



FINAL PROGRAM

Congress Fee: Payment upon registration requires cash!

Information for Poster Presenters: Posters (100 cm width, 130 cm height) should be mounted on Monday afternoon and will be on display throughout the conference. Presenters of posters with an even page no. in the abstract book should be available for discussion during poster session A, those with odd no. during poster session B. The three best posters will receive awards at the congress dinner Thursday evening.

The memory stick contains program, abstracts and information about Agrisera.

Monday, September 10

14:00 – 20:00 *Registration, Poster mounting*

16:30 *“Bummelzug” leaves from the Toscana parking lot to town hall square.*

16:45 – 17:45 *Guided tour through Gmunden*

17:50 *“Bummelzug” departs for the conference center*

• **Opening session (18:15 - 20:00) Chair: R. Oelmüller**

18:15 – 18:30 Opening Remarks

18:30 – 19:00 Andrew Roger (Halifax)

Problems in inferring the deep phylogeny of eukaryotes with multiple gene data

19:00 – 19:30 Steven Ball (Lille)

Probing evolution of the starch pathway reveals the metabolic symbiosis mechanism between the plastid and its host

19:30 – 20:00 John Gray (Cambridge) EMBO LECTURE

Retrograde signaling from plastids to the nucleus

20:00 – 22:00 Welcome Reception



Tuesday, September 11

• **Evolution of plastid and mitochondrial protein import apparatus**
(9:00 – 11:00) *Chair: W. Löffelhardt*

9:00 – 9:35 Walter Neupert (Munich)

Conserved and non-conserved pathways of protein import into mitochondria

9:35 – 10:00 Ute Vothknecht (Munich)

Calcium/Calmodulin regulation: An eukaryotic addition to chloroplast protein import

10:00 – 10:20 Enrico Schleiff (Munich)

Evolution of protein translocation systems

10:20 – 10:40 Jürgen Steiner (Vienna)

The protein import system of the living fossil *Cyanophora paradoxa*: same same, but different

10:40 – 11:00 Ralf-Bernd Klösgen (Halle)

Specificity and mechanism of protein transport in plant cells

11:00 – 11:30 Coffee Break

• **Phylogenomics, Endosymbiont Theory (11:30 – 12:30) Chair: W. Martin**

11:30 – 11:50 Arndt von Haeseler (Vienna)

Mapping human genetic ancestry

11:50 – 12:10 Rudolf Hagemann (Halle)

Early reception of the Schimper–Mereschkowsky Hypothesis on the endosymbiotic origin of plastids (1883-1960)

12:10 – 12:30 Günter Peschek (Vienna)

Genome Signature Comparison points to a Common Cyanobacterial Ancestry for Mitochondria and Chloroplasts



12:30 – 13:30 Lunch

• **Poster Session A (13.30 – 15:00)**

Armbruster (Munich), Hertel (Berlin), Mirus (Munich), Moszczynski (Wroclaw), Otters (Munich), Rauwolf (Munich), Schmitz-Esser (Vienna), Sixt (Vienna), Swiatecka-Hagenbruch (Berlin), Ueda (Tsukuba)

• **Mitochondria I (15:00 – 16:00) Chair: W. Neupert**

15:00 – 15:30 Johannes Hackstein (Nijmegen)

Mitochondria, hydrogenosomes, mitosomes, and that all...

15:30 – 16:00 Franz Lang (Montreal)

Surprises from mitochondrial proteomics

16:00 – 16.30 Coffee Break

• **Mitochondria II (16:30 – 18:00) Chair: F. Lang**

16:30 – 17:00 William Martin (Düsseldorf)

On the ancestral state of microbial physiology

17:00 – 17:20 Sabine Molik (Marburg)

Biogenesis of iron-sulfur proteins in *Microsporidia*

17:20 – 17:40 Bernd Schäfer (Aachen)

The evolution of the RNA degradosome in mitochondria

17:40 – 18:00 Karsten Liere (Berlin)

From seedling to mature plant: the ups and downs of organellar genomes

18:00 – 19:30 ISE Meeting

10th International Colloquium on Endocytobiology and Symbiosis



- **Coordinated regulation of plastid and nuclear gene expression I**
(19:30 – 20:50) *Chair: T. Börner*

19:30 – 19:50 Dario Leister (Munich)

Nuclear insertions of organellar DNA can create novel patches of functional exon sequences

19:50 – 20:10 Junichi Obokata (Nagoya)

Mitochondrial signal and chloroplast signal: their reciprocal roles in regulating chloroplast biogenesis

20:10 – 20:30 Thomas Pfannschmidt (Jena)

Eukaryotic transcription factors in plastids – bioinformatic assessment and implications for the evolution of gene expression machineries in plants

20:30 – 20:50 Masahiro Sugiura (Nagoya)

Mechanisms of protein synthesis in higher plant chloroplasts

Wednesday, September 12

- **Coordinated regulation of plastid and nuclear gene expression II**
(9:00 – 10:20) *Chair: M. Sugiura*

9:00 – 9:20 Thomas Börner (Berlin)

The transcriptional machineries in mitochondria and plastids of *Arabidopsis*

9:20 – 9:40 Kirsten Krause (Tromsø)

Eukaryotic transcription factors with dual localisation in the nucleus and in plastids or mitochondria – an important link in nuclear/organelle crosstalk?

9:40 – 10:00 Silva Lerbs-Mache (Grenoble)

Role of sigma factors in plastid gene transcription

10:00 – 10:20 Christian Schmitz-Linneweber (Berlin)

Chloroplast Subtranscriptomes Defined by Nuclear Encoded RNA Binding Proteins

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10.20 – 11:00 *Coffee Break*

• Plant/Fungal Symbioses (11:00 – 12:00)

11:00 – 11:30 Hermann Bothe (Cologne)

Arbuscular mycorrhiza, heavy metal and salt tolerance

11:30 – 12:00 Ralf Oelmüller (Jena)

Piriformospora indica: a cultivable symbiotic fungus with multiple biotechnological applications. Molecular analysis of its interaction with *Arabidopsis thaliana*

12:00 – 13:00 *Lunch*

• Plant Genomes (13:30 – 14:50)

13:30 – 13:50 Reinhold Herrmann (Munich)

Aspects of plant genome evolution

13:50 – 14:10 Yoshiki Nishimura (Tokyo)

Biased maternal inheritance of heteroplasmic chloroplast genomes possibly caused by preferential replication

14:10 – 14:30 Stefan Greiner (Munich)

Oenothera - a model to study speciation

14:30 – 14:50 Yoshi Yamamoto (Nagoya)

Identification and characterization of promoters scattered in the *Arabidopsis* genome

14:50 - 15:20 *Coffee Break*

• Prerequisites for intracellular symbioses (15:20 – 16:20)

Chair: M. Wagner

15:20 – 15:40 Karsten Fischer (Tromsø)

Function and evolution of plastid metabolite transporters

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15:40 – 16:00 Takuro Nakayama (Tsukuba)

Single origin of *Paulinella chromatophora* cyanelles

16:00 – 16:20 Tae In Ahn (Seoul)

Phagocytic responses of genes of *Legionella jeonii* related with endocellular lifestyle in *Amoeba proteus*

16:30 – 19:25 Boat Tour & Buffet at the "Hoisan" (east lakeside)

• Chloroplast Biogenesis (19:30 – 20:50) Chair: R. Herrmann

19:30 – 19:50 Lutz Eichacker (Munich)

Assembly of protochlorophyll *a* in dimeric cytochrome b_6/f precedes photosystem biogenesis in *Hordeum vulgare*

19:50 – 20:10 Jörg Meurer (Munich)

Phylogenetic and Ontogenetic Aspects of Chloroplast Biogenesis

20:10 – 20:30 Jörg Nickelsen (Munich)

Regulatory networks for postranscriptional steps of chloroplast gene expression in *Chlamydomonas*

20:30 – 20:50 Michael Schroda (Freiburg)

The chloroplast HSP70-chaperone system - is it involved in thylakoid biogenesis?

Thursday, September 13

• Hydrothermal vent symbioses, endosymbiotic bacteria (9:00 – 10:30) Chair: M. Horn

9:00 – 9:30 Tadashi Maruyama (Yokosuka)

Genome sequence of the thioautotrophic intracellular symbiont in a deep-sea clam, *Calyptogena okutanii*

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9:30 – 9:50 Hirokazu Kuwahara (Yokosuka)

Comparative genomics of chemoautotrophic symbionts in deep-sea *Calyptogena* clams

9:50 – 10:10 Andreas Brune (Marburg)

Endomicrobia: bacterial endosymbionts of termite gut flagellates

10:10 – 10:30 Elena Tönshoff (Vienna)

Adelgids (Hemiptera: Sternorrhyncha: Adelgidae) harbour novel proteobacterial endosymbionts

10:30 – 10:50 Coffee Break

• Endosymbiotic bacteria (11:00 –12:10) Chair: Andreas Brune

11:00 – 11:30 Michael Wagner (Vienna)

Deciphering the evolutionary links between Chlamydiae and their disparate free-living relatives

11:30 – 11:50 Matthias Horn (Vienna)

Protozoa as evolutionary playground for intracellular bacteria – the case of the Chlamydiae

11.50 – 12.10 Eva Heinz (Vienna)

Inclusion membrane proteins of *Protochlamydia amoebophila* UWE2

12:10 – 13:00 Lunch

• Poster Session II (13:00-14:00)

Aseeva (Munich), Bohne (Berlin), Fathinejad (Vienna), Gruber (Konstanz), Haider (Vienna), Nakamura (Nagoya), Obokata (Nagoya), Pribil (Munich), Sherameti (Jena), Wagner (Jena)

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• Secondary symbioses I (14:00 - 15:30) Chair: R. Hagemann

14:00 – 14.30 Tom Cavalier-Smith (Oxford)

Secondary symbiogenesis and the origin and diversification of chromalveolates

14:30 – 14:50 Peter Kroth (Konstanz)

Secondary Endocytobiosis and its Impact on Diatom Biology

14:50 – 15:10 Maik Sommer (Marburg)

An ERAD-derived preprotein translocator in the periplastid compartment of chromalveolates?

15:10 – 15.30 Ken-ichiro Ishida (Tsukuba)

Novel plastid-targeting signal located within the mature protein region is required for targeting RbcS precursors into chlorarachniophyte plastids

15:30 – 16:00 Coffee Break

• Secondary symbioses II (16:00 - 17:00) Chair: P. Kroth

16:00 – 16:20 Yuji Inagaki (Tsukuba)

Monophyly of chlorophyll-c containing plastids?: multi-gene phylogeny under the unlinked/separate model condition

16:20 – 16:40 Juraj Krajcovic (Bratislava)

The chloroplast genome of the flagellate *Euglena gracilis* is not lost as a single unit during drug-induced bleaching

16:40 – 17:00 Hironao Kataoka (Sendai)

A newly discovered blue light receptor of heterokonts

• Miescher-Ishida-Prize, Concluding Remarks (17:00 – 18:00)

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18:05 Departure of Bummelzug to Town Hall
18:15 Cocktail-Reception in the Town Hall
18:45 Bummelzug continues to Gasthof Grünberg
19:00 Congress Dinner
22:00 Bummelzug back to Toscana parking lot

Additional Information: Materials from our only company sponsor, Agrisera, will be on display in the lobby in front of the “Johann Ort” lecture room. Prof. Armin Geus (Basiliskenpresse, Marburg) will present the book „Evolution durch Kooperation und Integration” during Tuesday and Wednesday. A program for accompanying persons (visits to Hallstatt, Traunkirchen etc.) will be arranged upon demand.

Friday, September 14

The following after congress-tours are optional. Please confirm your participation:

1. Free admission to the salt mine of Hallstatt.



2. Free guided tour through the Konrad Lorenz Research Institute at Grünau. Transportation will be organized (car pool and minibus). The “Almsee” in the “Dead Mountains” range is an especially picturesque area (25 km from Gmunden).



3. Cable Car from Gmunden to the Gruenberg. Great views of the lake and the Traunstein. Guided Hike (2 hours in total) to the Laudachsee (900 m) and down to the Traunsee. Return to Gmunden by boat. Combination ticket approx. 6 Euro.

