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**Plant Science in the News**

**Biofuels v Forests?**

A recent study published in Science (Righelato and Spracklen, Science August 17th issue; volume 317: 902 and supplementary data on-line) has found that more carbon would be sequestered by reforestation than would be saved by growing crops for biofuels. It is estimated that 38% of cropland in Europe and 40% in the US would need to be turned over to growing crops for biofuels in order to substitute just 10% of current petrol and diesel fuel. Even at this modest level it is clear that this amount of agricultural land cannot be lost from food production. Hence, in order to meet this demand, forests and grasslands would have to be brought into cultivation. The authors estimate that the carbon released from vegetation and soils as a result of this land clearance would far outweigh the carbon saved as a result of biofuel production, even over a 30-year period. The amount of carbon saved by using woody biomass for diesel production is somewhat better than for other crops (e.g. oilseed rape, maize) and is compatible with sustainable forests. Nevertheless, the authors conclude that the
conversion of land to biofuel crops is not the best way to reduce net carbon flux to the atmosphere.

**UK to grow more opium poppies**

Farmers in the UK are being approached by a leading pharmaceutical company to cultivate opium poppies (*Papaver somniferum*) in order to meet the estimated demand for diamorphine in the event of an influenza pandemic. Diamorphine is used as a painkiller and the UK currently imports raw materials for its production from India and Tasmania. Opium poppies were first cultivated in the UK in 2003 and the area under cultivation has increased from 428 hectares to a current area of 3,000 hectares. Other European countries that currently grow opium poppies for legitimate use are France (6,000 hectares), Hungary (13,000 hectares), Turkey (70,000 hectares), Spain and Czech Republic. These figures contrast with recent estimates of 166,000 hectares of opium poppy cultivation in Afghanistan, primarily for heroin production.

**Meeting Reports**

**The Nitrogen2007 Symposium, Lancaster, UK**

The *Nitrogen2007* Symposium was held at Lancaster University from July 27-31st, 2007. The conference, which was attended by over 130 delegates from 24 countries, focused on nitrogen acquisition and assimilation in plants, although some talks on bacterial and fungal systems were also included. *Nitrogen2007* was generally acknowledged to have been a major success, with most of the key players in plant nitrogen research attending and a very high standard of oral and poster presentations throughout. The programme and abstracts of all the presentations are still available on the conference web site ([http://biol.lancs.ac.uk/nit2007/](http://biol.lancs.ac.uk/nit2007/)). As can be seen from the photographs that also can be easily viewed on the web site, the delegates certainly enjoyed themselves. The evening meals with copious wine were definitely the high spot, where everybody was able to get together and discuss the exciting new data that they had heard about that day. A special issue of the *Journal of Experimental Botany*
(vol 58, no. 9), containing nine up-to-date review articles by some of the invited speakers, was made available at the conference and can now be seen on-line:-
http://jxb.oxfordjournals.org/content/vol58/issue9/index.dtl

Nitrogen2007 was held under the joint auspices of the European Nitrate and Ammonium Assimilation Group (ENAAG) and the Nitrate Assimilation: Molecular and Genetic Aspects Group (NAMGA). Although these groups have both been organising regular conferences over the past 20 or more years, this was the first time they had come together for a joint meeting. The success of Nitrogen2007 was such that it was decided during the meeting to have only joint conferences in the future. With this objective in mind, ENAAG and NAMGA were dissolved and a new grouping called the International Plant Nitrogen Group (IPNG) was formed. The first IPNG meeting will be held in Japan in July 2010 and will be organised by Prof. Tomoyuki Yamaya (Tohoku University) and Prof. Tatsuo Omata (Nagoya University) at Inuyama-City http://www.city.inuyama.aichi.jp/english/index.html

For more information about IPNG and to join the nitrogen nutrition email discussion group, contact Brian Forde (b.g.forde@lancaster.ac.uk).

Brian G. Forde
Peter J. Lea
Hanma Zhang

Organising Committee
Nitrogen2007

2nd ISSS Workshop on Molecular Aspects of Dormancy and Germination, Salamanca, Spain

The ISSS meeting, organized by Drs. Dolores Rodriguez and Oscar Lorenzo was held in Salamanca, Spain from July 1st-4th, with over 100 registered attendees. The program was intensive and educational, intermixed with enjoyable social events. It was notable how far the field of research has progressed since the first workshop on this topic three years ago, in particular at the genome level, with the identification of
specific genes or gene sets that are related to seed dormancy and germination and the influx of new researchers into these topics, a rich source of new ideas, technologies and approaches.


NEWS
Dr. Oscar Lorenzo, from the University of Salamanca, Spain, has received the 2007 Award of the Spanish Society of Plant Physiology and will be the Spanish candidate for the Federation of European Societies of Plant Biology 2008 Award.

14th International Congress on Photosynthesis (PS07) Glasgow, UK

Over 800 participants congregated at the Scottish Exhibition and Conference Centre (SECC) in Glasgow for the 14th International Congress on Photosynthesis (PS07) from 22nd-27th July, 2007. This congenial gathering of international leaders, researchers and students came together to discuss recent developments within the domain of photosynthesis. The vibrant city of Glasgow provided an excellent backdrop for the exceptional scientific and education programme, with
sessions covering topics that ranged from molecular structures and artificial photosynthesis to improving stress tolerance and applications in food and bio-energy crop production. PS07 addressed recent developments in the basic science and methods as well as the new challenges and discoveries that underpin emerging concepts, providing a dynamic forum for exchange of information and research from all areas. The conference had a large number of student delegates, for many of whom this was the first experience of an International forum of scientific exchange. The abstracts for all the oral and poster presentations are published in Photosynthesis Research, volume 91. The Congress Proceedings Volume received 350 submissions and there are a number of Journal Special Issues arising from the meeting including one in the Journal of Experimental Botany.

A dramatic demonstration of energy at the public session on “Light and Life”

Making knowledge and information accessible to the public was an integral aspect of PS07. Thus, in order to promote a broader understanding of the importance of photosynthesis to the public, an accompanying event called “Light and Life” was held over two days in conjunction with the main Photosynthesis Congress sessions in the Clyde Suite at the nearby Glasgow Science Centre (GSC). This venue provided scientists with a unique opportunity for informal interactions with the public to explain their work using simple but effective interactive displays, shows and tools. We recorded 850 members of the general public visiting in the “Light and Life” event, a number that represented about 80% of those entering the GSC.
PS07 was supported by a large number of organisations including the BBSRC (UK). In addition, to providing financial support for the Bio-Energy session, BBSRC organised a public meeting on the second day of the Conference that was chaired by Quentin Cooper. The public meeting which gave a broad view of the emerging technologies, as well as economic, and social issues was well attended by local residents and enabled members of the general public to engage in a discussion on “Photosynthesis and Bio-energy”.

The organisation of PS07 also marked the first collaborative venture between the International Society for Photosynthesis Research (ISPR) and the Society of Experimental Biology (SEB). Moreover, the event greatly benefited from the participation of other organisations such as The American Society of Plant Biologists (ASPB) in the “Light and Life”, exhibition.

The Scottish Exhibition and Conference Centre, Glasgow

With its perfect combination of advanced technical facilities and professional service experience across a broad spectrum of events, the SECC lived up to expectations as one of the World's finest conference venues, with a very good range of lecture halls and ample space for informal discussions, posters and stands for exhibitors. In addition to the excellent science, PS07 was an occasion for meeting old friends and making new ones. Overall, the 14th International Congress on Photosynthesis proved to be a happy and successful occasion for the participants, who generally commented that it was a great meeting.

Prof Christine H. Foyer
University of Newcastle upon Tyne, UK
Email: christine.foyer@newcastle.ac.uk

**PS07 National Organising Committee and Chairs**: John Allen (Queen Mary College, London, UK), Neil Baker (University of Essex, UK), James Barber (Imperial College London, UK), Sarah Blackford (SEB), Ann Borland (University of Newcastle, UK), Christine H. Foyer (Chair, Rothamsted Research, UK), Howard Griffiths (University of Cambridge, UK), Jeremy Harbinson (University of Wageningen, The Netherlands), Julian Hibberd (University of Cambridge, UK), Peter Heathcote (Queen Mary College, London, UK), Neil Hunter (University of Sheffield, UK), Giles Johnson (University of Manchester, UK), Michael Jones (University of Bristol, UK), David Lawlor (Rothamsted Research), Richard Leegood (University of Sheffield, UK), Steven Long (University of Illinois, Urbana-Champaign, USA), Conrad Mullineaux (Queen Mary College, London, UK), Erik Murchie (University of Nottingham UK), Peter Nixon (Imperial College London, UK), Graham Noctor (Université Paris XI, France) Martin Parry (Rothamsted Research), Paul Quick (University of Sheffield, UK), Christine Raines (University of Essex, UK) John Raven (University of Dundee, UK) and William Rutherford (CEA, France).

**ISPR International Meetings Program Committee**: Christine Foyer (Chair; Rothamsted Research), Robert Blankenship (Co-chair Arizona State University, USA), Arthur Grossman (Carnegie Institution, USA), Gerald Edwards (Washington State University, USA), Susanne von Caemmerer (Australian National University, Canberra), Masahiko Ikeuchi (University of Tokyo, Japan), Jean-David Rochaix (Université de Genève, Switzerland) and John-Louis Prioul (Université Paris XI, France)

**Spotlight on Recent Publications**

Two Spanish groups from the CNB and CSIC, Madrid, have published in Nature during August. The group led by Dr Roberto Solano has identified a family of repressor proteins involved in jasmonate signalling in the defence response:

The JAZ family of repressors is the missing link in jasmonate signaling. *Nature* **448**, 666-671 (9 August 2007)

A. Chini1,4, S. Fonseca1,4, G. Fernández1,4, B. Adie1, J. M. Chico1, O. Lorenzo1,5, G. García-Casado2, I. López-Vidriero2, F. M. Lozano3, M. R. Ponce3, J. L. Micol13 & R. Solano1,2

1 Departamento de Genética Molecular de Plantas and,
2 Unidad de Genómica, Centro Nacional de Biotecnología-CSIC, Campus Universidad Autónoma, 28049 Madrid, Spain
3 División de Genética and Instituto de Bioingeniería, Universidad Miguel Hernández, Campus de Elche, 03202 Elche, Spain
These authors contributed equally to this work.

Present address: Dpto. de Fisiología Vegetal. Centro Hispano-Luso de Investigaciones Agrarias (CIALLE), Facultad de Biología, Universidad de Salamanca, Plaza de los Doctores de la Reina s/n, 37007 Salamanca, Spain.

Target mimicry provides a new mechanism for regulation of microRNA activity *Nature Genetics* 39, 1033 - 1037 (2007)

José Manuel Franco-Zorrilla1, Adrián Valli1, Marco Todesco2, Isabel Mateos1, María Isabel Puga1, Ignacio Rubio-Somoza2, Antonio Leyva1, Detlef Weigel2, Juan Antonio García1 & Javier Paz-Ares1

1 Department of Plant Molecular Genetics, Centro Nacional de Biotecnología, Consejo Superior de Investigaciones Científicas (CSIC), Campus de Cantoblanco, 28049 Madrid, Spain.
2 Department of Molecular Biology, Max Planck Institute for Developmental Biology, 72076 Tübingen, Germany.

Correspondence to: Javier Paz-Ares1 e-mail: jpazares@cnb.uam.es

**Forthcoming Meetings**

**Plant Genomics European Meeting Tenerife, Canary Islands, Spain October 3rd to 6th 2007**

Plant GEM is an international annual meeting on the subject of genomics in all its assets, designed to be the platform for researchers from Europe and all over the world to discuss latest developments and to exchange new ideas for future projects and to improve cooperation.

Opening Session. Highlights in Genomics/ Opening Keynote Lectures

Session 1. Emerging Plant Genomic Tools and Platforms

Session 2. Genomes of Model Plants and Crops

Session 3. Genomics in Evolution (Genome Structure and Comparative Genomics Approaches)

Session 4. Natural Variation & Ecosystem genomics

Session 5. Plant Systems Oriented Biology

Session 6. Bioinformatics & Process Oriented Approaches

Session 7. Phenotypic Plasticity on Biotic & Abiotic Stresses

Session 8. Genomics for Agriculture Sustainability and Food Security

Session 9. Epigenetics, Small RNAs and Chromatin Structure

Session 10. Nutrition and Health Related Plant Genomics

Session 11. Industries in Plant Genomics

For more information visit [http://www.plant-gems.org/](http://www.plant-gems.org/)
International Conference on “Molecular Mapping and Marker Assisted Selection in Plants” in Vienna, Austria, February 3rd to 6th 2008

Molecular Mapping & Marker Assisted Selection in Plants will cover the following topics: a) Plant Genome Organisation; b) Plant Genome Analysis and Mapping; c) Molecular Markers for Genetic Mapping of Plant Genome; d) Marker-assisted Selection; e) Mapping of Quantitative Trait Loci (QTL); f) Map-based Cloning & Chromosome Mapping.

Amongst the invited speakers are internationally known names such as M. Freeling, J. Bennetzen, S. Briggs, D. Zamir, J. Snape, P. Langridge, W. Powell, G. Copenhaver, R. Dirks, and others. The program combines plenary lectures, poster sessions, and sightseeing tours of the beautiful city of Vienna.

Approximately 300 participants are expected including almost 40 speakers and many presentations selected from abstracts, which can be submitted to the organisers until November 12th, 2007.

Conference webpage (http://www.univie.ac.at/molmapping/)

Alisher Touraev, Chair of the organizing committee

For any questions please contact conference organisers:

molmapping.pflanzenmolbio@univie.ac.at


An evening event organised by the London Technology Network, evaluating the latest innovations in diet, micronutrients and gut stability. "This event will provide a unique forum in which to access the region's academic brilliance and gain detailed knowledge of the cutting edge research and developments in the field of Nutrition and Health".

Venue: The Royal Society of Medicine, London

27 September 2007 - 1st Norwich Flow Day
Event organised for everyone, from beginners to seasoned users to learn from experts in the field of flow cytometry, to share experiences with and to meet other users. Further information at: http://www.ifr.ac.uk/flowcytometry/default.html

Venue: Institute of Food Research, Norwich UK at 09:25

9 October 2007 - Norwich Centre for Preventive Medicine Inaugural Symposium

Venue: Institute of Food Research, Norwich UK at 14:00

Positions Available

Humboldt Foundation Sofia Kovalevskaja Awards

Seeking outstanding research talents

Sofja Kovalevskaja Award – Cutting-edge research award for the best junior researchers from abroad

The Alexander von Humboldt Foundation is now inviting applications for the Sofja Kovalevskaja Award 2008, one of the most valuable academic awards in Germany. Award money of up to 1.65 million euros allows excellent researchers to carry out academic work under unique conditions: For a period of five years, they are able to work – independently and virtually unaffected by administrative constraints – on their own research projects at an institute of their own choice in Germany and set up their own working groups. Scientists and scholars from all disciplines from abroad who have completed their doctorates within the last six years are eligible to apply. The award targets outstanding talent and a creative approach to research. The closing date for applications is 4 January 2008.
Herausragende Forschertalente gesucht

Sofja Kovalevskaja-Preis – Spitzenforschungspreis für die besten Nachwuchswissenschaftlerinnen und -wissenschaftler aus dem Ausland


Für weitere Informationen besuchen Sie unsere Website: www.humboldt-foundation.de/kovalevskaja

Items for the next newsletter:

Please submit items for the next newsletter to your representative on the publications committee, or directly to:
Dr Alyson Tobin, Chair of Publications Committee and FESPB Newsletter Editor University of St Andrews, Scotland.

We are still looking for national members of this new committee- please send nominations to your national representative on FESPB executive committee- contact details on the FESPB website- or directly to Alyson Tobin.
National members of the FESPB Publications committee:

Albania

Dr Arjola Bacu
Institute of Biological Research
Academy of Sciences of Albania
Email a_bacu@yahoo.com

Belarus

Dr Halina Alekseichuk
Senior research scientist
Institute of Experimental Botany,
National Academy of Sciences of Belarus,
Academicheskaja str,27,
Minsk, Belarus
fax:+375-17-284-18-53
Email alekseichuk@biobel.bas-net.by

Bulgaria

Dr. Kalina Ananieva
Institute of Plant Physiology, Bulgarian Academy of Sciences
Acad. G. Bonchev Str., Bld. 21
1113 Sofia, Bulgaria
Email kalivanova@yahoo.com

Croatia

Suncica Bosak
Faculty of Science
Rooseveltov trg 6
10000 Zagreb
tel: +385(0)1 48 77 745ax: +385(0)1 48 26 260
e-mail: sbosak@biol.pmf.hr
France

Dr Martine Miquel  
Institute Jean-Pierre Bourgin  
Seed Biology Laboratory  
INRA Versailles - Grignon  
RD 10 - Route de St Cyr  
F - 78260 VERSAILLES CEDEX  
Tel. +33 1 3083 3320  
Fax +33 1 3083 3111  
Email Martine.Miquel@versailles.inra.fr  
French Society of Plant Biology website:  
http://sfbv.snv.jussieu.fr/

Slovenia

Dr Ales Kladnik  
University of Ljubljana, Biotechnical Faculty, Department of Biology  
Vecna pot 111, SI-1000 Ljubljana, Slovenia  
tel: +386 1 4233388, fax: +386 1 2573390  
url: http://botanika.biologija.org/  
skype: fridjo, msn: aleskladnik@hotmail.com  
Email ales.kladnik@bf.uni-lj.si

Spain

Dra. Dolores Rodríguez  
Dpto. Fisiología Vegetal. Facultad de Biología  
Plaza Dres. de la Reina s/n  
Universidad de Salamanca  
37007- Salamanca. Spain  
Tel. 34 923 294471.  FAX. 34 923 294682  
Email: mdr@usal.es