Plant stress limits agricultural productivity and ecosystem function and occurs when plants undergo to suboptimal conditions as a result of abiotic factors – drought, soil pollution, high and low temperatures - and biotic agents.

Research advances have increased our understanding of the molecular basis of plant stress responses. Meanwhile many important issues are still poorly understood, and there are intriguing chances for basic and applied research.

The aim of this workshop is to present an update on plant stress research and to address key interdisciplinary actions.

The participation at this event is free of charge, but prior e-mail registrations are welcome for organization purpose.

L. Sebastiani — Biolabs–SSSA

A. Andreuccci — Dip. Biologia UNIPI

Con il contributo della

FONDAZIONE CASSA DI RISPARMIO DI SAN MINIATO

- Information –

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SCUOLA SUPERIORE SANT'ANNA PISA

UNIVERSITÀ DI PISA

Plant Stresses

Workshop

27th October 2009

Scuola Superiore Sant'Anna

Aula Magna

Program

9:00 – 9:15 Welcome Address

9:15 – 9:45 Keynote lecture

ABA perception and signal transduction

J.K. Zhu

Institute for Integrative Genome Biology, University of California, Riverside, USA

9:45 – 10:00

Drought stress response in cereals: cloning and transcriptional analysis of drought responsive genes

Gulli M. [1], Malatrasi M. [12], Close T. [2], Marmiroli N. [1]

[1]Dept. Environmental Sciences, University of Parma; [2]Dept. Botany and Plant Sciences, University of California, Riverside

10:00 – 10:15

Heavy metal stress in poplar: biochemical and molecular studies.

Di Baccio D.[1], Andreucci A. [2], Tognetti R. [3], Minnocci A. [1], Sebastiani L. [1]

[1]BioLabs, Scuola Superiore Sant'Anna, Pisa; [2]Dept. of Biology, University of Pisa; [3]EcoGeoFor Lab, University of Molise.

10:15 – 10:30

Arsenic tolerance in Pteris vittata and effects induced by the arbuscular mycorrhizal symbiosis.

Berta G., Bona E., Cattaneo C., Cantamessa S., Marsano F., D'Agostino G., Lingua G., Cesaro P., Aimo S., Cavalletto M.

Dipartimento di Scienze dell'Ambiente e della Vita, Alessandria

10:30 – 10:45

Integration of XAS techniques and genetic methodologies to explore Cs-tolerance in Arabidopsis

Marmiroli M. [1], Visioli G. [1], Antonioli G. [2], Maestri E. [1], Marmiroli N. [1]

[1]Dept. Environmental Sciences; [2]Department of Physics, University of Parma

10:45 – 11:00

Coffee Break

11:00 – 11:30 Keynote lecture

The role of host small RNAs and small RNA machinery in plant immunity

H. Jin

Department of Plant Pathology and Microbiology, University of California, Riverside, USA

11:30 – 11:45

How do plants perceive ozone and cope with it? The poplar case study

Castagna A., Ranieri A.

Department of Agricultural Chemistry and Biotechnology, University of Pisa

11:45 – 12:00

Role of Volatile Organic Compounds in leaf protection against oxidative stress

Calfapietra C., Loreto F.

Institute of Agro-Environmental & Forest Biology (IBAF), CNR, Roma

12:00 – 12:15

Resin defense of conifers against the attack of pest and diseases

Michelozzi M.

Institute of Plant Genetics, CNR, Firenze

12:15 – 12:30

Plant-environment interactions: the rootstock and soil effects on transcriptome variation in grape

Marè C., Aprile A., Tocci E., Corino L., Cattivelli L.

CRA, Genomics Research Centre, Fiorenzuola D'Arda

12:30 – 12:45

Postharvest stress: biochemical and molecular aspects of wine grape berry dehydration

Bonghi C. [1], Rizzini F.M. [1], Tonutti P. [2]

[1]Dept. Environ. Agronomy & Crop Science, University of Padova

[2]BioLabs, Scuola Superiore Sant'Anna, Pisa

12:45 – 13:00

The involvement of the receptor kinase CRK20 in the response to Pseudomonas syringae

Madeo L., Ederli L., Pasqualini S.

Department of Applied Biology, University of Perugia

13:00 – 13:15

Role of polygalacturonases in plant/fungi interaction

[1,2]Vergara M., [2]Vannacci G.

[1]Scuola Normale Superiore, Pisa; [2]Dept. Tree Science, Entomol. and Plant Pathol. G. Scaramuzzi, Section Plant Pathology, University of Pisa

13:15 – General Discussion