

14th International Conference on Reactive Oxygen and Nitrogen Species in Plants

	10. July 2019
8:30-9:15	Registration
9:15-9:30	Welcome address, opening remarks
	Session I: Concepts and Directions in Redox Signaling Research
	Chair: Ilse Kranner, Karl-Josef Dietz
9:30-10:00	Conrad, Marcus (Institute of Developmental Genetics, HMGU, München) FERROPTOSIS, A METABOLIC DEATH PATHWAY
10:00-10:30	Foyer, Christine (University of Birmingham, Birmingham) CONCEPTS AND DIRECTIONS IN REDOX SIGNALING IN PLANTS
10:30-10:45	Discussion
10:45-11:20	Coffee break
11:20-11:40	Astier, Jeremy (University of Burgundy, Dijon) THE EVOLUTION OF NITRIC OXIDE SIGNALLING DIVERGES BETWEEN THE ANIMAL AND THE GREEN LINEAGES
11:40-12:00	Müller-Schüssele, Stefanie (University of Bonn, Bonn) CHLOROPLASTS REQUIRE GLUTATHIONE REDUCTASE TO BALANCE REACTIVE OXYGEN SPECIES AND MAINTAIN EFFICIENT PHOTOSYNTHESIS
12:00-12:20	Lindermayr, Christian (Institute of Biochemical Plant Pathology, HMGU, München) S-NITROSOTHIOLS AS ARCHITECTS OF THE HISTONE PTM PATTERN AND DNA-METHYLATION IN <i>ARABIDOPSIS THALIANA</i>
12:20-12:45	Elevator Pitch I
12:45-14:30	Lunch, Poster session I (uneven numbers)
	Session II: New Tools for Redox Signaling Research
	Chair: Sabine Lüthje, Frank van Breusegem
14:30 - 15:00	Waldeck-Weiermair, Markus (Medical University of Graz, Graz) YES TO NO? BIOSENSORS
15:00 - 15:30	Licausi, Francesco (University of Pisa, Pisa) THE JANUS FACE OF PLANT HYPOXIA
15:30 - 15:50	Mittler, Ron (University of Missouri, Columbia) THE ROS WAVE: ITS REAL-TIME WHOLE-PLANT DETECTION, FUNCTION AND CHARACTERIZATION
15:50 - 16:20	Coffee break
16:20 - 16:40	Messens, Joris (VIB-VUB, Brussel) MINING FOR PROTEIN S-SULFENYLATION IN <i>ARABIDOPSIS THALIANA</i> UNCOVERS NEW REDOX-SENSITIVE SITES
16:40 - 17:00	Bykova, Natalia (Agriculture and Agri-Food Canada, Morden) INTEGRATED PROTEOGENOMIC, QUANTITATIVE REDOX PROTEOMIC AND METABOLOMIC APPROACHES REVEAL SIGNATURES OF SEED DORMANCY CONTROL IN WHEAT
17:00 - 17:20	Fitzpatrick, Duncan (Turku University, Turku) NEW ANALYTICAL METHOD ENABLING REAL-TIME H ₂ O ₂ DETECTION IN THYLAKOIDS SHOWS THAT PSI UNIQUELY GENERATES CHLOROPLASTIC H ₂ O ₂ SIGNAL
17:20 - 17:40	Birkemeyer, Claudia (University of Leipzig, Leipzig) PITFALLS IN ACCURATE ANALYSIS OF REACTIVE CARBONYL COMPOUNDS FROM BIOLOGICAL SAMPLES
17:45 – 18:30	Plant Oxygen Group meeting

Elevator Pitch I (10. July)

Nr.	Name, Organisation, Place	Title
1	Wrzaczek, Michael (University of Helsinki, Helsinki)	THE ROLE OF REACTIVE OXYGEN SPECIES IN RECEPTOR-LIKE KINASE SIGNALING AND VICE VERSA
2	Minibayeva, Farida (Institute of Biochemistry and Biophysics, Kazan)	PLANT AUTOPHAGY IN CROSSTALK BETWEEN OXIDATIVE STRESS, REDOX SIGNALING AND ENERGY METABOLISM
3	Caccamo, Anne (University of Liege, Liege)	DEFINING H ₂ O ₂ SIGNALING FROM MITOCHONDRIA AND CHLOROPLAST TO THE NUCLEUS IN <i>CHLAMYDOMONAS REINHARDTII</i>
4	Kangasjärvi, Saijaliisa (University of Turku, Turku)	POST-TRANSLATIONAL REGULATION OF ORGANELLE-INDUCED STRESS RESPONSES
5	Shapiguzov, Alexey (University of Helsinki, Helsinki)	LINKING THE CHLOROPLAST NTRC THIOREDOXIN SYSTEM TO MITOCHONDRIAL AOX ACTIVITY
6	Nguyen, Thuy Dung (Vrije Universiteit Brussel, Brussel)	DEFINING THE INTER-ORGANELLAR REDOX COMMUNICATION IN <i>CHLAMYDOMONAS REINHARDTII</i>
7	Kikurakku, Kana (Shimane University, Matsue)	DISTINCT IMPACTS OF CYTOSOLIC AND CHLOROPLASTIC ASCORBATE PEROXIDASES ON CELL DEATH IN CATALASE-DEFICIENT PLANTS.
8	Wurm, Christoph (Helmholtz Zentrum München, München)	REGULATION OF HISTONE DEACETYLASE ACTIVITY IN <i>ARABIDOPSIS</i> BY REDOX-SPECIES
9	He, Huaming (VIB-Center for Plant Systems Biology, Ghent)	CHARACTERIZATION OF A NOVEL OXIDATIVE STRESS-RESPONSIVE METHYLTRANSFERASE IN <i>ARABIDOPSIS THALIANA</i>
10	Zhao, Feng (Helmholtz Zentrum München, München)	COMMON RAGWEED (<i>AMBROSIA ARTEMISIIFOLIA</i>): SYSTEMS BIOLOGY OF THE ALLERGENIC POLLEN UPON ELEVATED NO ₂ CONCENTRATIONS

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	11. July 2019
	Session III: ROS and redox-active Gases in Development and Plant Physiology
	Chair: Elizabeth Vierling, Ismail Turkan
9:00-9:30	David Wendehenne (University of Burgundy, Dijon) NITRIC OXIDE SYNTHASE IN PLANTS: WHERE DO WE STAND?
9:30-10:00	Jaakko Kangasjärvi (University of Helsinki, Helsinki) COORDINATION OF CHLOROPLASTIC AND MITOCHONDRIAL ROS SIGNALING
10:00-10:20	Igamberdiev, Abir (Memorial University of Newfoundland, St. Johns) THE INVOLVEMENT OF MITOCHONDRIAL ELECTRON TRANSPORT CHAIN COMPONENTS IN NITRIC OXIDE METABOLISM IN PLANTS
10:20-10:50	Coffee break
10:50-11:10	Miller, Gad (Baar Ilan University, Ramat Gan) POLLEN FERTILITY AND THE ROLE OF ROS AND REDOX HOMEOSTASIS IN HEAT STRESS TOLERANCE DURING SEXUAL REPRODUCTION
11:10-11:30	Corpas, Francisco J (Spanish National Research Council, Granada) ARABIDOPSIS NITRIC OXIDE (NO) CONTENT IS MODULATED BY THE CHLOROPLAST MEMBRANE K^+/H^+ ANTIPORTERS, ATKEA1 AND ARKEA2
11:30-11:50	Meyer, Andreas (University of Bonn, Bonn) ERO-MEDIATED THIOL OXIDATION IS ESSENTIAL FOR PLANT ER REDOX HOMEOSTASIS AND ETHYLENE SIGNALLING
11:50-12:15	Elevator Pitch II
12:15-14:00	Lunch, Poster session II (even numbers)
	Session IV: Redox Signaling - Abiotic and Biotic Stress Response I
	Chair: Christine Foyer, Jaakko Kangasjärvi
14:00-14:30	Kranner, Ilse (University of Innsbruck, Innsbruck) ELEVATED TEMPERATURES AND DROUGHT DURING SEED MATURATION AFFECT REDOX SIGNALING
14:30-15:00	Mhamdi, Amna (Ghent University, Ghent) MEDIATOR AND ELONGATOR SUBUNITS REGULATE H_2O_2 SIGNALING AND RESPONSES TO OXIDATIVE STRESS
15:00-15:20	Koh, Eugene (Weizmann Institut, Rehovot) SINGLET OXYGEN MEDIATED STRESS RESPONSES ARE GOVERNED BY RNA OXIDATION AND ATTENUATION OF CELLULAR TRANSLATION
15:20 - 15:50	Coffee break
15:50 - 16:10	Martins, Laura (University of Perpignan, Cedex) FAST REDOX RESPONSE OF IRON-SULFUR GLUTAREDOXIN GRXS17 ACTIVATES ITS HOLDASE ACTIVITY AND PROTECTS PLANTS FROM HEAT STRESS
16:10 - 16:30	Schmidt, Romy (RWTH Aachen, Aachen) THE MKKK70-MKK4-MPK3 CASCADE AND LORD1 MODULATE ROS-DEPENDENT SERF1 TRANSCRIPTION FACTOR ACTIVITY TO COORDINATE THE INITIAL RESPONSE TO SALT STRESS IN RICE
16:30 - 16:55	Phil Mullineaux (University of Essex, Colchester) HYDROGEN PEROXIDE- AND REDOX-MEDIATED SIGNALLING: WHERE WE ARE NOW OR HISTORY IS BUNK
16:55 - 17:25	Breakout discussion: New ideas/challenges (Moderator: Karl-Josef Dietz)
19:00	Congress dinner (Augustiner-Keller)

Elevator Pitch II (11. July)

Nr.	Name, Organisation, Place	Title
1	Shabala, Sergey (University of Tasmania, Hobart)	NADPH OXIDASE-MEDIATED "ROS-Ca ²⁺ HUB" IN SIGNALLING AND ADAPTATION TO SALINITY AND FLOODING
2	Cimini, Sara (Università Campus Bio-Medico, Rome)	EFFECTS OF SALT STRESS EXPOSURE IN <i>Oryza Sativa</i> PLANTS: A FOCUS ON THE H ₂ O ₂ SIGNATURE AND ANTIOXIDATIVE PROFILE
3	Roach, Thomas (University of Innsbruck, Innsbruck)	THE ROLE OF REACTIVE ELECTROPHILE SPECIES IN THE ACCLIMATION TO HIGH LIGHT
4	Frank, Lena (Helmholtz Zentrum München, München)	ISOPRENE, MONO- AND SESQUITERPENES CONFER NO-MEDIATED IMMUNITY IN NEIGHBORING <i>ARABIDOPSIS</i> PLANTS THEREBY ENHANCING THE RESISTANCE TO MICROBIAL PATHOGENS
5	Takáè, Tomáš (Palacký University Olomouc, Olomouc)	DEVELOPMENTAL EXPRESSION AND SUBCELLULAR LOCALISATION OF IRONIC SUPEROXIDE DISMUTASE 1 IN <i>ARABIDOPSIS</i>
6	Alche, Juan de Dios (Estacion Experimental del Zaidin, Granada)	DEVELOPMENTAL MONITORING OF GLUTATHIONE REDUCTASE ACTIVITY, EXPRESSION, CELL LOCALIZATION AND MOLECULAR VARIABILITY REVEALS ITS RELEVANCE IN THE MAINTENANCE OF REDOX HOMEOSTASIS IN MALE GAMETOPHYTE OF THE OLIVE TREE (<i>OLEA EUROPAEA</i> L.)
7	Miyake, Chikahiro (Kobe University, Kobe)	P700 OXIDATION SUPPRESSES THE PRODUCTION OF REACTIVE OXYGEN SPECIES (ROS) IN PHOTOSYSTEM I OF THYLAKOID MEMBRANES: ROBUST MECHANISMS TO ALLEVIATE OXIDATIVE DAMAGES IN PHOTOSYNTHESIS ORGANISMS
8	Kolbert, Zsuzsanna (University of Szeged, Szeged)	SIGNAL INTERACTION BETWEEN NITRIC OXIDE (NO) AND RHO GTPASES DURING ROOT GROWTH
9	Seckin Dinler, Burcu (Sinop University, Sinop)	NPR1 REGULATED REACTIVE OXYGEN SPECIES SIGNALLING IN SOYBEAN UNDER STRESS
10	Kučko, Agata (Warsaw University of Life Sciences-SGGW, Warsaw)	ROLE OF ARGONAUTE PROTEINS IN POST-TRANSCRIPTIONAL REGULATION OF EXPRESSION OF GENES INVOLVED IN ROS METABOLISM DURING LIGHT-DEPENDENT GERMINATION OF <i>ARABIDOPSIS</i> SEEDS

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	12. July 2019
	Session V: Redox Signaling – Abiotic and Biotic Stress Response II
	Chair: Gary Loake, Javier Corpas
9:00 - 9:30	Bäurle, Isabel (University of Potsdam, Potsdam) ADAPTATION TO ENVIRONMENTAL STRESS BY A DYNAMIC CHROMATIN-BASED STRESS MEMORY
9:30 - 10:00	Czarnocka, Weronika (Warsaw University of Life Sciences, Warsaw) LSD1, EDS1 AND PAD4 INVOLVEMENT IN ROS REGULATION AND STRESS RESPONSE IN PLANTS
10:00 - 10:20	Frunghillo, Lucas (University of Edinburgh, Edinburgh) PLANT PATHOGENS HIJACK HOST REDOX INTERMEDIATES TO SUPPRESS IMMUNE SIGNALLING NETWORKS
10:20 - 10:50	Coffee break
10:50 - 11:10	Király, Lóránt (Hungarian Academy of Sciences, Budapest) REACTIVE OXYGEN SPECIES CONTRIBUTE TO THE SYMPTOMLESS, EXTREME RESISTANCE TO POTATO VIRUS X IN TOBACCO
11:10 - 11:30	Mata-Perez, Capilla (University of Edinburgh, Edinburgh) THIOREDOXINS CONTROL SPECIFIC NITRIC OXIDE SIGNALLING BRANCHES IN PLANT IMMUNITY
11:30 - 11:50	Szarka, András (Budapest University of Technology and Economics, Budapest) THE RESPONSE OF UNCOUPLING PROTEINS TO BACTERIAL ELICITOR INDUCED OXIDATIVE BURST
11:50 - 12:10	Bauer, Sibylle (Institute of Biochemical Plant Pathology, HMGU, München) THE 2-HYDROXY CARBOXYLIC ACID ISOLEUCIC ACID MODULATES DEFENSE AND GROWTH IN <i>ARABIDOPSIS THALIANA</i>
12:10 - 13:15	Lunch
	Session VI: Antioxidative Systems and Stress Tolerance
	Chair: Laura De Gara, Stanislaw Karpinski
13:15 - 13:40	Vierling, Elizabeth (University of Massachusetts, Amherst) MITOCHONDRIAL MTERF PROTEINS AND STRESS TOLERANCE
13:40 - 14:05	Turkan, Ismail (Ege University, Izmir) REACTIVE CARBONYL SPECIES (RCS) METABOLISM AND SIGNALING IN GLYCOPHYTIC MODEL <i>ARABIDOPSIS THALIANA</i> AND HALOPHYTIC MODEL <i>EUTREMA PARVULUM</i>
14:05 - 14:25	Nurbekova, Zhadyrassyn (Ben Gurion University, Beersheeba) ALDEHYDE OXIDASE 3 THAT CATALYZES THE LAST STEP OF ABA BIOSYNTHESIS ACTS AS A REACTIVE CARBONYL ALDEHYDES DETOXIFIER
14:25 - 14:45	Dreyer, Anna (University of Bielefeld, Bielefeld) FUNCTION AND REGULATION OF THE PLASTID PEROXIREDOXIN II E
14:45 - 15:05	Schippers, Jos (Leibniz Institute of Plant Genetics and Crop Plant Research, Gatersleben) THE MOONLIGHTING FUNCTION OF SUPEROXIDE DISMUTASE DEPENDS ON A NOVEL CLASS OF TRANSCRIPTIONAL CO-ACTIVATORS
15:05 - 15:25	Best-Poster-Award sponsored by “Agrisera” and “Antioxidants” and closing remarks