

13th CONGRESS
OF THE FEDERATION
OF EUROPEAN SOCIETIES
OF PLANT PHYSIOLOGY

PROGRAMME



Hersonissos, Crete, GREECE
2-6 September 2002

CONGRESS PLAN

	Sunday Sept. 1	Monday Sept. 2	Tuesday Sept. 3	Wednesday Sept. 4	Thursday Sept. 5	Friday Sept. 6
08.30	<i>REGISTRATION</i>					
	<i>PLENARY LECTURES</i>					
09.00- 09.45	Opening ceremony	Genomics in Plant Biology: Construction of the plant ORFEOME	Transporters of mineral nutrients: the <i>Arabidopsis</i> NR2 family	Metabolic Engineering	Natural variation to study the genetic & molecular basis of plant adaptation	
09.45- 10.30	Plants in Ancient Greece	The (nuclear) ins and outs of phytochrome signal transduction	Programmed cell death & associated signal networks in response to biotic stress	Herbivore resistance through engineered cyanogenic glycoside synthesis	Plant ecophysiological studies in the frame of global changes: upscaling from molecule to the environment	
10.30- 11.00	<i>COFFEE BREAK</i>					
11.00- 11.45	Plant Biology today	Cross talk in plant hormone signaling: What mutational analysis is telling us	<i>GLK</i> genes function in diverse species to regulate cellular differentiation in the leaf	Molecular genetics of nitrogen assimilation applied to crop improvement	Functional genomics by overexpression of gene libraries in yeast: the case of halotolerance genes from yeast and plants	
11.45- 12.30	The control of flowering in response to daylength in <i>Arabidopsis</i>	The plant hormone auxin regulates SCF ^{TIR1} -dependent degradation of the Aux/IAA proteins	Assimilate & water transport	General Assembly of FESPP	FESPP Award Lectures	
12.30- 14.00	<i>LUNCH BREAK</i>					

14.00-16.00	<i>Registration</i>	<ul style="list-style-type: none"> •Poster viewing •FESPP Journal Editors' Meeting 	<ul style="list-style-type: none"> •Poster viewing •<i>Physcomitrella</i> Session •Meeting of National Representatives (Meeting room) 	<i>Excursion</i>	Poster viewing	Poster viewing
16.00-18.00		<i>SYMPOsia</i> (3 PARALLEL SESSIONS)			<i>SYMPOsia</i> (3 PARALLEL SESSIONS)	
		Cell Biology	Anthogenesis & Flowering		Hormones (metabolism)	Biotechnological Applications-Bioethics
		Bioinformatics	Abiotic Stress-Ecophysiology		Leaf & Root Development	Cell Signaling
18.00-18.30		Photosynthesis	Seed Maturation: Dormancy vs Germination		Biotic stress	Abiotic Stress: Resistance & Adaptation
		<i>COFFEE BREAK</i>			<i>COFFEE BREAK</i>	
18.30-20.00		<i>ORAL SESSIONS</i>			<i>ORAL SESSIONS</i>	Best Student Poster Minilectures Closing the Congress <i>(Hall Zeus)</i>
		Cell Biology	Secondary Metabolism		Abiotic Stress	
		Biosynthesis of Plant Constituents	Oxidative Stress, Senescence & PCD		Photosynthesis	
		Plant Biotechnology	Uptake & Transport Mechanisms		Cell Signalling	

SUNDAY, 1 SEPTEMBER 2002

14.00-20.00 Registration

Poster mounting

MONDAY, 2 SEPTEMBER 2002

08.30 Registration

***Session 1
Opening session
Hall Zeus***

09.00-09.45 Opening Ceremony

09.45-10.30 Plants in Ancient Greece

Stella Kokkini
GREECE

10.30-11.00 Coffee break

***Session 2
Hall Zeus******Chairperson: Franciszek Dubert, Poland &
Richard Napier, U.K.***

11.00-12.00 Plant Biology today: Positioning for our future

Daniel Cosgrove
U.S.A.

An Overview of Plant Biology Research in Canada

Norman Huner
President of the Canadian Society of Plant Physiologists
CANADA

Plant Biology today from the perspective of an ecophysiologicalist

Hans Lambers

President of the Australian Society of Plant Biologists

AUSTRALIA

Plant Physiology in Japan

Kimiyuki Satoh

President of the Japanese Society of Plant Physiologists

JAPAN

12.00-12.45 The control of flowering in response to daylength in *Arabidopsis*

George Coupland, P. Suarez-Lopez, T. Mizoguchi, A. Mouradov,

F. Valverde, P. Reeves, S. Hepworth, J. Gentilhomme &

D. Ravenscroft

GERMANY

12.45-14.00 Lunch break

14.00-16.00 Poster Viewing

14.00-16.00 FESPP Journal Editors' Meeting (Meeting Room)

Sessions 3-5

Symposia (3 parallel sessions)

Session 3

Cell Biology

Hall Leda

Chairpersons: Andreas Sievers, Germany &

Gunnar Öquist, Sweden

1600-1625 Cell cycle regulation in plants: growth and developmental changes
resulting from transformation of tobacco with fission yeast *cdc25* gene

P. Suchomelova, **Helena Lipavska**, D. Velgova & M. Smolonova

CZECH REPUBLIC



16.25-16.50 Ascorbate and glutathione influence the cell cycle through distinct mechanisms

Geert Potters, N. Horemans, S. Bellone, R. Caubergs, P. Trost & H. Asard
BELGIUM, ITALY & U.S.A.

16.50-17.15 Actin and actin-binding proteins regulate tip growth and gravitropic sensing

Markus Braun & A. Sievers
GERMANY

17.15-17.40 Impact of DNA methylation on the differentiation of four sugarbeet cell lines *in vitro*

Stephane Maury, A. Causevic, A. Delauney, G. Keravis, D. Vinterhalter & D. Hagere
FRANCE & BOSNIA-HERZEGOVINA

17.40-18.00 Discussion

***Session 4
Bioinformatics
Hall Hera***

***Chairpersons: Ulf-Ingo Flügge, Germany &
Michael Moustakas, Greece***

16.00-17.00 Bioinformatics: which craft is best?

Giles Velarde & T. Attwood, U.K.
Sponsored by The Plant Journal

17.00-17.20 A unified framework for visualizing metabolic pathways

Igor Rojdestvenski & M. Cottam
SWEDEN & CANADA

17.20-17.40 Discussion of a biocomputational approach to plant L-histidine decarboxylase characterization

A. Moya, J.L. Urdiales & **Francisco Sánchez-Jiménez**
SPAIN

17.40-18.00 Discussion



Session 5
Photosynthesis
Hall Aphrodite
Chairpersons: Giorgio Forti, Italy &
Joan Argyroudi-Akoyunoglou, Greece

- 16.00-16.25 A novel protein import site into chloroplasts
Steffen Reinbothe & C. Reinbothe
FRANCE & GERMANY
- 16.25-16.50 A transient replacement of the photosystem II reaction center protein D1:1 with D1:2 during low temperature stress of *Synechococcus sp.* PCC 7942 lowers the redox potential of QB
N. P. A. Huner, **Alexander G. Ivanov**, D. Sveshnikov, P.V. Sane & G. Öquist
CANADA, SWEDEN & INDIA
- 16.50-17.15 Involvement of state transitions in the switch between linear and cyclic electron flow in *Chlamydomonas reinhardtii*
Giovanni Finazzi, F. Rappaport, A. Furia, M. Fleischmann, J.-D. Rochaix, F. Zito & G. Forti
ITALY, FRANCE & SWITZERLAND
- 17.15-17.40 Photosynthetic hydrogen production
Anastasios Melis, Hsu-Ching Chen, L. Zhang & T. Happe
U.S.A.
- 17.40-18.00 Discussion
- 18.00-18.30 Coffee break



**Sessions 6-8
Oral Sessions
(3 Parallel sessions)**

**Session 6
Cell Biology
Hall Leda**

**Chairpersons: Jean-Louis Prioul, France &
Miroslav Strnad, Czech Republic**

- 18.30-18.45 Intermediate filaments in the cell cycle of algae *Chlamydomonas eugametos* and *Scenedesmus quadricauda*
Jana Hendrychová & V. Zachleder
CZECH REPUBLIC
- 18.45-19.00 A-Type cyclin dependent kinase is associated with microtubules and plays an important role in bipolar spindle organization in plants
Pavla Binarova, M. Wingartner, V. Cenklova, Z. Pochylova, H. Strnadova, V. Krystof & L. Bogre
CZECH REPUBLIC, AUSTRIA & U.K.
- 19.00-19.15 Regulation of plant cell division *in vitro* and *in vivo* by purine nucleotides and inhibitors of mitochondrial biogenesis
Spiridon Kintzios, O. Makri, E. Pistola, L. Tzortzakis, A. Tsipra & Th. Matakiaadis
GREECE
- 19.15-19.30 Changes in the plasma membrane fluidity during cell differentiation
Magdalena Szechyńska-Hebda, M. Filek & T. Hura
POLAND
- 19.30-19.45 Potassium channel activity-oxidative phosphorylation interrelationship in purified durum wheat mitochondria
Donato Pastore, D. Trono, M.N. Laus, N. Di Fonzo & S. Passarella
ITALY



- 19.45-20.00 The expression analysis of xyloglucan endotransglucosidase/hydrolase in the cambial region of hybrid aspen and mature hypocotyls of *Arabidopsis*
Nobuyuki Nishikubo, B. Sundberg & E. Mellerowicz
 SWEDEN

Session 7
Biosynthesis of Plant Constituents
Hall Hera
Chairpersons: Francisco M. Canovas, Spain & Panayotis Katinakis, Greece

- 18.30-18.45 Enzyme redundancy and 2-oxoglutarate in plant ammonium assimilation
 T. Lemaitre, M. Lancien, S. Gálvez, E. Bismuth, M. Hodges & **Pierre Gadal**
 FRANCE
- 18.45-19.00 Starch synthesis in potato tubers is regulated by a novel mechanism involving post-translational redox-modification of ADP-glucose pyrophosphorylase
 A. Tiessen, J.H.M. Hendriks, A. Branscheid, K. Prescha & **Peter Geigenberger**
 GERMANY
- 19.00-19.15 Diphosphonucleotide phosphatase/phosphodiesterase from yellow lupin (*Lupinus luteus* L.) belongs to a novel group of specific metallophosphatases
Mariusz Olczak, T. Olczak & W. Watorek
 POLAND
- 19.15-19.30 Chloroplastic and mitochondrial energy dissipation in *Arabidopsis thaliana*
Ola Nilsson & P. Gardeström
 SWEDEN



- 19.30-19.45 Malate valves to balance cell- and compartment-specific energy supply
M. Berkemeyer, S.M. Sauermann & **Renate Scheibe**
GERMANY
- 19.45-20.00 Regulation of *Nicotiana plumbaginifolia* NADH-Glutamate dehydrogenase by physiological and stress conditions: comparison of wild type to antisense suppressed transformants
E. Sforza, F. Saladino, V. Marinò, C. Agrimonti & **Francesco M. Restivo**
ITALY

Session 8
Biotechnological Applications
Hall Aphrodite
Chairpersons: Pierre Debergh, Belgium &
Barbara Vilhar, Slovenia

- 18.30-18.45 Increase of productivity in transgenic plants with introduced genes *ugt*, *acb*, and *acp*
R.K. Salyaev, N.I. Rekoslavskaya & **Sergio Mapelli**
RUSSIA & ITALY
- 18.45-19.00 Metabolic engineering of a zeaxanthin-rich potato by antisense inactivation and co-suppression of carotenoid epoxidation
S. Römer, J. Lübeck, C. Adomat & **Gerhard Sandmann**
GERMANY
- 19.00-19.15 Expression of heterologous *Vitreoscilla* hemoglobin in hybrid aspen
Hely Häggman, T. Aronen, A. D. Frey, L. Ryyänen,
R. Julkunen-Tiitto, H. Tiimonen, K. Pihakaski-Maunsbach &
P. T. Kallio
FINLAND, SWITZERLAND, & DENMARK



- 19.15-19.30 Metabolic profiling of potato tubers-Implications for their engineering
Alisdair R. Fernie & L. Willmitzer
GERMANY
- 19.30-19.45 Regeneration of pea (*Pisum sativum* L.) by a cyclic organogenic system and its use for genetic modification
Emmanouel N. Tzitzikas, J.-P. Vincken, K. Raemakers,
M. Bergervoet & R.G. F. Visser
THE NETHERLANDS
- 19.45-20.00 Characterization of eight varieties of pea (*Pisum Sativum*) by the jip-test
A. Gonzales, L. Ayerbe, J. Sanches, **Frédéric Reverchon**,
R. Maldonado-Rodriguez & R.J. Strasser
SWITZERLAND
- 21.00 Dinner in Creta Maris Hotel

TUESDAY, 3 SEPTEMBER 2002

Session 9

Plenary Lectures

Hall Zeus

**Chairpersons: Radmila Stikic, Yugoslavia &
Andrzej Tretyn, Poland**

- 09.00-09.45 Genomics in Plant Biology: construction of the plant ORFEOME
Athanasios Theologis
U.S.A
- 09.45-10.30 The (nuclear) ins and outs of phytochrome signal transduction
C. Bowler, **Giovanna Benvenuto**, G.R. Daviluri, F. Formiggini,
P. Laflamme & A. Van Tuinen
ITALY
- 10.30-11.00 Coffee break



Session 10
Plenary Lectures
Hall Zeus
Chairpersons: Thomas Moritz, Sweden &

11.00-11.45 Cross talk in plant hormone signalling: What mutational analysis is telling us
Peter McCourt
 CANADA
The Annals of Botany lecture

11.45-12.30 The plant hormone auxin regulates SCF^{TIR1}-dependent degradation of the Aux/IAA proteins
Mark Estelle
 U.S.A.

12.30-14.00 Lunch break

14.00-16.00 Poster viewing

Physcomitrella session

Meeting of National Representatives (Meeting room)

Session 11
Biology of Physcomitrella
Hall Leda
Chairpersons: Dietrich Ernst, Germany &
Ioannis Drosopoulos, Greece

14.00-14.30 *Physcomitrella* functional genomics
Ralf Reski
 GERMANY

14.30-15.00 Functional genomics by targeted transgenesis in the moss
Physcomitrella patens
 Didier Schaefer & **Jean-Pierre Zryd**
 SWITZERLAND



15.00-15.30 The morphogenetic gradient determining axis polarity in regenerating protoplasts of the moss *Ceratodon purpureus* involves phytochrome
David J. Cove, E. Hartmann, T. Lamparter & R.S. Quatrano
 U.K., GERMANY & USA

15.30-16.00 Isolation and knockout of *atcre* genes homologs in *Physcomitrella patens*
Florent Brun, F. Nogu , M. Laloue & M. Gonneau
 FRANCE

Sessions 12-14
Symposia (3 parallel sessions)

Session 12
Anthogenesis & Flowering
Hall Leda

Chairpersons: Ivana Machackova, Czech Republic & Sophia Rhizopoulou, Greece

16.00-16.25 Genetic control of pre-flowering phases in *Pisum sativum*
Jose A. Alcalde & M.F. Larrain
 CHILE

16.25-16.50 Biochemical evidences for a calcium-dependent protein kinase in *Pharbitis nil* and its involvement in flower induction
Krzysztof Jaworski, A. Szmids-Jaworska, A. Tretyn & J. Kopcewicz
 POLAND

16.50-17.15 Biological containment and flowering control in grasses
 C.S. Jensen, K. Petersen, Y. Levy, M. Strogaard, C.H. Andersen, I. Lenk, K.K. Nielsen & **Thomas Didion**
 DENMARK

17.15-17.40 The role of gibberellins, sugars and the autonomous pathway in the control of *Arabidopsis* flowering time under short day conditions
Sven Eriksson, T. Moritz & O. Nilsson
 SWEDEN

17.40-18.00 Discussion



Session 13
Abiotic Stress-Ecophysiology
Hall Hera
Chairpersons : Yannis Manetas, Greece &
Jorge Teixeira, Portugal
Dedicated to Gabor Horvath

- 16.00-16.25 Some current aspects about photosynthesis response to drought in C3 plants
Jaime Flexas & H. Medrano
 SPAIN
- 16.25-16.50 Do aquaporins affect both water and CO₂ tissue permeability? Evidences at cellular and whole plant level
Claudio Lovisolo, N. Uehlein, F. Siefritz, M. Eckert, B. Otto, A. Schubert & R. Kaldenhoff
 ITALY & GERMANY
- 16.50-17.15 Responses of two silver birch clones to increasing ozone and carbon dioxide during three years of exposure: photosynthesis and related biochemical properties
Johanna Riikonen, T. Holopainen, E. Oksanen & E. Vapaavuori
 FINLAND
- 17.15-17.40 Cluster roots: An adaptation to extremely phosphate impoverished soils
Hans Lambers & M.W. Shane
 AUSTRALIA
- 17.40-18.00 Discussion



Session 14
Seed Maturation: Dormancy vs Germination
Hall Aphrodite
Chairpersons: Paolo Costantino, Italy &
Ljudmila Kalitaho, Belarus

- 16.00-16.25 A genetics analysis of seed dormancy in *Arabidopsis*
Maarteen Koornneef
 THE NETHERLANDS
- 16.25-16.50 Understanding and controlling germination: from *Arabidopsis*
 to wheat
Mike Holdsworth
 U.K.
- 16.50-17.15 Mutations in the Dof zinc finger genes *dag2* and *dag1* influence
 with opposite effects germination of *Arabidopsis* seeds
Paola Vittorioso, M. Papi, G. Gualberti, J. Martone &
P. Costantino
 ITALY
- 17.15-17.40 Differential gene expression in germinating and thermoinhibited
Tagetes minuta L. achenes
P.N. Hills & Johannes van Staden
 SOUTH AFRICA
- 17.40-18.00 Discussion
- 18.00-18.30 Coffee break



Sessions 15-17
Oral Session
(3 Parallel sessions)

Session 15
Biosynthesis of Secondary Metabolites
Hall Leda

Chairpersons: Luigi Sanita di Toppi, Italy &
Carolina Ganis-Spyropoulos, Greece

- 18.30-18.45 Phosphoenolpyruvate levels in the plastid stroma influence the production of secondary metabolites and plant development
Lars Voll, R.E.Häusler, R. Hecker, S. Waffenschmidt, G. Weissenböck, G. Fiene & U.-I. Flügge
GERMANY
- 18.45-19.00 Glucosinolate biosynthesis and metabolic engineering in *Arabidopsis*
Michael D. Mikkelsen & B. A. Halkier
DENMARK
- 19.00-19.15 Coumarin secondary metabolites during stress in *Chamomilla*
Miroslav Repčák, A. Pastírová & M. Franeková
SLOVAK REPUBLIC
- 19.15-19.30 Secondary metabolites in leaves of *Tilia euchlora*, a herbivore-resistant tree
Liisa Kaarina Simola & R. Julkunen-Tiitto
FINLAND
- 19.30-19.45 Rosmarinic acid synthesis in transgenic callus of *Coleus blumei* Benth.
Nataša Bauer, D. Leljak-Levanić & S. Jelaska
CROATIA
- 19.45-20.00 Molecular cloning of genes involved in γ -tocopherol synthesis in plants
Gregorio Gálvez-Valdivieso, J. M. Vera¹, E. Fernández-Conde, M. Aguilar and M. Pineda
SPAIN



Session 16
Oxidative stress, Senescence & Programmed Cell Death
Hall Hera
Chairpersons: Klaus Humbeck, Germany &
Stanislav Prochazka, Czech Republic

- 18.30-18.45 Hormonal interactions in the regulation of reactive oxygen species-mediated cell death
 R. Ahlfors, M. Keinänen, S. Lång, K. Overmyer, P. Pulkkinen, H. Tuominen & **Jaakko Kangasjärvi**
 FINLAND
- 18.45-19.00 Analysis of differential gene expression during leaf senescence using *Arabidopsis* high density genome arrays
Ulrike Zentgraf & D. Kolb
 GERMANY
- 19.00-19.15 Apoptotic cell death of *Brassica napus* leaf protoplasts
Masami Watanabe, D. Setoguchi, K. Uehara, K. Yasuda, W. Ohtsuka & Y. Watanabe
 JAPAN
- 19.15-19.30 Functional characterization of a novel thioredoxin-dependent peroxidase sharing high sequence similarity with PHGPx
 H. S. Jeon, J. W. Yun, B. G. Jung, K. O. Lee, H. H. Jang, Y. H. Chi, C. O. Lim, M. JeCho & **Sang Yeol Lee**
 KOREA
- 19.30-19.45 EPR monitoring of oxidative stress tolerance in wild type and in transgenic maize and tobacco overexpressing SOD
Andree Dedonder, A. Maris & F. Callens
 BELGIUM
- 19.45-20.00 Hydrogen peroxide signalling-implications for corn stress tolerance
Leonid V. Savitch, L. Cass, S. Kelso, N. Tinker, L. Robert, J. Singh & J. Simmonds
 CANADA



Session 17
Uptake & Transport Mechanisms
Hall Aphrodite
Chairpersons: Ineke Stulen, The Netherlands &
Ulrich Wobus, Germany

- 18.30-18.45 Understanding the role of the plasma membrane H⁺-ATPase family in plant physiology
Frédéric Gévaudant, R. Zhao, S. Dambly, J. Kanczewska, M. Woloszynska & M. Boutry
 BELGIUM
- 18.45-19.00 Root-phloem specific expression of the plasma membrane amino acid transporter AtAAP3
Sakiko Okumoto, W. Koch, W.N. Fischer, M. Tegeder & W.B. Frommer
 GERMANY & U.S.A.
- 19.00-19.15 Directional long distance movement of phloem proteins
Koh Aoki, S. Fujimaki, T. Fujiwara, H. Hayashi, T. Yamaya & H. Sakakibara
 JAPAN
- 19.15-19.30 Transcript levels of ABC transporters after cadmium and xenobiotic treatments in *Arabidopsis thaliana*: a microarray approach
Lucien Bovet, U. Feller & E. Martinoia
 SWITZERLAND
- 19.30-19.45 Regulation of amino acid uptake by carbon and nitrogen
Jörgen Persson and T. Näsholm
 SWEDEN
- 19.45-20.00 Non-invasive investigation into plasmodesmal regulation using novel confocal laser scanning microscopic techniques and caged compounds
 H.J. Martens, M. Hansen, and **Alexander Schulz**
 DENMARK



WEDNESDAY, 4 SEPTEMBER 2002

Session 18

Plenary Lectures

Hall Zeus

**Chairpersons: Daniel Cosgrove, USA &
Demetrios Ghanotakis, Greece**

09.00-09.45 Transporters of mineral nutrients: the *Arabidopsis* NRT2 family
M. Orse, A. Krapp, S. Filleur, A. Gojon &
Françoise Daniel-Vedele
FRANCE

09.45-10.30 Signal networks in plant disease resistance
Chris Lamb
U.K.

10.30-11.00 Coffee break

Session 19

Hall Zeus

Plenary Lectures

**Chairpersons: Monica Iuoras, Romania &
Hitoshi Suzuki, Japan**

11.00-11.45 *GLK* genes function in diverse species to regulate cellular
differentiation in the leaf
Jane A. Langdale, M. Copley, D. Fitter, D. Martin, E. Moylan,
L. Rossini, R. Scotland & Y. Yasumura
U.K.

11.45-12.30 Recent aspects of assimilate and water transport in plants
Serge Delrot, R. Atanassova, B. Cakir, M. Leterrier, A. Agasse,
F. Dédaldéchamp & C. Gaillard
FRANCE

12.30-14.30 Lunch break

15.00-23.00 Excursion and dinner



THURSDAY, 5 SEPTEMBER 2002

Session 20

Hall Zeus

Plenary Lectures

**Chairpersons: Maria Maddalena Altamura, Italy &
Hermut Lichtenthaler, Germany**

09.00-09.45 Metabolic Engineering

Uwe Sonnewald & K. Herbers
GERMANY

09.45-10.30 Herbivore resistance through engineering cyanogenic glucoside synthesis

D.B. Tattersall, P.R. Jones, K.A. Nielsen, K. Jørgensen, S. Ebert, P.B. Høj, J.K. Nielsen, M.L. Hansen, C.E. Olsen, S. Bak, & **B. L. Møller**
DENMARK

The Physiologia Plantarum lecture

10.30-11.00 Coffee break

Session 21

Plenary Lecture

Hall Zeus

Chairpersons: David Cove, U.K. &

11.00-11.45 Molecular genetics of nitrogen assimilation applied to crop improvement

Bertrand Hirel, M.A Limami & A. Gallais
FRANCE

11.45-12.30 General Assembly of FESPP in Zeus Hall (all congress delegates are welcome)

12.30-14.30 Lunch break



Sessions 22-24
Symposia
(3 parallel sessions)

Session 22
Hormones (metabolism)
Hall Leda

Chairpersons: Emanuel Karanov, Bulgaria
& Barbara Tomaszewska, Poland

- 16.00-16.25 Auxin biosynthesis in *Arabidopsis* root apical tissue
Karin Ljung & G. Sandberg
 SWEDEN
- 16.25-16.50 Distinct responses to activation of a cytokinin biosynthesis gene, *ipt*, in tobacco and *Arabidopsis* seedlings development
 T. N. Genkov, J. Dubová, J. Guo, A. Reková, E. Nejedlá, M. Lexa, J. Nejedlík, J. Malbeck, M. Vágner, I. Moore & **Bretislav Brzobohatý**
 CZECH REPUBLIC & U.K.
- 16.50-17.15 Expression of arginine decarboxylase *adc2* gene is induced by wounding, jasmonates, and ABA in *Arabidopsis thaliana*
 M.A. Pérez-Amador, J. León, P.J. Green & **Juan Carbonell**
 SPAIN & U.S.A
- 17.15-17.40 The genome-wide transcriptional response of tobacco cells towards jasmonates: from bright yellow to bright pink
Alain Goossens, V. De Sutter, F. Lammertyn, S. Salonvaara, I. Laakso, K.M. Oksman-Caldentey & D. Inzé
 BELGIUM, & FINLAND
- 17.40-18.00 Discussion
- 18.00-18.30 Coffee break



Session 23
Leaf & Root Development
Hall Hera
Chairpersons: Alte M. Bonnes, Norway &
Polydefkis Hatzopoulos, Greece

16.00-16.25 Potential Roles of Expansins in Leaf and Root Development

Daniel Cosgrove
U.S.A.

16.25-16.50 The *Arabidopsis srhl* gene encodes a phosphatidyl-inositol transfer protein (PITP) essential for root hair tip growth

Fabien Nogué, P. Vincent, Y. Li, K. Marrocco, F. Charlot, M. Laloue
& V. Bankaitis
FRANCE & U.S.A.

16.50-17.15 Environmental signals change root epidermal cell fate in *Arabidopsis*

M. Müller & **Wolfgang Schmidt**
GERMANY

17.15-17.40 In *Arabidopsis* the rapid control of root elongation localizes to six nanoliters of CEZ, basal to DEZ

Jean-Pierre Verbelen, J. Le, S. Kerstens, T. De Cnodder &
K. Vissenberg
BELGIUM

17.40-18.00 Discussion

18.00-18.30 Coffee break



Session 24
Biotic Stress
Hall Aphrodite
Chairpersons: Zoltan Kiraly, Hungary &
Nickolas Panopoulos, Greece

- 16.00-16.25 Analysis of insect adaptation by DNA-microarrays
Kristina Gruden, M. Pompe-Novak, M. Ravnikar, B. Strukelj &
M. A. Jongsma
SLOVENIA & THE NETHERLANDS
- 16.25-16.50 SVISS - A Sattelite-Virus-Induced Silencing System for efficient gene
function discovery and validation in plants
V. Gosselé, I. Faché, M. Cornelissen, F. Meulewaeter &
Michael Metzlaff
BELGIUM
- 16.50-17.15 A novel nucleus targeted protein is expressed in barley leaves during
leaf senescence and pathogen infection
Karin Krupinska, K. Haussüehl, G. Leckband, H. Lörz,
C. Scharrenberg, A. Schäfer, T. van der Kooij & J. Falk
GERMANY
- 17.15-17.40 Essential oils in plant defense against epiphytic and phytopathogenic
bacteria
N. Trivara, **Katerina Karamanoli**, G. Diamantidis &
H.-I. A. Constantinidou
GREECE
- 17.40-18.00 Discussion
- 18.00-18.30 Coffee break



Sessions 25-27
Oral Session
(3 Parallel Sessions)

Session 25
Abiotic Stress
Hall Leda

**Chairpersons: Peter Böger, Germany &
Helen-Isis Constantinidou, Greece**

18.30-18.45 Biochemical, physiological, and water relation parameters in wheat species and cultivars under osmotic stress: searching for drought tolerance-related genes

Laszlo Erdei, L. Cseuz, J. Csiszár, Á. Gallé, F. Horváth,
J. Györgyei, A. Pécsváradi, M. Szabó, L. Szilák & I. Tari
HUNGARY

18.45-19.00 A novel root adaptation to water stress

Peter M. Neumann & Jorge H. Lemcoff
ISRAEL & ARGENTINA

19.00-19.15 Oxalic acid in leaves and roots of the resurrection *Ramonda serbica* Panc. during dehydration and rehydration

T. Zivkovic, M.F. Quartacci, C. Sgherri, B. Stevanovic &
Flavia Navari-Izzo
YUGOSLAVIA & ITALY

19.15-19.30 Cold tolerance in plants- Studies of the natively unfolded dehydrin proteins

Pia Harryson & P. Gustafsson
SWEDEN

19.30-19.45 Nitric oxide mediates iron-induced ferritin accumulation in *Arabidopsis*

I. Murgia, M. Delledonne & **Carlo Soave**
ITALY



- 19.45-20.00 Identification, characterization and regulation of new anoxic and hypoxic cDNAs expressed in *Citrus* flavedo cells using RT-PCR differential display
Angelos K. Kanellis, K. Pasentsis & D. Gerasopoulos
 GREECE

Session 26
Photosynthesis
Hall Hera

Chairpersons: Reto Strasser, Switzerland & Kyriakos Kotzabasis, Greece

- 18.30-18.45 Structure of intact photosynthetic membranes studied *in situ* by scanning force microscopy
David Kaftan, V. Brumfeld, R. Nevo, A. Scherz & Z. Reich
 ISRAEL & CZECH REPUBLIC
- 18.45-19.00 Light and plastid signalling co-ordinately regulate plastid development during de-etiolation in *Arabidopsis*
 A.C. McCormac & **Matthew J. Terry**
 U.K.
- 19.00-19.15 Unravelling the role of the lumenal carbonic anhydrase in photosynthesis. How to be in the right place at the right time
Arsenio Villarejo, T. Shutova, F. Martínez & G. Samuelsson
 SWEDEN & SPAIN
- 19.15-19.30 Regulation of photosynthetic and respiratory CO₂ fluxes in leaves with different rates of starch synthesis
Tiit Pärnik, H. Ivanova & O. Keerberg
 ESTONIA
- 19.30-19.45 The state of the art in single cell analysis to study photosynthesis and stress response
Christian Wilhelm, A. Becker & J. Toepel
 Germany



19.45-20.00 System-level approach to metabolic oscillations forced by harmonic irradiance of plants

Ladislav Nedbal & V. Březina
CZECH REPUBLIC

*Session 27
Cell Signalling
Hall Aphrodite*

*Chairpersons: Gederts Ievinsh, Latvia &
Frantisek Baluska, Germany*

18.30-18.45 Small Rab and Rho GTPases and their effectors in plant cell morphogenesis

Viktor Zarsky, F. Cvrckova, M. Hala, H. Soukupova,
B. Bavluka, M. Elias & D. Ziak
CZECH REPUBLIC

18.45-19.00 Phosphatidic acid is required for pollen tube growth and pollen germination in *Nicotiana tabacum*

Martin Potocký, M Eliáš, B Profotová, Z Novotná, O Valentová &
V Žárský
CZECH REPUBLIC

19.00-19.15 Multifaceted aspects of jasmonate signalling

Agnieszka Swiatek, A. Azmi & H. Van Onckelen
BELGIUM

19.15-19.30 Rapid induction of NO biosynthesis by cytokinin in cell cultures and in *Arabidopsis* in cytokinin signalling: NO as a potential second messenger

Ni Ni Tun, A. Holk & **Günther F.E. Scherer**
GERMANY

19.30-19.45 Signal transduction pathway for anaerobic GABA accumulation in rice roots

Remo Reggiani & P. Laoreti
ITALY



- 19.45-20.00 The role of root-to-shoot signalling in coordinating responses to nitrogen deficiency in tomato (*Lycopersicon esculentum* L.)
Shanta L. Aphale, C.R. Black, J.R. Roberts, I.B. Taylor & B.J. Mulholland, U.K.

FRIDAY, 6 SEPTEMBER 2002

Session 28

Plenary Lectures

Hall Zeus

Chairpersons: Jean-Claude Kader, France & Leonor Alegre, Spain

- 09.00-09.45 Natural variation to study the genetic and molecular basis of plant adaptation in *Arabidopsis*
Maarten Koornneef, C. Alonso-Blanco, L. Bentsink, S.E.-D. El-Assal, M.E. El-Lithy, A.J.M. Peeters, V. Raz & D. Vreugdenhil, THE NETHERLANDS
- 09.45-10.30 Functional genomics by overexpression of gene libraries in yeast: the case of halotolerance genes from yeast and plants
Ramón Serrano, R. Ros, O. Vicente, J. Forment, M. A. Naranjo, M. Roldán, R. Kanhonou, A. Rausell & G. Ríos, SPAIN
- 10.30-11.00 Coffee break

Session 29

Hall Zeus

Plenary Lectures

Chairpersons: Pierre Gadat, France & Mike Jackson, U.K.

- 11.00-11.45 Plant ecophysiological studies in the frame of global changes: upscaling from molecule to environment
Josep Peñuelas, SPAIN



FESPP AWARD LECTURES

11.45-12.15 The ins and outs of thylakoid membrane biogenesis

Alexandra Mant

DENMARK

*Sponsored by the Society of Experimental Botany and
The Journal of Experimental Botany*

12.15-13.00 A Genomic analysis of the shade avoidance response"

Paul Devlin, M. Yanovsky & S. Kay

U.K. & U.S.A

Sponsored by Jouan of France

13.00-14.00 Lunch break

14.00-16.00 Poster viewing

**Sessions 30-32
Symposia
(3 Parallel Sessions)**

**Session 30
Biotechnological Applications-Bioethics
Hall Leda
Chairpersons: Francois Larher, France &
Edna Ben-Izhak Monselise, Israel**

16.00-16.25 Novel anaerobic inducible potato genes for use in post-harvest production

Renate Lührs, M. Tschardtke & L. Bülow

GERMANY

16.25-16.50 PSII Biotechnology for biosensor purposes

Maria-Teresa T. Giardi, M. Iosa, D. Esposito, E. Pace &

M. Rizzuto

ITALY



16.50-17.15 Transgenic tobacco plants expressing human GAD are affected in plant growth and development
Laura Pistelli, L. Avesani, M. Pezzotti & A. Alpi
 ITALY

17.15-17.40 Issues of bioethics and biosafety related to transgenic plants
Ioannis Economidis
 BELGIUM

17.40-18.00 Discussion

Session 31
Cell Signalling
Hall Hera

Chairpersons: Laura De Gara, Italy & Mirko Spasenoski, Fyrom

16.00-16.25 *In vivo* and *in vitro* analysis of the GPA1 signalling pathway in *Arabidopsis*
Robert G. Dickinson, P. A. Millner, & S. Jackson
 U.K.

16.25-16.50 A novel plant signalling component containing a pH domain and a FYVE-like Zn²⁺-finger
Karin Zwerger, I. Meskiene & H. Hirt
 AUSTRIA

16.50-17.15 Phosphate starvation responses in *Arabidopsis*. Influence of cytokinins
 J.M. Franco, V. Rubio, A.C. Martin, R. Solano, E. Gonzalez, F. Scaglia, A. Leyva, & **Javier Paz-Ares**,
 SPAIN



- 17.15-17.40 Plasma membrane depolarization induced by ABA involves inhibition of H⁺ proton pump in addition to anion channel activation in *Arabidopsis thaliana* suspension cells: Ca²⁺ dependency
M. Brault, Z. Amiar, A.M. Pennarun, M. Monestiez, D. Cornel, F. Bouteau & **Jean-Pierre Rona**
FRANCE

Session 32
Abiotic Stress: Resistance and Adaptation
Hall Aphrodite
Chairpersons: Mike Jackson, U.K. & Per Gardeström, Sweden

- 16.00-16.25 The role of free radicals in plant ageing
Nada Wilhelmova
CZECH REPUBLIC
The Biologia Plantarum & Photosynthetica lecture
- 16.25-16.50 Thermoluminescence as a selective tool for monitoring plant stress: A method not only interesting for basic research but also for plant breeding institutions screening for new stress tolerant plant varieties
Matthias Gilbert, J. Skotnica, I. Weingart & C. Wilhelm
GERMANY
The Journal of Plant Physiology lecture
- 16.50-17.15 Heat stress and heat shock transcription factor dependent expression of galactinol synthase in *Arabidopsis thaliana*
Tressa Jacob, M. Wunderlich, H. Stransky & F. Schoeffl
GERMANY
- 17.15-17.40 Vitamin C contents modulate defence processes and plant development
Christine H. Foyer, G. Kiddle, G. M. Pastori, J. Antoniow, S. Bernard, S. Veljovic-Jovanovic, Paul J. Verrier & G. Noctor
U.K., YUGOSLAVIA & FRANCE
- 17.40-18.00 Discussion
- 18.00-18.30 Coffee break



Session 33
Best Student Poster Awards
Hall Zeus
Chairpersons: Laszlo Erdei, Hungary &
Kalliopi Roubelakis-Angelakis, Greece

18.30-20.00 Minilectures (5 min) by the students-authors of the best Posters

21.30 Gala Dinner in Creta Maris Hotel



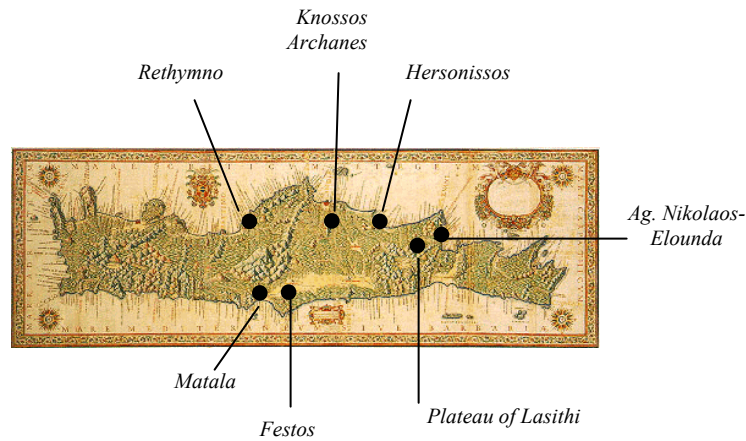
EXCURSION

On Wednesday, 4 September 2002 in the afternoon, all congress participants are invited to take part in an excursion to one of the following destinations:

- 1. Aghios Nikolaos-Elounda*
- 2. Knossos-Museum*
- 3. Rethymnon*
- 4. Phaestos-Matala*
- 5. Plateau of Lassithi-Cave*

DEPARTURE TIME

1500 FROM CRETA MARIS HOTEL



All participants are kindly requested to inform the registration desk as to the site of their preference by Tuesday noon.

Please note that the number of places available on each of these excursions is strictly limited.

Late in the evening, all participants will meet in the traditional village Arolithos for dinner.

Accompanying members, please consult the following page, too.

THOSE WISHING TO COME ONLY TO THE DINNER, SHOULD PLEASE TAKE A TAXI TO THE RESTAURANT "AROLITHOS" TO ARRIVE BY 2000



PROGRAMME FOR ACCOMPANYING PERSONS

The accompanying persons are invited to participate in the following activities:

Monday, 2 September 2002

1230-1400: Lunch with participants in Creta Maris Hotel.

2100: Dinner with participants in Creta Maris Hotel (folk dances).

Tuesday, 3 September 2002

Excursion:

0930. Departure from Creta Maris Hotel.

Visit to Knossos, Archaeological Museum of Heraklion and Archanes.

Lunch in local restaurant.

1600 Return to Creta Maris Hotel.

Wednesday, 4 September 2002

1230-1400: Lunch with participants in Creta Maris Hotel.

Excursion with the participants.

1500 Departure from Creta Maris Hotel.

Please follow the instructions on the previous page.

Dinner in traditional restaurant.

Thursday, 5 September 2002

Excursion:

0930. Departure from Creta Maris Hotel.

Visit to Aghios Nikolaos and Elounda.

Lunch in the town of Neapolis.

1600 Return to Creta Maris Hotel.

Friday, 6 September 2002

12.30-1400: Lunch with participants in Creta Maris Hotel.

2130: Gala dinner in Creta Maris Hotel.

**PLEASE ALWAYS HAVE WITH YOU YOUR BADGE AND
YOUR MEALS AND EXCURSIONS TICKETS**



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