



FEDERATION OF EUROPEAN SOCIETIES OF PLANT BIOLOGY

FESPB Newsletter

No. 1 (3) October 2007

In this issue:

- Plant science news
- FESPB Awards
- FESPB Travel Fellowships
- Forthcoming meetings

Plant Science in the News

Amazon rainforests and the 2005 drought- consequences for climate change

Many large-scale climate change models predict that drought will lead to the loss of Amazonian rain forests through conversion to savanna. However, one of the central components of these predictive models has now been challenged in a recent paper in *Science*. That is, that drought causes a decrease in forest canopy transpiration, which leads to a decrease in atmospheric humidity that further exacerbates climate change. In the paper by **Saleska et al (*Science* (2007) 318: 612** and supporting material on-line) it is reported that canopy photosynthesis actually increased during a period of drought in a large region of the Amazonian rainforest. These results run counter to the predictions of drought-induced stomatal closure causing decreased transpiration, and they indicate that the Amazon forest might be more resilient to drought, at least in the short-term. Hence, climate models may need to be revisited in the light of this study.

Another step closer to the elusive blue rose?

A true blue rose (*Rosa multiflora*) has been the target for plant breeders since 1840, when the horticultural societies of Britain and Belgium offered a prize of 500,000 Francs to the first person to produce one. It is, in fact, impossible to produce one through conventional breeding. This is because the rose species lacks the gene for flavonoid 3',5'-hydroxylase (F3'5'H) the enzyme that produces dihydromyricetin. Because of this, roses cannot produce the delphinidin anthocyanins needed to produce a true blue flower. In a recent paper Katsumoto et al report significant progress towards this aim, by producing rose flowers with a distinct 'blue hue' (Katsumoto et al (2007) Engineering of the Rose Flavonoid Biosynthetic Pathway Successfully Generated Blue-Hued Flowers Accumulating Delphinidin Plant Cell Physiol. 48(11): 1589–1600 . The paper is a free-online article at <http://pcp.oxfordjournals.org/>

The group, led by Prof Y Tanaka, introduced the *F3'5'H* gene from *Viola* into a selection of rose cultivars. Some of the resulting transgenic lines produced 95% delphinidin (as a % of total anthocyanidins). To further improve the consistency of blue colouration across the different cultivars, the endogenous dihydroflavonol 4-reductase (*DFR*) gene was down-regulated and replaced with the *DFR* gene from the blue-flowered *Iris x hollandica*. The resulting transgenic lines were highly stable and the blue colouration was inherited in subsequent generations.

However, in order to produce a true blue flower several further obstacles have to be overcome. Stable flower colour is the result of not only the type of pigments present, but is also modified by the presence of co-pigments and metal ions as well as the pH of the vacuole. Nevertheless, this work provides a major milestone along the path towards the production of the elusive blue rose.

FESPB AWARDS TO YOUNG SCIENTISTS

The FESPB awards are presented at the bi-annual FESPB Congress to two young scientists under the age of 35, for excellence in their scientific achievements. They are the Federation's most prestigious awards.

Eligible for application are all young Plant Biologists from all European Countries under the age of 35 at the start of the FESPB2008 Congress. All applications from each country will be

evaluated by the respective constituent Society and the best candidate (one per country) will be sent to the Chairperson of Grants & Awards Committee, Prof. Christine Foyer. Thus, each National Representative from each Country is asked to propose one candidate for the 2008 Awards.

The FESPB Grants & Awards Committee will then evaluate all applications and will select the two FESPB Award winners, who must be under the age of 35, at the start of the Congress.

How to apply:

Nomination forms can be downloaded from the FESPB website at <http://www.fespb.org/GrantsandAwards/tabid/60/Default.aspx>

Nomination Forms, Recommendation Letter and *Curriculum Vitae* must be sent electronically, by regular mail or courier before 31 January 2008 to the following address:

Professor CHRISTINE FOYER

**School of Agriculture, Food and Rural Development Agriculture
Building,**

University of Newcastle upon Tyne, Newcastle upon Tyne,
NE1 7RU, England.

Tel: +44 (0) 191 2226932

Fax: +44 (0) 191 2227811

E-mail: christine.foyer@newcastle.ac.uk

Further information is available on the FESPB website under the 'Grants and Awards' section.

FESPB CONGRESS 2008

Travel Grants for Students from Central and Eastern Europe

The Federation of European Societies of Plant Biology will support post-graduate students from member countries in Central and Eastern Europe to attend the 2008 FESPB Congress in Tampere, Finland. Thirty grants will be available on a competitive basis. Each award will provide up to EURO 600 towards 6 nights basic hotel accommodation and standard class travel costs by bus/train/air between Tampere, Finland and their town of residence. In

addition, registration costs will be paid by FESPB directly to the Organizing Committee. The travel costs will be reclaimable at the Congress from the Treasurer of FESPB, Professor Heinz Rennenberg or from the Organizing Committee of the Congress on presentation of receipts and tickets.

Applicants should be registered at a European University as graduate students (masters or doctorate) in Plant Biology. They should also be residents in one of the following countries: Albania, Belarus, Bulgaria, Croatia, Estonia, Hungary, Latvia, Moldavia, Poland, Romania, Russia, Slovakia, Slovenia, Turkey, Ukraine, Serbia/Montenegro.

Successful applicants will be expected to arrange their own travel using a local travel agent. They will also be responsible for booking their own accommodation either through their local travel agent or through the Accommodation Booking Form to be found on the website of the Congress. Successful applicants will also be expected to present poster papers.

Applicants should send:

- (i) Completed Application Form, (can be downloaded from the FESPB website:
<http://www.fespb.org/GrantsandAwards/tabid/60/Default.aspx#Travel>
- (ii) Curriculum vitae
- (iii) Signed letter of recommendation from supervisor or other senior academic and
- (iv) Proposed poster Abstract

before 15 February 2008 by airmail post to:

Prof. ANNA RYCHTER

Institute of Experimental Plant Biology

Warsaw University, ul. Miecznikowa 1

02-096 Warszawa, Poland

Tel.:+ 48 22 55 43 005, 55 43 008; Fax:+ 48 22 55 42 022

E-mail: anna@rychter.com

Forthcoming Meetings

Bioinformatics Resource Days.

European and Spanish Bioinformatics Institute Roadshow. Barcelona, Spain, 26-28 November 2007.

More information at <http://www.irbbarcelona.com/index.php/en/news-events/barcelona-biworkshop/bioinformatics-resource-days>

Critical Assessment of Microarray Data Analysis (CAMDA 2007)

Centro de Investigacion Principe Felipe. Valencia. Spain 13-14 December 2007

More information at <http://camda.bioinfo.cipf.es/>

Society for Experimental Biology Meeting, Marseille, France 2008

The SEB Annual Main Meeting 2008 will be held at Parc Chanot in the cosmopolitan port city of Marseille. We would like to invite the submission of offered papers and posters for SEBatMarseille2008. Offered papers will form an important part of the meeting and will be included in the Abstract and Programme Book, published by Elsevier. Once again, all submissions for both oral and poster communications must be made online. Submission is NOW OPEN, to find out how to submit an abstract, and for more information on SEBatMarseille2008 please see the Marseille pages of the SEB website <http://www.sebiology.org/meetings/Marseille/Marseille.html>

Please note that the deadline for abstract submission is **31st March 2008**.

Molecular Bioenergetics of Cyanobacteria: Towards Systems Biology Level of Understanding

The European Science Foundation (ESF), in partnership with the European Molecular Biology Organization (EMBO), is organising this conference.

Venue: Hotel Eden Roc, Sant Feliu de Guixols, Spain
Time: 29 March - 3 April 2008

Chaired by: Eva Mari Aro, University of Turku, Finland

This conference is part of the 2008 ESF Research Conferences Scheme and is accessible on-line from www.esf.org/conferences/08253

Talks and meetings at the John Innes Centre, Norwich UK

The John Innes Centre has a very active programme of seminars and lectures, including a series of Named Lectures, given by external, invited speakers, which is managed by the site seminar committee. These are open to the scientific community.

Further information available at:
<http://www.jic.ac.uk/corporate/search/lectures.asp>

Annual Lecture - Science for 21st Century agriculture - how to farm for food, fuel and the environment - Peter Kendall, President, National Farmers' Union.

Venue: John Innes Conference Centre, Norwich Research Park, Norwich
Time: Tuesday 4th December from 18:30
To book places please contact: Dawn Barrett on 01603 255 328 or dawn.barrett@bbsrc.ac.uk
Further information at:
<http://www.jic.ac.uk/corporate/friends/events.htm>

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
fax: +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 Rodriguez
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
