003

A multidisciplinary conference will emphasize the diversity of modern research on isotope effects in various areas of natural science with the emphasis on chemistry and biochemistry.

Details, including final call for abstracts, delegate's fee, deadline for registration, registration form and much more are available on the conference web site:

<http://www-conference.slu.se/iiec>

Contact Johanna Thyselius, Conference Secretariat, Akademikonferens, P.O Box 7059 S-750 07 UPPSALA, Sweden

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fax 018-67 35 30 int fax+46 18 673530

e-mail: Johanna.Thyselius@akademikonferens.uu.se

<http://www.akademikonferens.uu.se/>

Chemo-Systematics

Kew, London (UK), 2 - 4 July.

Contact: Monique Simmonds; e-mail: M.Simmonds@rbgkew.org.uk

and/or Renee Grayer; e-mail: R.Grayer@rbgkew.org.uk

General meeting of the French Society of Plant Physiology

Orsay, 9 - 11 July, 2003

All the main lectures and the poster sessions will be in English. The first and second circulars are also available on the site of the society www.sfpv.org

The 4th conference on Biochemistry, Ecophysiology and Population Biology of Alpine and Polar Plants

Trins near Innsbruck, Tyrol, Austria, 9 - 11 July, 2003

This conference will again offer an opportunity for scientific exchange and collaborations among scientists interested in Alpine and Polar Plant Biology. One aim of the conference is to connect high mountain plant research with studies on polar plants especially in the fields of bio-chemistry, ecophysiology and population biology. Keynote speakers will introduce the scientific themes (preliminary):

1. Stress Physiology (R. Bligny)
2. Ecophysiology (T.A. Day; R. Crawford)
3. Population Biology (U. Molau; I. Till-Bottraud)
4. Community Ecology (R. Callaway)

<http://www.ujf-grenoble.fr/JAL/trins2003/index.htm>

ASPB Annual Meeting

Honolulu, Hawaii. 26 – 30 July, 2003.

<http://www.aspb.org>

The XXI SPPS (Scandinavian Plant Physiology Society) Congress

Allinge-Sandvig, Bornholm, DENMARK 21-24 August 2003

Main topics of the congress:

The Plant Nutriome
Stress Biology
Bioimaging in Plant Biology

Invited Lecturers:

Eduardo Blumwald (USA)
Mary Lou Guerinot (USA)
Stefan Jansson (Sweden)
Jakko Kangasjärvi (Finland)
Satoshi Mori (Japan)
Nick Read (UK)
Mark Stitt (Germany)
Jens Stougaard (Denmark)
Michael F. Thomashow (USA)

Main Organizer:

Prof. Jan K. Schjørring
Department of Agricultural Sciences
Plant Nutrition Laboratory
Royal Veterinary and Agricultural University
DK-1871 Frederiksberg
Denmark

e-mail: jks@kvl.dk

SEB Symposium: membrane Trafficking in Plants

University of Glasgow, UK, 23 – 26 August, 2003

Contact: Mike Blatt. M.blatt@bio.gla.ac.uk

<http://www.sebiology.org/meetings/2003/Glasgow/index.htm>

Joint meeting of the Plant Growth Regulation Society of America and the Japanese Society for Chemical Regulation of Plants

Vancouver, British Columbia Canada. August 3-7, 2003

Sessions on: molecular aspects of plant growth regulation, fruit maturation, PGR uses in tree and woody plants, and applied PGR research.

International Conference on Phloem Transport

Bayreuth, Germany. August 31 - September 5, 2003

Sessions include

1. Development and cell biology of phloem, differentiation, structure, ultrastructure.
Speakers: K. Oparka, Dundee and A. Van Bel, Giessen
2. Source-sink relationships, assimilate metabolism, phloem loading and unloading, regulation, interactions.
Speakers: N. Sauer, Erlangen, J. Patrick, Newcastle
3. Phloem pathogens and parasites affecting phloem performance, viruses, bacteria, endophytes, aphids, phytoparasites.
Speakers: B. Ding, Columbus, J. Pritchard, Birmingham
4. Phloem transport of macromolecules and signalling substances, proteins, nucleic acids, siRNA, SAR, phytohormones, electric signals, pressure signals.
Speakers: W. Lucas, Davis, H. Hayashi, Tokyo
5. New techniques and new tools for phloem research, non-invasive methods, cellular analysis, new data bases, bioinformatic tools.
Speakers: U. Schurr, Jülich, R. Lemoine, Poitiers

Meeting web URL <http://www.phloem2003.de>

Registration at <https://www.bitoeck.uni-bayreuth.de/phloem/>

Plant Genomics European Meeting (GEMs) 2

University of York, UK, 3 – 6 September, 2003

Contact: kvd1@york.ac.uk

<http://www.garnet.arabidopsis.org.uk>

Chemistry and Biology of Marine Organisms

London, 21- 26 September.

Contact: Dr. V. Roussis. roussis@pharm.uoa.gr

3rd International Symposium on Dynamics of Physiological Processes in Woody Roots

Perth, Australia, 29 September-3 October 2003

Meeting web URL: <http://www.botany.uwa.edu.au/woodyroots/>

Sessions include:

1. Assimilate allocation and partitioning in roots
2. Root growth, development and turnover
3. Water flux
4. Nutrient uptake and utilization
5. Rhizosphere ecology/interactions
6. Root architecture

Keynote speakers:

Frederick (Rick) Meinzer (USDA-FS Corvallis, USA)

Mary Topa (Boyce Institute, USA)

Carol Peterson (Univ. Waterloo, Canada)

Christoph Leuschner (Univ of Gottingen, Germany)

Heinz Rennenberg (Uni of Freiberg, Germany)

Sally Smith (Univ of Adelaide, Australia)

Torgny Nasholm (SUA-Umea, Sweden)

Petra Marschner (Univ of Adelaide, Australia)

David Crowley (UC Riverside, USA)

Margaret McCully (CSIRO Canberra, Australia)

Günter Neumann (Univ. of Hohenheim, Germany)

Meine van Noordwijk (ICRAF, Indonesia)

Stephen Burgess (UC-Berkeley, USA)

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NEW!! Woody root meeting : <http://www.botany.uwa.edu.au/woodyroots/index.html>

II Symposium Island Ecosystems and Workshop on “ Island biodiversity and evolution”

5 - 9 October 2003, Funchal, Madeira Island, Portugal

10 October 2003, Funchal, Madeira Island, Portugal

SECOND ANNOUNCEMENT & CALL FOR PAPERS

The Centre for Macaronesian Studies (CEM) has the pleasure of inviting you to the “II Symposium of Island Ecosystems”, to take place in Funchal, Madeira Island, Portugal, October 5 - 9, 2003. Following-up on the success from the previous symposium, held in March 2001, the aim of the present meeting is to review the recent progress on the biodiversity, evolution and ecology of insular ecosystems, as well as on islands geology, paleoenvironments, and ecosystems management.

Deadline for submission of abstracts: **May 31, 2003**

Deadline for submission of full papers: **August 15, 2003**

Deadline for early registration fee: **May 31, 2003**

Registration and further information available at: www.uma.pt/ccbg or www.ccbg.net

Anti-inflammatory and anti-infective natural products

London (UK), Contact: 15- 16 December:

Michael Heinrich; heinrich@cua.alsop.ac.uk

Useful web sites

Gramene: A Comparative Mapping Resource for Grains

<http://www.gramene.org/>

Gramene is a "Web-accessible data resource for comparative genome analysis in the grasses. Data formerly in RiceGenes is now integrated in Gramene." The rice genome is complete for 9 of 12 chromosomes and nearing completion for the others. This facilitates research on cross-species homologies including interpretation of biochemical pathways, gene and QTL localization and descriptions of phenotypic characters and mutations. Major parts of the site include databases (genome, EST, BLAST, marker, protein, literature), maps & data for downloads, and submissions.

Celebrating 50 Years of DNA

<http://www.pbs.org/wgbh/nova/photo51/>

Rosalind Franklin was a brilliant scientist who died of cancer before the Nobel Prize was awarded for DNA. Her neglected photo 51 contained all of the secrets of DNA's inner structure: the double helix, its periodicity, the position of base pairs. This site has an excellent summary of the early work on DNA, a scientific biography of Franklin, scientific images of DNA, ribosomes, and RNA, the interpretation of photo 51

<http://www.dna50.org/main.htm>

50 years ago, the belief that DNA was the genetic material was not yet universally accepted. With only 4 bases (ACGT) it was unclear how DNA possibly contain enough information or how could it reliably be replicated for each new cell? These were the questions James Watson and Francis Crick resolved on February 28, 1953. This web site includes the original paper in Nature, a genetics timeline, an archive, more readings in genetics and DNA-inspired artwork, and a summary of social events commemorating the occasion. For full utility, the Macromedia Flash Player is required, but there is a lot of information that even old browsers can access. This site has been created by Cold Spring Harbor, where Watson spent much of his career, as Director from 1968-94 and is still the lab's President.

Crop Description web site

http://www.hort.purdue.edu/newcrop/Indices/index_ab.html

This Crop Database from Purdue University in the United States includes both common and obscure plant crop species. Links are presented as an alphabetical list of mixed scientific and common names and can also be accessed with an integral search engine. Each crop plant has its own page.

PlantZAfrica.com

<http://www.plantzafrica.com/>

This site features information about plants native to southern Africa. The site includes: Plants of SA, Vegetation of SA, Using SA Plants, From the Archives, Miscellaneous Info as well as a site search. The plants site includes images, plant information and growing the plant.

Bioinformatics.Org

<http://bioinformatics.org/>

Bioinformatics.Org is an international organization promoting freedom and open exchange of data, databases, software and supporting resources relative to particular types of biological information. Bioinformatics includes all computer and supporting technologies involved in the analysis and use of the complex life sciences data available from molecular biology studies. This website is a central component in Bioinformatics.Org's goal is to provide "...access to cutting-edge resources can be prohibitively expensive for those working individually, in small groups, at poorly-funded institutions or in developing nations."

www.australiangraduate.com

This web site provides an invaluable introduction to students contemplating study at an Australian University.

Ricin Toxin from Castor Bean Plant, *Ricinus communis*

<http://www.ansci.cornell.edu/plants/toxicagents/ricin/ricin.html>

The recent arrest of terrorists in the United Kingdom for trying to isolate ricin from the castor bean (*Ricinus communis*), has raised interest in this species popular with physiologists interested in collecting phloem sap. It is the seeds that carry the toxin. This page explains the chemical basis of poisoning and why it takes days to kill (it inactivates ribosomes). There are medical uses too such as targeting it against cancer cells.

Bio-Web: Resources for Molecular and Cell Biologists

<http://cellbiol.com/>

The Bio-Web is a scientific news/resource site for molecular and cellular biology. With a newspaper-like appearance, the left column leads to major sections, cool sites (including powerhouse sites like Science, Nature, PubMed and others), followed by more news sources.

FESPB News

KEY DATES FOR THE 14th CONGRESS (Krakow, Poland)

February 2003.....First Announcement and registration open

October 2003.....Second Announcement

March 31st, 2004.....Deadline for early Registration

March 31st, 2004.....Deadline for submission of Abstracts

FESPB Web Forum

The FESPB Web Forum is a much neglected feature of the FESPB web site. It has been set up in a way that allows letters to be posted for everyone to read and for any replies to be appended to letter so that again everyone can read it. You may be interested in two letters that have been posted on FESPB Web Forum recently by Mario de Tullio and Geert Potters. They concern the question of the increasing hostility to science by the general public and the need to educate teachers and students at schools to be more enthusiastic about science, especially plant science. To read these letters simply log on to the FESPB web site and click on 'FESPB Web Forum' button on the left side. Both letters make very interesting reading and may provoke you into writing to FESPB Web Forum yourself.

Items for FESPAlert

If you have items, job opportunities or information you think FESPP members would like to see in *FESPPAlert* or have any comments on content please e-mail me pjlumsden@uclan.ac.uk

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