Programme of 3rd Plant NO Club, Olomouc (Czech Republic), July 15-16, 2010

Thursday, July 15th

08.00-12.00 Registration

09:25 Welcome and introduction

Opening talks

09:30 – 10:10 L1 Jan Hrbáč NO detection by electrochemical methods

10:10 – 10:40 L2 Kapuganti Jagadis Gupta Nitric oxide biosynthesis in plants: A special focus on mitochondrial NO pathways

Coffee

SESSION 1: NO production and detection (chairman Javier Corpas)

11:20 – 11:50 L3 Luis Mur Nitric oxide generation triggers ethylene mediated resistance against *Botrytis cinerea* in tomato (*Solanum esculentum*) and *Arabidopsis*

11:50 – 12:15 L4 Stefan Rümer 4,5-diaminofluorescein (DAF)-fluorescence in complete absence of nitric oxide: H₂O₂ plus peroxidase released from elicited tobacco suspension cells produce two novel highly fluorescing DAF-products

12:15 – 12:30 Mark Higgins, Analytix UK (*Sponsor presentation*) Versatile chemiluminescence instrumentation for NO detection

13:00 Lunch at St. Wenceslas Brewery



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SESSION 2: NO signalling (chairman John Hancock, Massimo Delledonne)

14:30 – 15:00 L5 Christian Lindermayr Redox control of the NPR1–TGA1 system of *Arabidopsis thaliana* by nitric oxide

15:00 – 15:30 L6 Elodie Vandelle Regulation of MAPK cascade by peroxynitrite-mediated Tyr-nitration in *Arabidopsis thaliana*

15:30 – 15:50 L7 Alexander Boscari Is nitric oxide a regulator of legume nodule development?

Coffee

16:20 – 16:40 L8 Ferenc Horváth Nitric oxide modulates guard cell photosynthesis

16:40 – 17:00 L9 Urszula Krasuska NO-mediated dormancy removal of apple embryos results in modification in ethylene biosynthetic pathway

17:00 – 17:20 L10 Rinukshi Wimalasekera A copper amine oxidase, CuAO1 in *Arabidopsis* is involved in ABA mediated stress responses and NO biosynthesis

17:20 – 17:40 L11 G. Manjunath Achieving desirable ripening and shelf life extension of banana var. Cavendish by elicitation of endogenous nitric oxide and genetic regulation of signaling network

17:40 – 18:10 Sponsor presentation: Eppendorf CZ, Olympus Czech & Slovakia

18:30 Poster session

20:00 Welcome party with beer tasting at St. Wenceslas Brewery

Friday, July 16th

SESSION 3: NO and biotic stress (chairman Luis Mur)

09:30 – 10:00 L12 Gary Loake S-nitrosylation: Charting the molecular landscape in plant immunity

10:00 – 10:30 L13 Jeremy Astier Identification and characterization of NO target proteins in cryptogein elicited-tobacco cells

Coffee

11:00 – 11:20 L14 Frank Gaupels Peroxynitrite formation during the resistance response of *Arabidopsis thaliana* to avirulent *Pseudomonas syringae* is involved in the regulation of pathogen-induced gene expression

11:20 – 11:40 L15 Jan Lochman The role of nitric oxide in triggering of defence response by ergosterol

11:40 – 12:00 L16 Jolanta Floryszak-Wieczorek Nitric oxide generation leading to SAR in potato leaves

13:00 Lunch at St. Wenceslas Brewery

SESSION 4: NO and abiotic stress (chairman Jörg Durner)

14:30 – 14:50 L17 Magdalena Arasimowicz-Jelonek Nitric oxide and NADPH-oxidase dependent oxidative burst is required for cadmium-induced programmed cell death in lupine roots 14:50 – 15:10 L18 Zsuzsanna Kolbert The effect of heavy metal-induced reactive oxygen- (ROS) and nitrogen species (RNS) generations on cell viability of pea roots

15:10 – 15:30L19Morad AirakiLow temperature induces nitrosative and oxidative stress in pepper plants

15:30 – 15:50 L20 Raquel Valderrama The metabolic status of RONS modulates the response to salinity stress in olive plants

Coffee

SESSION 5: NO and abiotic stress / NO signalling II (chairman David Wendehenne)

16:30 – 16:50 L21 Tanou Georgia

The role of roots as modulators of nitric oxide and hydrogen peroxide defence signalling in citrus

16:50 – 17:10 L22 Yarina Sheremet Nitric oxide effects on organization of cortical microtubules in *Arabidopsis thaliana* root cells

17:10 – 17:30 L23 Maria José Jimenéz-Quesada Nitric oxide production during olive flowering and *in vitro* pollen germination

Discussion and Conclusions (Werner Kaiser)

20:00 NO dinner, NO party in Konvikt Restaurant