



RESEARCH CONFERENCES

ESF Research Conference
Molecular Bioenergetics of Cyanobacteria:
From Cell to Community
10-15 April 2011

Chair: **Professor Cheng-Cai Zhang**, Université d'Aix-Marseille II and CNRS, FR Co-Chairs: **Professor Elke Dittmann**, University of Potsdam, DE **Professor Conrad Mullineaux**, Queen Mary University of London, UK

LIST OF POSTERS SESSION 1

| | Surname | First Name | Poster Title |
|---|--------------------------|-------------|---|
| 1 | Allahverdiyeva- Rinne | Yagut | Interplay between flavodiiron proteins and photorespiration in Synechocystis sp. PCC 6803 |
| 2 | Anfelt | Josefin | NNF Center of Biosustainability - the Royal Institute of Technology site: Cyanobacteria for fuel production |
| 3 | Apte | Shree Kumar | Genetic Modification of Nitrogen-fixing Anabaena strains for Basic Research and Eco-friendly Environmental Applications |
| 4 | Badri | Hanène | Molecular study of radiation resistance of Arthrospira sp. PCC 8005 |
| 5 | Baier | Antje | Degradation of the Phycobilisomes, a very large protein complex, is mediated by the small adaptor protein NbIA |
| 6 | Barthel | Sandra | Following Thylakoid Membrane Biogenesis in Synechocystis sp. PCC6803 |
| 7 | Battchikova | Natalia | The Ssl0352 protein is a novel subunit of the Synechocystis NDH-1 complexes |

| 8 | Bay | Guillaume | Chemical signaling during the establishment of an association between Nostoc and the two |
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| | Rasmussen | Ulla | feathermosses Pleurozium schreberi and Hylocomium splendens |
| 9 | Behrendt | Lars | New Endolithic Niches and Habitats for Chlorophyll D – Containing Cyanobacteria |
| 10 | Bes | María Teresa | Elucidation of the heme-binding site of the transcriptional repressor fura from anabaena sp. Pcc7120 by spectroscopic studies of mutant proteins |
| 11 | Botello-Morte | Laura | Role of cysteines in biological function of FurA from Anabaena sp. PCC 7120 |
| 12 | Burnat Clemente | Mireia | Cell envelope elements contributing to filament strength in Anabaena |
| 13 | Camargo Bernal | Sergio | Transcription activation during heterocyst differentiation in Anabaena sp. PCC 7120 |
| 14 | Cassier- Chauvat | Corinne | Role of glutathione and its analogs, ophthalmate and norophthalmate, in the metabolism and stress resistance of cyanobacteria |
| 15 | Cerveny | Jan | Metabolic rhythms of unicellular, nitrogen fixing cyanobacteria and possible interplay with modeled KaiABC circadian oscillator |
| 16 | Cheregi | Otilia | New-comer to the SCP family: the LilA protein |
| 17 | Chis | Ciprian | Patterns of expression of cyanobacterial psbA gene family under changing environmental conditions |
| 18 | Corrales Guerrero | Laura | Nitrogen-regulated P-type ATPase of the thylakoid membranes in vegetative cells of Anabaena sp. PCC 7120 |
| 19 | Deak | Zsuzsanna | Oscillating yield of flash-induced chlorophyll fluorescence decay in intact cells of Thermosynechococcus elongatus |
| 20 | Domínguez- Martín | María Agustina | Role of 2-oxoglutarate in the control of the N/C balance in Prochlorococcus |
| 21 | Düppre | Eva | Features and Functions of a DnaK-DnaJ Chaperone Network in the Cyanobacterium Synechocystis sp. PCC 6803 |
| 22 | Eaton-Rye | Julian | The Role of "Auxiliary" Proteins in Assembly and Function of Photosystem II in the Cyanobacterium Synechocystis sp. PCC 6803 |
| 23 | Ekman | Martin | Sugar transport in symbiotically competent Nostoc punctiforme |
| 24 | Encinas | David | Towards a reduced autotrophic chassis from Synechococcus elongatus PCC 7942 |
| 25 | Ermakova | Maria | Expression analysis reveals diverse functions for genes encoding flavodiiron proteins in Anabaena PCC 7120 |
| 26 | Fan | Yingping | The oxidative stress in Anabaena sp. PCC 7120 |
| 27 | Fillat | María F. | A role of FurA in the modulation of photosynthesis, iron uptake and cellular morphology is unravelled by overexpression of the regulator in Anabaena sp. PCC 7120 |

| 28 | Fokina | Oleksandra | Synechococcus elongatus PII Signal Transduction Protein: From 2-Oxoglutarate Sensing to Enzyme Control |
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| 29 | Gómez Ochoa De Alda | Jesús A. | Complexity of cAMP and cGMP signal transduction pathways in cyanobacteria |
| 30 | Guerrero | Fernando | Towards the improvement of cyanobacteria as biotechnological hosts using heterologous ethylene synthesis as a model system |
| 31 | Gutekunst | Kirstin | Transcriptional regulation of the bidirectional NiFe-hydrogenase in Synechocystis sp. PCC 6803 |
| 32 | Hertel | Stefanie | Threonine phosphorylated KaiC hexamers couple the clock gene expression rhythm and the post-translational oscillator in Synechococcus |
| 33 | Hu | Chen-Lin | Towards understanding the role of the ABC transporter McyH for the active transport of microcystin in Microcystis aeruginosa PCC7806 |
| 34 | Ininbergs Rasmussen | Karolina Ulla | Composition and diversity of nifH genes of nitrogen fixing cyanobacteria associated with boreal forest feather mosses |
| 35 | Janssen | Paul | A Genomic Survey of Energy Metabolism in Arthrospira sp. PCC 8005 |
| 36 | Kern | Ramona | Evolution of enzymes involved in the photorespiratory 2-phosphoglycolate cycle from cyanobacteria via algae toward plants |
| 37 | Khudyakov | Ivan | Extragenic suppressors can discriminate between hetN and patS, the negative regulators of heterocyst differentiation in Anabaena sp. PCC 7120 |
| 38 | Klemke | Friederike | Heterologous Expression of CphA2 in E. coli and Properties of an Anabaena variabilis cphA2 Mutant |
| 39 | Kuzminov | Fedor | Mechanisms of energy transfer and non-photochemical quenching in cyanobacterium Synechocystis sp. PCC 6803 |
| 40 | Laichoubi | Karim | Nitrogen interaction network in the cianobacterium <i>Synechococcus</i> WH5701, a model organism with two PipX and two PII-like proteins |
| 41 | Lechno-Yossef Wolk | Sigal C. Peter | Increasing hydrogen production by Anabaena sp. strain PCC 7120 |
| 42 | Leino | Hannu | Extended H2 photoproduction of N2-fixing cyanobacteria immobilized in alginate thin films |

| _ | | | SESSION 2 |
|----|--------------------|---------------------|---|
| | Surname | First Name | Poster Title |
| 1 | Liaimer | Anton | Diversity and biological activities of symbiotic Nostocacean |
| 2 | Lopez-Lozano | Antonio | Role of ORF alr4393 in Anabaena sp. PCC 7120 |
| 3 | Lopez-Maury | Luis | A new antibiotic resistance cassette for cyanobacterial research |
| 4 | Makower | Katharina | Secondary metabolite expression - regulatory aspects of the depsipeptide microviridin |
| 5 | Martin-Kinic | Camille | Comparative genomics of two filamentous freshwater cyanobacteria: the green-pigmented Planktothrix agardii strain PCC 7805 and the red-pigmented P. rubescens strain PCC 7821 |
| 6 | Meissner | Sven | The cyanobacterial hepatotoxin microcystin binds to proteins and increases the fitness of Microcystis under oxidative stress conditions |
| 7 | Mielke | Steven | Efficiency of oxygenic photosynthesis in the cyanobacterium, acaryochloris marina |
| 8 | Moronta Barrios | Felix Gabriel | Environmental Control of Phosphorylation Pathways in Synechococcus elongatus PCC 7942: The Branched NbIS to RpaB/SrrA Two-Component System |
| 9 | Muñoz-Marín | María Del Carmen | Uptake and utilization of glucose by Prochlorococcus SS120: genetic and proteomic characterization |
| 10 | Napolitano | Mauro | Differential expression of redundant threonyl-tRNA synthetase genes in Anabaena sp. PCC 7120 |
| 11 | Nasser | Amin | Alternative translation initiations responsible for the accumulation of two ferredoxin:NADP oxidoreductase isoforms are governed by the transcripts 5'UTR, in Synechocystis sp. PCC6803 |
| 12 | Neverov | Konstantin V. | Photophysical study of chlorophyll d from Acaryochloris marina. Phosphorescence and singlet oxygen photogeneration |
| 13 | Norling | Birgitta | A model for membrane organization and protein sorting in Synechocystis sp. PCC 6803 inferred from proteomics and multivariate sequence analyses |
| 14 | Nuernberg | Dennis | Regulation and Remodeling of Intercellular Communication in Heterocyst-forming Filamentous Cyanobacteria |
| 15 | Papageorgiou | George | Hyper-osmotic effects on the distribution of electronic excitation between the photosystem II and photosystem I core complexes |

Transcriptional regulators in Anabaena sp. PCC 7120

Development of a bioluminescent cyanobacterial reporter strain for detection of arsenite, arsenate, and

Low mobility of phycobiliprotein rods in chlorophyll-d containing cyanobacterium Acaryochloris marina

Peca

Prasil

Picossi Goni

Loredana

Silvia

Ondrej

antimonite

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| 19 | Raghavan | Prashanth S. | Oxidative stress tolerance conferred by overexpression of individual SOD proteins in Anabaena sp. strain PCC7120 |
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| 20 | Rantamäki | Susanne | Group 2 sigma factor mutants of Synechocystis sp. strain PCC 6803 show defects in low and high temperature acclimation |
| 21 | Renberg | Bjorn | NNF Center of Biosustainability - the Royal Institute of Technology site |
| 22 | Rexroth | Sascha | Proteomic and lipidomic techniques monitor high-light induced rearrangements in Synechocystis PCC6803 |
| 23 | Rubio | Vicente | Structural bases of PII-signaling through NtcA |
| 24 | Sandrini | Giovanni | Transcriptome analysis of C-limitation in Synechocystis |
| 25 | Schmetterer | Georg | Organo-heterotrophic growth capacities of Nostoc (Anabaena)sp. PCC 7120 |
| 26 | Sicora | Cosmin | Functional Diversity of D1 proteins of Photosystem II in Cyanobacteria |
| 27 | Srivastava | Ashish Kumar | A molecular investigation of cyanobacterial response to salinity – from Anabaena PCC7120 cells to natural community in rice fields |
| 28 | Stamatakis | Kostas | Hyper-osmotic effects on the distribution of electronic excitation between the photosystem I and photosystem I core complexes |
| 29 | Stanfield | Erin | Presence and Toxicity of Freshwater Toxic Cyanobacteria in Pinto Lake, Monterey Bay Area, California. |
| 30 | Summerfield | Tina | Investigating a low oxygen induced gene cluster and hydrogen production in cyanobacteria |
| 31 | Telfer | Alison | Purification of active Photosystem II from Acaryochloris marina: an ongoing story |
| 32 | Toscano Selão | Tiago | Composition and biogenesis of the thylakoid membrane lipids in Synechocystis sp. PCC 6803 |
| 33 | Vass | Istvan Zoltan | Influence of DNA damage and repair on the ability of cyanobacterial cells to repair UV-B radiation induced damage to the Photosystem II complex |
| 34 | Velichko | Nataliya | Presence of Prochlorothrix sp. in the Finnish Bay and neighboring inland waters |
| 35 | Vieille | Claire | Cell-specific gene expression in Anabaena variabilis grown phototrophically, photoheterotrophically, and heterotrophically |
| 36 | Wallner | Thomas | Functional analysis of the Synechocystis sp. Pcc 6803 ycf34 gene product, an ortholog of a conserved chloroplast open reading frame |
| 37 | Weyman | Philip | Expression of oxygen-tolerant [NiFe] hydrogenases in Synechococcus elongatus |
| 38 | Wiegard | Anika | Non-standard circadian clock systems in cyanobacteria |
| 39 | Zhang | Li-Chen | Cell-cell communication in filamentous cyanobacterium Anabaena |

| 40 | Zhang | Lifang | Characterization of the outer membrane proteome of Synechocystis sp. PCC 6803 |
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| 41 | Zilliges | Yvonne | Glycogen deficiency affects the response to nitrogen starvation in the cyanobacterium Synechocystis sp. PCC 6803 |

INSTRUCTIONS:

Posters will be divided between TWO sessions as follows:

Surnames A - L: On display: Monday (from lunch time) and Tuesday - Poster session 1

Surnames L - Z: On display: Wednesday (from lunch time) and Thursday - Poster session 2