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| | Day 1<br>**Tuesday, June 3, 2025** | | |
| 07:30 – 09:00 | **Registration** (desk open during entire conference) / Poster and exhibition set-up | | |
| 09:00 – 09:30 | **Welcome Session** *(BAH)*<br>**Kasia Goljanek Whysall** *(Chair of Local Organising Committee),* **Giuseppe Valacchi** *(President of SFRR-E),* **Giovanni E. Mann** *(Past President of SFRRI)*, and **Enrique Cadenas** *(Chair of the OCC Board of Directors)* | | |
| 09:30 – 10:00 | **SFRR-I Trevor Slater Award Lecture** I *(BAH)*<br>*Chairs: Hozumi Motohashi (Department of Medical Biochemistry, Tohoku University Graduate School of Medicine, Sendai, Japan), and Nina Dickerhof (Mātai Hāora, Centre for Redox Biology and Medicine, Department of Pathology and Biomedical Science, University of Otago Christchurch, Christchurch, New Zealand)*<br>---<br>AL_01 **Giovanni E. Mann** *(School of Cardiovascular and Metabolic Medicine & Sciences, King's British Heart Foundation Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.)*<br>**Redox and nitric oxide signaling under physiological oxygen levels** | | |
| 10:00 – 10:30 | **SFRR-I Trevor Slater Award Lecture** II *(BAH)*<br>*Chairs: Chang Chen (Institute of Biophysics, Chinese Academy of Sciences, Beijing, China), and Juan Sastre (Department of Physiology, Faculty of Pharmacy, University of Valencia, Valencia, Spain)*<br>---<br>AL_02 **Michael J. Davies** *(Department of Biomedical Science, University of Copenhagen, Copenhagen, Denmark)*<br>**Protein modifications in cardiovascular disease revisited: what, where and how much?** | | |
| 10:30 – 11:00 | Coffee / Poster viewing / Exhibition *(BAH, HBB)* | | |
| 11:00 – 11:30 | **Symposium I** - **In vivo redox biochemistry across the span of life** *(BAH)*<br>*Chairs: Thomas M. Michel (Brigham and Women's Hospital, Harvard Medical School, Harvard University, Boston, MA, USA), and Sharon Glynn (School of Medicine, University of Galway, Galway, Ireland)*<br>---<br>S I_01 **Helmut Sies** *(Institute of Biochemistry and Molecular Biology I, Faculty of Medicine, Heinrich-Heine-University* | 11:00 – 11:30 | **Symposium II** - **Role of redox regulation in neural differentiation** *(HBB)*<br>*Chairs: Christian Gonzalez-Billault (Universidad de Chile, Santiago de Chile, Chile), and Carsten Berndt (Heinrich-Heine University, Düsseldorf, Germany)*<br>---<br>S II_01 Laura Belleri, Gonzalo Rios Concepcion, Sofia Petrucci, Mayrone Mongellaz, Alice Pailleret, Xia Tang, Jie He, Xavier Guillonneau, Olivier Goureau, Filippo Del Bene, and **Shahad** |


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| | *Düsseldorf, and Leibniz Research Institute for Environmental Medicine, Düsseldorf, Germany)*<br>**Essential lifelong redox reactions: from fertilization to cell death** | | **Albadri** *(Institut de la Vision, Sorbonne Université, UMR_S968, UMR_7210, Paris, France)*<br>**Redox signaling in retinal progenitor cell differentiation** |
| 11:30 – 12:00 | S I_02 **Fotios Spyropoulos,** Apabrita Ayan Das, Markus Waldeck-Weiermair, Shambhu Yadav, Ruby Guo, Arvind K. Pandey, Taylor A. Covington, Mark Perrella, Xiaoli Liu, Helen Christou, and Thomas Michel *(Cardiovascular Medicine Division and Department of Pediatrics Brigham and Women's Hospital, Boston, Harvard Medical School, Harvard University, Boston, MA, USA)*<br>**In utero oxidative stress: Uncovering links to cardiomyocyte reprogramming and heart failure of prematurity** | 11:30 – 12:00 | S II_02 **Carsten Berndt** *(Heinrich-Heine University, Düsseldorf, Germany)*<br>**Glutaredoxin-mediated differentiation of neural stem/progenitor cells** |
| 12:00 – 12:30 | S I_03 **Marc Fransen** *(Department of Cellular and Molecular Medicine, KU Leuven, Leuven, Belgium)*<br>**Peroxisome dysfunction and hydrogen peroxide signaling in age-related pathologies** | 12:00 – 12:30 | S II_03 **Christian Gonzalez-Billault** *(Departments of Biology and Neurosciences, Public Health Unit, Institute for Nutrition and Food Technologies, Universidad de Chile, Santiago, Chile)*<br>**NADPH functions in neural cells: lessons from neurons and microglia** |
| | **SFRR-E Annual Award Lecture** *(BAH)*<br>*Chairs: Michael J. Davies (Department of Biomedical Science, University of Copenhagen, Copenhagen, Denmark), and Aphrodite Vasilaki (Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Sciences, Faculty of Health & Life Sciences, University of Liverpool, Liverpool, U.K.)*<br>---------- | | |
| 12:30 – 13:00 | AL_03 **Daniela Caporossi** *(Department of Movement, Human and Health Sciences, University of Rome "Foro Italico", Rome, Italy)*<br>**Reactive oxygen species in exercise biology: from adaptive response to cell signalling and beyond** | | |
| 13:00 – 14:00 | Lunch / Poster viewing / Exhibition *(BAH, HBB)-* | | |
| | **SFRR-I Lester Packer Award Lecture** *(BAH)*<br>*Chairs: Cesar C. Fraga (Fisicoquimica, Facultad de Farmacia y Bioquimica, IBIMOL, Universidad de Buenos Aires, CONICET, Buenos Aires, Argentina), and Enrique Cadenas (Pharmacology and Pharmaceutical Sciences, USC Mann School of Pharmacy and Pharmaceutical Sciences, University of Southern California, Los Angeles, CA, USA)*<br>---------- | | |
| 14:00 – 14:30 | AL_04 **Giuseppe Poli** *(Department of Clinical and Biological Sciences, University of Torino at San Luigi Hospital, Orbassano, Turin, Italy)*<br>**Oxysterols: from molecular biology to medicine** | | |


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| | **Selected Oral Presentations I - Redox signalling & molecular biology** *(BAH)*<br>*Chairs: Ann Cuypers (Hasselt University, Diepenbeek, Belgium), and Alfonso Pompella (University of Pisa, Italy)*<br>---------- | | **Selected Oral Presentations II – Vascular biology, inflammation and redox chemistry** *(HBB)*<br>*Chairs: Josiane Cillard (University of Rennes, Rennes, France), and Giovanni E. Mann (School of Cardiovascular and Metabolic Medicine & Sciences, King's British Heart Foundation Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.)*<br>---------- |
| 14:30 – 14:45 | OP I_01 **Ivan Gout** *(Department of Structural and Molecular Biology, University College London, London, U.K.)*<br>**Coenzyme A biology, but not as we know it** | 14:30 – 14:45 | OP II_01 Claire Fayad, Alexey Afonin, Laura Mussalo, Riikka Lampinen, Pasi Jalava, **Katja M. Kanninen** *(A.I. Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland)*<br>**Temporal assessment of the NRF2 antioxidant response signaling induced by air pollution exposure** |
| 15:45 – 15:00 | OP I_02 **Tian Ye** *(Institute of Genetics and Developmental Biology, Beijing, China)*<br>**Mitochondrial Superoxide Regulates Nuclear Envelope Integrity and Aging via Redox-Mediated Lipid Metabolism** | 14:45 – 15:00 | OP II_02 **Markus Waldeck-Weiermair**, Apabrita A Das, Taylor Covington, Shambhu Yadav, Tanoy Dutta, Fotios Spyropoulos, Arvind K Pandey, and Thomas Michel *(Cardiovascular Division, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA)*<br>**Regulation of receptor-modulated endothelial NADPH oxidases isoforms by dynamic subunit interchange** |
| 15:00 – 15:15 | OP I_03 **Alma Martínez**, Paula Martínez-Cenalmor, and Dolores Pérez-Sala *(Centro de Investigaciones Biológicas Margarita Salas, CSIC, Madrid, Spain)*<br>**Intracellular pH modulates the remodeling of vimentin filaments into biomolecular condensates elicited by oxidative stress** | 15:00 – 15:15 | OP II_03 **Seiryo Ogata**, Tetsuro Matsunaga, Masanobu Morita, Minkyung Jung, Uladzimir Barayeu, Tsuyoshi Takata, Hozumi Motohashi, and Takaaki Akaike *(Department of Environmental Medicine and Molecular Toxicology, Tohoku University Graduate School of Medicine, Tohoku, Japan)*<br>**Supersulfides protect against SARS-CoV-2 infection by targeting viral thiol proteases and spike proteins** |
| 15:15 – 15:30 | OP I_04 **Emily Joyce**, Miao-Chong Joy Lin, Milena Hristova, Ying Wai Lam, and Albert van der Vliet *(Department of Pathology and Laboratory Medicine, University of Vermont, Burlington, VT, USA)*<br>**Redox-dependent regulation of DUOX1 NADPH oxidase Activity** | 15:15 – 15:30 | OP II_04 **Helen Hemmling**, Per M. Hägglund, and Clare L. Hawkins *(Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark)* |
| 15:30 – 15:45 | OP I_05 **Nuria Goya Iglesias**, Dolores Pérez-Sala, Ivan Gout, Bess Yu *(Center for Biological Research Margarita Salas, CIB, Spanish National Research Council, CSIC, Madrid, Spain)*<br>**Type III intermediate filaments as novel targets of the post-translational modification CoAlation** | | |


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| 15:45 – 16:00 | OP I_06 **Siqi Xu,** Rui Li, Yang Liao, Jiyong Bian, Ruiping Liu, Huijuan Liu *(Center for Water and Ecology, State Key Joint Laboratory of Environment Simulation and Pollution Control, School of Environment, Tsinghua University, Beijing, China)*<br>**Biodegradation of organic micropollutants by anoxic denitrification: roles of extracellular polymeric substance adsorption, enzyme catalysis, and reactive oxygen species oxidation** | | **Oxidative modifications in neutrophil extracellular traps and their role in modulating macrophage activity** |
| 16:00 – 16:15 | OP I_07 **Jialin Feng,** Donika Klenja-Skudrinja, Laureano de la Vega, and Albena Dinkova-Kostova *(School of Medicine, University of Dundee, Dundee, U.K.)*<br>**The anti-inflammatory cyclopentenone prostaglandin 15-deoxy-Δ12,14-PGJ2 (15d-PGJ2) inhibits transcription factor Bach1** | 15:30 – 15:45 | OP II_05 Dong He, Yequn Chen, Jiahui Ge, Jinwei Guo, Yingbi Zhou, and **Bin Liu** *(Cardiovascular Research Center, Shantou University Medical College, Shantou, China)*<br>**Short-term blockade of e-prostanoid 3 receptor curbs necroinflammation and protects against I/R- and doxorubicin-induced acute myocardial injury** |
| 16:15 – 16:30 | OP I_08 **Eduardo Arevalo-Nuñez de Arenas,** María Paz Cumia, Ilaria Sorrentino, Paula M. Soria, Roberto Sitia, Elena Jimenez-Curiel, Angie Katherine Molina-Oviedo, and Iria Medraño-Fernandez *(Redox Signaling in Regenerative Medicine Lab, Dept. of Neuroscience and Biomedical Science, Universidad Carlos III de Madrid, Madrid, Spain)*<br>**The cytosolic face of the ER: a hub for redox signaling** | 15:45 – 16:00 | OP II_06 **Meg Shieh**, Tetsuro Matsunaga, Qi Cui, Tony W. Pan, Anna Y. Chung, Akiyuki Nishimura, Minkyung Jung, Seiryo Ogata, Masanobu Morita, Jun Yoshitake, Motohiro Nishida, Takaaki Akaike, and Ming Xian *(Department of Chemistry, Brown University, Providence, RI, USA)*<br>**The persulfide and polysulfide puzzle: novel tools and methods to assemble the pieces** |
| | | 16:00 – 16:15 | OP II_07 Shuqi Xu, Christine Chuang, Clare Hawkins, **Per Hägglund**, and Michael Davies *(Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark)*<br>**Protein nitration in the vascular proteome** |
| | | 16:15 – 16:30 | OP II_08 **Rui Li**, Siqi Xu, Peng Deng, Jiyong Bian, Pengfei Xia, Yuting Wang, Ge Song, Wenwei Li, Yangping Liu, Ruiping Liu, Huijuan Liu, Jizhong Zhou, and Jiuhui Qu *(School of Environment, Tsinghua University, Beijing, China)*<br>**Unusual accumulation of reactive oxygen species during anoxic denitrification** |
| 16:30 – 18:30 | **Guided Poster Presentations I** *(with coffee)*<br>**Group A – Brain function and neurodegeneration**<br>*Chairs: Enrique Cadenas (Pharmacology and Pharmaceutical Sciences, USC Mann School of Pharmacy and Pharmaceutical Sciences, University of Southern California, Los Angeles, CA, USA), and Valeria Cordone (Environmental and Prevention Sciences, Ferrara University, Ferrara, Italy)*<br>---<br>• PP I_A01 **LIPID HOMEOSTASIS AND ASTROCYTE REACTIVITY IN APOE3 AND APOE4 ASTROCYTES** | | |


Erica Staurenghi, Irundika Dias, Lucrezia Floro, Gianni Vinay, Gabriella Testa, Serena Giannelli, Rebecca Cecci, Sara Rosano, Barbara Sottero, Valerio Leoni, **Giuseppe Poli,** Gabriella Leonarduzzi, and Paola Gamba *(Department of Clinical and Biological Sciences, University of Turin, Orbassano, Turin, Italy)*

- PP I_A02 **NITRITE ATTENUATES OXIDATIVE BURST IN BRAIN TISSUE FOLLOWING ISCHEMIA-REPERFUSION VIA MODULATION OF COMPLEX I-LINKED REVERSED ELECTRON TRANSFER**
  Cândida Dias, Cátia F. Lourenço, João Laranjinha, and **Ana Ledo** *(Faculty of Pharmacy and Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal)*
- PP I_A03 **BIOMIMETIC NANOPARTICLES FOR TARGETED CNS THERAPY: OVERCOMING THE BLOOD-BRAIN BARRIER TO REDUCE NEUROINFLAMMATION AND OXIDATIVE STRESS**
  **Chantalle Moulton,** Eugenia Romano, Anna Baroni, Sabina Pulone, Leonardo Lupacchini, Marta Morotti, Camilla Codazzi, Lucia Leone, Maria Vittoria Podda, and Ennio Tasciotti *(Human Longevity Program, IRCCS San Raffaele Rome, Rome, Italy)*
- PP I_A04 **AMBIENT PHYSIOLOGICAL OXYGEN DETERMINES ION CHANNEL ACTIVITIES: ROLE OF PHYSIOXIA IN UNDERSTANDING MEMORY LOSS ASSOCIATED WITH VASCULAR INSUFFICIENCY**
  Jennifer Cale, Sébastien Serres, Tracy D. Farr, and **Joern R. Steinert** *(School of Life Sciences, University of Nottingham, Nottingham, U.K.)*
- PP I_A05 **MODULATION OF VITAMIN C TRANSPORTER 2 (SVCT2) TRANSPORTER EXPRESSION AND ASCORBATE UPTAKE AS A STOPGAP FOR ALZHEIMERS DISEASE PROGRESSION**
  Camila Portugal, Renato Socodato[1], and **João B. Relvas** *(Glial Cell Biology Lab, Institute of Research and Innovation in Health and Department Biomedicine, Unit of Experimental Biology, Faculty of Medicine of the University of Porto, Porto, Portugal)*
- PP I_A06 **CHANGES IN MITOCHONDRIAL DYNAMICS IN ALZHEIMERS DISEASE TRANSGENIC MICE**
  **Koji Fukui,** Anna Seino, and Haruyasu Ito *(Molecular Cell Biology Laboratory, College of System Engineering and Sciences, Graduate School of Shibaura Institute of Technology, Saitama, Japan)*
- PP I_A07 **PEROXYNITRITE TRANSFORMS NERVE GROWTH FACTOR (NGF) TO A PRO-APOPTOTIC FACTOR FOR CORTICAL NEURONS: POSSIBLE IMPLICATIONS IN ALZHEIMERS DISEASE**
  **Santiago Garcimartín,** Nicolas Campolo, Mauricio Mastrogiovanni, Ari Zeida, Valentina Varela, Emiliano Trias, Luis Barbeito, Rosario Durán, Angeles Almeida, Rafael Radi, Maria Delgado M., and Silvina Bartesaghi *(Departamento de Bioquímica, and Centro de Investigaciones Biomédicas (CEINBIO), Facultad de Medicina, Universidad de la República, Montevideo, Uruguay)*
- PP I_A08 **OVEREXPRESSED FERROUS IRON IONS TRIGGERS NEUTROPHIL EXTRACELLULAR TRAP FORMATION AND CONTRIBUTES TO MULTIPLE SCLEROSIS**
  **Shenyu Yan** and Jiangang Shen *(The School of Chinese Medicine, The University of Hong Kong, Hong Kong, China)*
- PP I_A09 **RESTORING THE REDOX AND NOREPINEPHRINE HOMOEOSTASIS IN MOUSE BRAINS PROMOTES AN ANTIDEPRESSANT RESPONSE**


Qi Ding, **Xin Wang**, Ping Li, and Bo Tang *(College of Chemistry, Chemical Engineering and Materials Science, Institutes of Biomedical Sciences, Shandong Normal University, Jinan, China)*

- PP I_A10 **REGULATION OF DJ-1 BY COALATION IN PARKINSONS DISEASE**
  **Dejun Zhang**, Oksana Malanchuk, Charlie Brett, and Tammaryn Lashely *(University College London, London, U.K.)*
- PP I_A11 **MACROMOLECULAR THERAPY RESTORES MITOCHONDRIAL REDOX HOMEOSTASIS IN PARKINSON'S DISEASE**
  **Pengxi Deng,** Chen Li, Wenhua Zheng, and Hongchang Gao *(Institute of Metabonomics & Medical NMR, School of Pharmaceutical Sciences, Wenzhou Medical University, Wenzhou, China, and Faculty of Health Science, University of Macau, Taipa, Macau, China)*
- PP I_A12 **A53T A-SYNUCLEIN INDUCES OXIDATIVE PHOSPHORYLATION IMPAIRMENT AND FERROPTOSIS IN THE ANTERIOR CINGULATE CORTEX OF A PDD MODEL**
  **Lijun Zhao,** Xiaoxuan Guo, Yaohua Fan, Qizhang Wang, and Meiling Zhu *(Department of Neurology, Shenzhen Hospital of Integrated Traditional Chinese and Western Medicine, Shenzhen, China)*
- PP I_A13 **MULTIFACIAL ACTION OF SODIUM PYRUVATE AND OTHER THERAPEUTIC APPROACHES IN PD NEUROPROTECTION**
  **Alexander Nadeev,** Kristina A Kritskaya, Evgeniya I Fedotova, and Alexey V Berezhnov *(Institute of Cell Biophysics of the Russian Academy of Sciences, Federal Research Center, Pushchino Scientific Center for Biological Research of the Russian Academy of Sciences, Pushchino, Russia)*
- PP I_A14 **REDOX PROTEOME ALTERATIONS IN PARKINSONS DISEASE: INSIGHTS INTO THE ROLE OF REDOX-SIGNALLING AND MITOCHONDRIAL DYNAMICS AND FUNCTION**
  Daria Alexandrovna Kovalchuk, Sandra I. Anjo, Cristian V.A. Munteanu, Maria João Nunes, Margarida Castro-Caldas, Elsa Rodrigues, Bruno Manadas, Rita C. Guedes, Maria João Gama, and **Andreia N. Carvalho** *(Faculty of Pharmacy, Universidade de Lisboa, Lisbon, Portugal)*
- PP I_A15 **IN-SITU FLUORESCENCE IMAGING OF BRAIN DISEASE-ASSOCIATED BIOACTIVE MOLECULES**
  **Ping Li** *(College of Chemistry, Chemical Engineering and Materials Science, Shandong Normal University, Jinan, China, and College of Chemistry and Chemical Engineering, Northwest Normal University, Lanzhou, China)*
- PP I_A16 **MITOCHONDRIAL ABNORMALITIES AND OXINFLAMMATORY MECHANISMS IN RETT SYNDROME PRESYMPTOMATIC SYMPTOMATIC SWITCH**
  **Atefeh Moradi,** Matteo Muccini, Agnes Thalhammer, Alessandra Pecorelli, Andrea Vallese, Laura Gemmo, Valeria Cordone, Giuseppe Valacchi, and Gabriele Baj *(University of Trieste, Life Sciences, Trieste, Italy)*
- PP I_A17 **ER-MITOCHONDRIA ASSOCIATED MEMBRANES (MAMS) DYSFUNCTION IN RETT SYNDROME: INVESTIGATING CALCIUM SIGNALING ALTERATIONS AND POTENTIAL THERAPEUTIC STRATEGIES**
  **Sara Melija,** Alessandra Pecorelli, and Giuseppe Valacchi *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy)*
- PP I_A18 **AUTOPHAGY GONE AWRY BY OXIDATIVE STRESS ACTIVATED TAK1 SIGNALING UPON ISCHEMIA DRIVES THE ONSET OF POST-**


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| 16:30 – 18:30 | **STROKE COGNITIVE IMPAIRMENT**<br>Jiahui Fan, Xueyu Hou, Yan Zhou, Qiandai Hu, Yiyun Wang, **Yanling Yin,** and Xunming Ji *(Department of Neurobiology, School of Basic Medical Sciences, Capital Medical University, Beijing, China)*<br>• PP I_A19 **UNVEILING THE OXYGEN ASSAULT IN TRAUMATIC BRAIN INJURY: A PURSUIT FOR PRECISE BIOMARKERS**<br>**Ruchi Vyas,** Mohd Aleem, Vinod Sharma, and Murlidhar *(E-Yuva Centre, Centre for Converging Technologies, University of Rajasthan, Jaipur, India)*<br>**Group B – Environmental exposure**<br>*Chairs: Corinne M. Spickett (College of Health & Life Sciences, Aston University, Birmingham, UK), and Nikos Margaritelis (Department of Physical Education and Sports Science, Serres, Aristotle University of Thessaloniki, Thessaloniki, Greece)*<br>----------<br>• PP I_B01 **DISEASE BURDEN BY TRANSPORTATION NOISE AND REDOX PERSPECTIVES**<br>**Andreas Daiber** *(Center for Cardiology, Cardiology I, University Medical Center of the Johannes Gutenberg-University and German Center for Cardiovascular Research (DZHK), Partner Site Rhine-Main, Mainz, Germany)*<br>• PP I_B02 **INTERVENTIONS BY CARDIOVASCULAR DRUGS AGAINST AIRCRAFT NOISE-INDUCED CARDIOVASCULAR OXIDATIVE STRESS AND DAMAGE**<br>Marin Kuntić, Ivana Kuntić, Jiayin Zheng, Leonardo Nardi, Matthias Oelze**, Arijan Valar,** Dominika Mihaliková, Lea Strohm, Henning Ubbens, Qi Tang, Liyu Zhang, Guilherme Horta, Paul Stamm, Omar Hahad, Dilja Krueger-Burg, Huige Li, Sebastian Steven, Adrian Gericke, Michael J. Schmeisser, Thomas Münzel, and Andreas Daiber (*Department of Cardiology 1, University Medical Center of the Johannes Gutenberg-University, Mainz, Germany)*<br>• PP I_B03 **THE IMPACT OF AIRCRAFT NOISE EXPOSURE ON THE EFFICACY OF EMPAGLIFLOZIN THERAPY IN AN ANIMAL MODEL OF OBESITY**<br>**Dominika Mihalikova**, Lea Strohm, Alexander Czarnowski, Matthias Oelze, Henning Ubbens, Thomas Jansen, Thomas Münzel, Philipp Lurz, Andreas Daiber, and Paul Stamm *(Department of Cardiology, Cardiology I, University Medical Center Mainz, Mainz, Germany)*<br>• PP I_B04 **PHARMACOLOGICAL TREATMENT WITH NEUROACTIVE DRUGS AS A MITIGATION STRATEGY AGAINST AIRCRAFT NOISE-INDUCED CARDIOVASCULAR AND NEURONAL DAMAGE**<br>Ivana Kuntić, Marin Kuntić, **Jiayin Zheng**, Leonardo Nardi, Matthias Oelze, Arijan Valar, Dominika Mihaliková, Lea Strohm, Hans-Georg Buchholz, Nicole Bausbacher, Henning Ubbens, Qi Tang, Liyu Zhang, Guilherme Horta, Paul Stamm, Omar Hahad, Sebastian Steven, Huige Li, Mathias Schreckenberger, Dilja Krueger-Burg, Adrian Gericke, Michael Schmeisser, Thomas Münzel, and Andreas Daiber *(Laboratory of Molecular Cardiology, Department of Cardiology 1, University Medical Center of the Johannes Gutenberg-University, Mainz, Germany)*<br>• PP I_B05 **ACE-INHIBITORS AND STATINS HELP MITIGATE NEGATIVE CARDIOVASCULAR AND PULMONARY EFFECTS OF PARTICULATE MATTER IN A MOUSE EXPOSURE MODEL**<br>**Marin Kuntic**, Tristan Junglas, Ivana Kuntic, Arijan Valar, Jiayin Zheng, Matthias Oelze, Lea Strohm, Henning Ubbens, Omar Hahad, Maria |


Teresa Bayo Jimenez, Thomas Münzel, and Andreas Daiber *(Department for Cardiology 1, University Medical Center Mainz, Mainz, Germany)*

- PP I_B06 **IMPACT OF SHISHA SMOKING ON CARDIOVASCULAR HEALTH WITH FOCUS ON OXIDATIVE DAMAGE AND INFLAMMATORY REACTIONS**
  **Marin Kuntic**, Ivana Kuntic, Matthias Oelze, Yanislav Hrytseniuk, Lea Strohm, Henning Ubbens, Sanela Kalinovic, Ksenija Vujacic-Mirski, Maria Teresa Bayo Jimenez, Miroslava Kvandova, Thomas Münzel, and Andreas Daiber *(University Medical Center Mainz, Department for Cardiology 1, Molecular Cardiology, Mainz, Germany)*
- PP I_B07 **URBAN AIR POLLUTION INHALATION AGGRAVATES LUNG INJURY BY ACTIVATING INFLAMMATORY CELLS, SUSTAINING REDOX IMBALANCE, AND PROLONGING INFLAMMATION**
  Sofía Reynoso, Florencia Sarno, Agustina Freire, Lourdes Cáceres, Mariana Garcés, Laura Caltana, Manuela Martinefski, Timoteo Marchini, Valeria Tripodi, Pablo Evelson, and **Natalia Magnani** *(Universidad de Buenos Aires, Instituto de Bioquímica y Medicina Molecular Prof. Alberto Boveris (IBIMOL-UBA-CONICET), Buenos Aires, Argentina)*
- PP I_B08 **INVESTIGATION OF CHANGES IN ANTIOXIDANT CAPACITY IN RATS SERUM BY ULTRASOUND EXPOSURE**
  **Hiroshi Ichikawa**, Ryosuke Niwa, Nonoka Itoh, and Iwaki Akiyama *(Graduate School of Life and Medical Sciences, Doshisha University, Kyotanabe-City, Kyoto, Japan)*
- PP I_B09 **NANO AND MICROPLASTICS (NMPS) IMPAIR MEIOSIS AND ALTER THE REDOX STATE OF THE MOUSE FEMALE GERM CELL**
  Ramses Belda-Perez, Teresa Vergara, Andrea Bianchi, Stefano Falone, Carla Tatone, and **Giovanna Di Emidio** *(Dept. of Life, Health and Environmental Science, University of L'Aquila, L'Aquila, Italy)*
- PP I_B10 **ACUTE EFFECTS OF BISPHENOL A AND POLYETHYLENE MICROPLASTICS CO-EXPOSURE ON HEPATIC DETOXIFICATION AND OXIDATIVE STRESS IN A MURINE MODEL**
  **Margalida Monserrat-Mesquida**, Maria del Mar Ribas-Taberner, Maria Magdalena Quetglas-Llabrés, Llucia García-Moll, Manuel Jiménez-García, Joan Truyols, Miguel D. Ferrer, Silvia Tejada, Josep Mercader, Manel Miró, and Antoni Sureda *(Research Group on Community Nutrition & Oxidative Stress, University of the Balearic Islands-IUNICS, IdISBa & CIBEROBN, Palma de Mallorca, Balearic Islands, Spain)*
- PP I_B11 **MODULATION OF THE THIOL REDOX PROTEOME BY SUGARCANE ASH-DERIVED SILICA NANOPARTICLES: INSIGHTS INTO CHRONIC KIDNEY DISEASE OF UNKNOWN ETIOLOGY**
  Arthur D. Stem, Cole R. Michel, Peter S. Harris, Keegan L. Rogers, Matthew Gibb, Carlos A. Roncal-Jimenez, Richard Reisdorph, Richard J. Johnson, James R. Roede, Kristofer S. Fritz, and **Jared M. Brown** *(Department of Pharmaceutical Sciences, University of Colorado Anschutz Campus, Aurora, CO, USA)*
- PP I_B12 **EXPLORING THE IMPACT OF CHRONIC ARSENIC EXPOSURE ON INSULIN RESISTANCE IN MALE OFFSPRING RATS THROUGH FECAL MICROBIOTA TRANSPLANTATION**
  **Jinyao Chen**, Di Zhao, Xiaodong Ying, and Xiaoyan Yan *(School of Public Health, Shanxi Medical University, Taiyuan, China)*


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| 16:30 – 18:30 | • PP I_B13 **FECAL MICROBIOTA TRANSPLANTATION ALLEVIATES FEMALE OFFSPRINGS OVARIAN INFLAMMATION IN ARSENIC AND FLUORIDE CO-EXPOSED MICE THROUGH THE PI3KAKT NF-B PATHWAY**<br>**Yidi Li**, Dongcai Yue, Yannan Zhao, Penghui Liu, Meng Li, Jinyao Chen, Xiaoting Yan Linhua Fan, Guohua Song, Xiaolin Tian, and Xiaoyan Yan *(School of Public Health, Shanxi Medical University, Taiyuan, Shanxi, China)*<br>• PP I_B14 **REDOX REGULATION OF CUTANEOUS OLFACTORY RECEPTORS OR2AT4 AND OR6M1: WHEN THE SKIN SMELLS UV DAMAGE**<br>**John Ivarsson**, Sante Colella, Andrea Vallese, Francesca Ferrara, Alessandra Pecorelli, and Giuseppe Valacchi *(Food, Bioprocessing, and Nutrition Sciences Dept., Plants for Human Health Institute, and Animal Science Dept., Plants for Human Health Institute, North Carolina State University, Kannapolis, NC, USA)*<br>• PP I_B15 **SKIN BARRIER PROTEIN RESPONSES TO OXYSTEROL EXPOSURE: FROM DIET TO OUTDOOR STRESSORS**<br>**Alessandra Pecorelli**, Alice Casoni, Anna Guiotto, Marta Ruzza, Lorena Beltrami, Barbara Canepa, Fiorella Biasi, Giuseppe Poli, and Giuseppe Valacchi *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, and Plants for Human Health Institute, Department of Food, Bioprocessing and Nutrition Sciences, NC State University, Kannapolis, NC, USA)*<br>• PP I_B16 **EXPLORING THE ROLE OF PEROXIPORINS IN KERATINOCYTES DURING MECHANICAL-LIKE INJURY**<br>**Ilaria Sorrentino**, Angie Katherine Molina-Oviedo, Celina Salamanca-Gonzalez, Eduardo Arevalo-Nuñez de Arenas, and Iria Medraño-Fernandez *(Redox Signaling in Regenerative Medicine Lab, Dept. of Neuroscience and Biomedical science, Universidad Carlos III de Madrid, Leganés, Spain)*<br>• PP I_B17 **COMPARATIVE EFFECTS OF PERINATAL EXPOSURE TO A LOW DOSE OF GLYPHOSATE AND A GLYPHOSATE MIXTURE WITH DICAMBA AND 2,4-D ON OFFSPRINGS PLASMA AND HEART REDOX STATE**<br>**Paraskevi Maria Nechalioti**, Zoi Skaperda, Fotios Tekos, Periklis Vardakas, and Demetrios Kouretas *(Department of Biochemistry and Biotechnology, School of Health Sciences, University of Thessaly, Viopolis, Larissa, Greece)*<br>• PP I_B18 **HOXA1 ATTENUATES FLUORIDE-INDUCED SYNAPTIC DAMAGE VIA NF-B-MEDIATED SUPPRESSION OF FERROPTOSIS**<br>**Wenjin Qiu**, Xiaotong Yang, Shibin Song, Yimin Chen, Hua Yang, Peng Luo, and Liangzhao Chu *(Department of Neurosurgery, The Affiliated Hospital of Guizhou Medical University, Guizhou Medical University, Guiyang, China)*<br>**Group C – Redox biology of human diseases**<br>*Chairs: Cesar G. Fraga (Fisicoquimica, Facultad de Farmacia y Bioquimica, IBIMOL, Universidad de Buenos Aires, CONICET, Buenos Aires, Argentina),* and *Paraskevi Kritsiligkou (Department of Biochemistry, Cell and Systems Biology, The University of Liverpool, Liverpool, U.K.)*<br>---<br>• PP I_C01/FT I_01 **UNDERSTANDING THE ROLE OF *TRYPANOSOMA CRUZI* MITOCHONDRIAL PEROXIREDOXIN IN LIMITING PROTEIN AGGREGATION UNDER STRESS CONDITIONS** |


**Gabriela Specker**, Gabriela Libisch, Damián Estrada, Carlos Robello, Rafael Radi, Maria Laura Chiribao, and Lucía Piacenza *(Departamento de Bioquímica, Facultad de Medicina, Centro de Investigaciones Biomédicas (CEINBIO), Universidad de la República, and Laboratorio de interacciones hospedero patógeno/Unidad de Biología Molecular, Instituto Pasteur de Montevideo, Montevideo, Uruguay)*

- PP I_C02 **ROLE OF THE MITOCHONDRIAL SODIUMCALCIUM EXCHANGER NCLX IN FERROPTOSIS AFTER ISCHEMIC STROKE**
  **Susana Delgado-Martin**, Martin Hugo, Ana Belen Lopez-Rodriguez, Cristobal De Los Rios-Salgado, Po-Wah So, and Antonio Martinez-Ruiz *(Unidad de Investigación, Hospital Santa Cristina, Instituto de Investigación Sanitaria Princesa, IIS-IP, Madrid, Spain)*
- PP I_C03 **PEROXIREDOXIN-DRIVEN REACTIVATION OF VIRULENCE IN THE ATTENUATED HUMAN TRYPANOSOMA CRUZI C8C3LVIR STRAIN**
  **Damián Estrada**, Gabriela Specker, Jorge González, Rafael Radi and Lucía Piacenza *(Departamento de Bioquímica, Facultad de Medicina, and Centro de Investigaciones Biomédicas, CEINBIO, Facultad de Medicina, Universidad de la República, Montevideo, Uruguay)*
- PP I_C04 **LIVE MICROSCOPY OF MULTICELLULAR SPHEROIDS WITH MULTI-MODAL NEAR-INFRARED NANOPARTICLES REVEALS DIFFERENCES IN OXYGENATION GRADIENTS**
  **Angela C. Debruyne**, Irina A. Okkelman, Nina Heymans, Cláudio Pinheiro, An Hendrix, Max Nobis, Sergey M. Borisov, and Ruslan I. Dmitriev *(Tissue engineering and biomaterials, Ghent University, Ghent, Belgium)*
- PP I_C05 **DESIGN AND OPTIMISATION OF CARDIAC MODELS FOR THE STUDY OF SEPSIS THROUGH THE ANALYSIS OF HISTONE-ASSOCIATED CYTOTOXICITY**
  **Enric Dolz Andrés,** José Santiago Ibanez Cabellos, Irene Canovas-Cervera, Elena Nacher Sendra, Tamara Lapeña Luzón, Federico V. Pallardó, Imelda Ontoria Oviedo, and José Luis García-Giménez *(Faculty of Medicine and Dentistry, Department of Physiology, University of Valencia, Valencia, Spain)*
- PP I_C06 **INVESTIGATING LIPID PROFILES AND OXIDISED PHOSPHOLIPIDS IN SAMPLES FROM PATIENTS WITH CHRONIC VENOUS LEG ULCERS**
  **Jacob Cook**, Corinne Spickett, Irundika Dias, and Michael Wall *(College of Health and Life Sciences, Aston University, Birmingham, U.K.)*
- PP I_C07 **A COMPREHENSIVE LC-MSMS APPROACH FOR THE MONITORING OF OXIDATIVE STRESS MARKERS IN GINGIVAL SAMPLES**
  **Jan Dehner**, and Jan Vacek *(Department of Medical Chemistry and Biochemistry, Faculty of Medicine and Dentistry, Palacky University, Hnevotinska , Olomouc, Czech Republic)*
- PP I_C08 **CARBON MONOXIDE AMELIORATES THE PROGRESSION OF BLEOMYCIN-INDUCED PULMONARY FIBROSIS THROUGH MANIPULATING MACROPHAGE REPROGRAMMING**
  Chunyu Guo, Cheng Zhang, Zhengmei Xia, Bingdong Song, Weirong Hu, Yingying Cui, Shichen Zhang, and **Jun Fang** *(School of Public Health, Anhui Medical University, Hefei, China)*
- PP I_C09 **MECHANISMS OF HEME-DEPENDENT CELL DEATH**
  **Katarzyna E. Bednarczyk**, Kyla Mucciarone, Dániel Kucsera, Priyanka Rawat, Hannah Luviano, and Norbert Leitinger *(Department of Pharmacology, University of Virginia, Charlottesville, VA, USA)*


- PP I_C10 **PROTECTIVE EFFECTS OF PROCYANIDIN DIMERS ON TNFA-INDUCED INTESTINAL INFLAMMATION, OXIDATIVE STRESS, AND BARRIER DYSFUNCTION IN CACO-2 CELLS**
  **Wei Zhu**, and Patricia I. Oteiza *(Department of Nutrition, University of California, Davis, CA, USA)*
- PP I_C11 **SUPEROXIDE ANION-MEDIATED MITOCHONDRIAL DYSFUNCTION IN THE HIPPOCAMPUS OF DEPRESSED MICE REVEALED BY FLUORESCENT SENSING AND LABELING STRATEGIES BASED ON TANDEM ACTIVITY**
  **X. W. Li**, X. Wang, P. Li, and B. Tang *(College of Chemistry, Chemical Engineering and Materials Science, Key Laboratory of Molecular and Nano Probes, Ministry of Education, Collaborative Innovation Center of Functionalized Probes for Chemical Imaging in Universities of Shandong, Institutes of Biomedical Sciences, Shandong Normal University, Jinan, and Laoshan Laboratory, Aoshanwei Jimo, Qingdao, China)*
- PP I_C12 **SELENIUM METABOLISM AS A THERAPEUTIC TARGET FOR DIABETES AND CANCER**
  **Yoshiro Saito** *(Laboratory of Molecular Biology and Metabolism, Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai, Japan)*
- PP I_C13 **ALBUMIN CYS34 REVERSIBLE OXIDATION CORRELATES WITH CHANGE IN KIDNEY STIFFNESS POST-BARIATRIC SURGERY INDIVIDUALS WITH OBESITY AND CHRONIC KIDNEY DISEASE: ELASTO STUDY**
  **Zi Xiang Lim**, Horng Ruey Chua, Jorming Goh, Brian Keith Kennedy, Asim Shabbir, and Lee Ying Clara Ngoh *(Healthy Longevity Translational Research Program, Exercise Physiology and Biomarkers Lab, Department of Biochemistry, Yong Loo Lin School of Medicine, National University of Singapore, NUS, and Centre for Healthy Longevity, National University Health System, NUHS, Singapore, Republic of Singapore)*
- PP I_C14 **LAMININ-A2 CHAIN DEFICIENCY LEADS TO MULTI-ORGAN OXIDATIVE STRESS**
  **Susana G. Martins**, Mafalda Pita, Vanessa Ribeiro, Catarina Melo, Inês Fonseca, Sharadha Dayalan Naidu, Albena Dinkova-Kostova, Sólveig Thorsteinsdóttir, and Ana Rita Carlos *(Centre for Ecology, Evolution and Environmental Changes, CE3C, & CHANGE and Department of Animal Biology, Faculty of Sciences, University of Lisbon, Lisbon, Portugal)*
- PP I_C15 **TARGETING G6DPH FOR HELICOBACTER PYLORI ERADICATION VIA POLYSULFIDATION**
  Xiaonan Wang, and **Lizeng Gao** *(National Key Laboratory of Biomacromolecules, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China)*
- PP I_C16 **DIETARY $CO_2$ EMISSIONS ARE ASSOCIATED WITH OXIDATIVE STRESS AND INFLAMMATION IN ADULTS WITH METABOLIC SYNDROME**
  **Margalida Monserrat-Mesquida**, Cristina Bouzas, Silvia García, Maria Magdalena Quetglas-Llabrés, David Mateos, Lucía Ugarriza, Cristina Gómez, Antoni Sureda, and Josep A. Tur *(Research Group on Community Nutrition & Oxidative Stress, University of the Balearic Islands IUNICS, IdISBa & CIBEROBN, Palma de Mallorca, Spain)*
- PP I_C17 **ROLE OF GLYOXALASE 1 AND THE RECEPTOR FOR ADVANCED GLYCATION END PRODUCTS IN THE PATHOGENIC INFLAMMATION OF CYSTIC FIBROSIS**
  Marilena Pariano, Dominga Manfredelli, Marina Bellet, Lidia De Bari, **Tatiana Armeni**, Vincenzo Talesa, and Cinzia Antognelli *(Department*


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| 16:30 – 18:30 | *of Medicine and Surgery, University of Perugia, Perugia, Italy)*<br>• PP I_C18 **OXIDIZED TUBERCULOSIS ANTIGEN 85B ELEVATES T-CELL ACTIVATION IN A CONCENTRATION-DEPENDENT MANNER**<br>**Ramona Clemen,** Paul Schulan, Sander Bekeschus *(ZIK plasmatis, Leibniz Institute for Plasma Science and Technology, INP, Greifswald, Germany)*<br>**Group D – Redox signalling and molecular biology I**<br>*Chairs: Ana Denicola (University of the Republic, Montevideo, Uruguay), and Sophie Hendrix (Centre for Environmental Sciences, Hasselt University, Diepenbeek, Belgium)*<br>---<br>• PP I_D01 **ROLE OF THE MITOCHONDRIAL SODIUMCALCIUM EXCHANGER NCLX IN THE REDOX SIGNALING ACTIVATION OF THE NLRP3 INFLAMMASOME**<br>**Javier Prieto-Martinez**, Paloma Narros-Fernández, Cristobal de los Ríos-Salgado, Javier Egea and Antonio Martinez-Ruiz (*Unidad de Investigación, Hospital Santa Cristina, Instituto de Investigación Sanitaria Princesa, IIS-IP, Madrid, Spain)*<br>• PP I_D02 **NON-IONIZING RADIATION TREATMENT PROVOKES REDOX HOMEOSTASIS RESPONSES IN NEURON-LIKE SH-SY5Y CELLS**<br>**James H. Skoyles**, Lorena D. Sanchez, Lisette Sanchez-Aranguren, Andrew Ellis, and Irundika H.K. Dias *(Aston Medical School, Aston University, Birmingham, U.K.)*<br>• PP I_D03 **FINAL STAGES OF MITOCHONDRIAL RESPIRATORY CHAIN COMPLEX IV ASSEMBLY IN PHYSIOLOGICAL AND OXIDATIVE STRESS CONDITIONS**<br>**Ana Sierra-Magro**, Rene Ortega, and Antoni Barrientos *(Department of Neurology, University of Miami-Miller School of Medicine, Miami, FL, USA)*<br>• PP I_D04 **VARIABLE EFFECTS OF DIPHENYL DISELENIDE (PHSE)2 ON MITOCHONDRIAL PATHWAYS ACCORDING TO CELLULAR ENERGY STATUS IN BOVINE VASCULAR ENDOTHELIAL CELLS**<br>**Letícia Selinger Galant**, Laura Doblado, Rafael Radi, João Batista Teixeira da Rocha, Andreza Fabro de Bem, and Maria Monsalve *(Biochemistry PhD Program, Federal University of Santa Catarina, Florianópolis, SC, Brazil, and Instituto de Investigaciones Biomédicas Sols-Morreale, CSIC-UAM, Madrid, Spain)*<br>• PP I_D05 **THE EXCEPTIONAL RESISTANCE OF TRYPANOSOMA CRUZI CYTOSOLIC FE-SUPEROXIDE DISMUTASE TO PEROXYNITRITE-DEPENDENT INACTIVATION: THE KEY ROLE OF CYS83 AND TRYPANOTHIONE**<br>**Lucía Piacenza**, Mauricio Mastrogiovani, Maria Laura Chiribao, Luise Krauth-Siegel, and Rafael Radi *(Departamento de Bioquímica, Facultad de Medicina, Universidad de la República and Centro de Investigaciones Biomédicas, Universidad de la República, Montevideo, Uruguay)*<br>• PP I_D06/FT II_06 **ASSESSING THE IMPACT OF URIC ACID ON REDOX STATUS OF MAMMALIAN CELLS WITH AN INNOVATIVE ROGFP2-BASED BIOSENSOR IN A CARDIOVASCULAR DISEASE CONTEXT** |


**Mikaela P. Pinz**, Luiz F. Souza, Bianca Dempsey, Isadora Medeiros, Danielle F. Vileigas, Larissa R. Diniz, Natalia Oddone, Gerardo Ferrer-Sueta, Sayuri Miyamoto, Marcelo A. Comini, Paul K. Witting, and Flávia C. Meotti (*Department of Biochemistry, University of São Paulo, São Paulo, Brazil, and Charles Perkins Centre, School of Medical Sciences, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia)*

- PP I_D07 **HEPATIC METHANETHIOL OXIDASE ACTIVITY IS ATTENUATED IN RODENTS HELD UNDER COPPER DEFICIENCY BUT UNALTERED BY COPPER OVERLOAD**
  **Niklas Krafczyk**, Alina Löser, Kristina Lossow, Hans Zischka, Holger Steinbrenner, Anna Patricia Kipp, and Lars-Oliver Klotz *(Institute of Nutritional Sciences, Nutrigenomics Section, Friedrich Schiller University Jena, Jena, Germany)*
- PP I_D08 **THE ROLE OF NADPH OXIDASE NOX4 IN REGULATING AUTOPHAGY IN LIVER CANCER CELLS**
  **Paula Segalés**, Irene Peñuelas-Haro, Esther Bertran, Gemma Gonfaus-Ortiz, and Isabel Fabregat *(TGF-beta and Cancer Group, Oncobell Program, Bellvitge Biomedical Research Institute, IDIBELL, L'Hospitalet de Llobregat, Barcelona, Spain, and CIBEREHD, National Biomedical Research Institute on Liver and Gastrointestinal Diseases, Instituto de Salud Carlos III, Madrid, Spain)*
- PP I_D09 **ROLE OF THE NADPH OXIDASE NOX4 IN THE REGULATION OF ENDOPLASMIC RETICULUM (ER) STRESS IN LIVER TUMOR CELLS**
  **Gemma Gonfaus-Ortiz**, Irene Peñuelas-Haro, Paula Segalés, Ismael Sánchez-Vera, Joan Gil, Esther Bertran, and Isabel Fabregat *(TGF-beta and Cancer Group, Oncobell Program, Bellvitge Biomedical Research Institute, IDIBELL, L'Hospitalet de Llobregat, Barcelona, Spain, and CIBEREHD, National Biomedical Research Institute on Liver and Gastrointestinal Diseases, Instituto de Salud Carlos III, Madrid, Spain)*
- PP I_D10 **REDISULPHID: A STRUCTURAL BIOINFORMATIC SCREEN FOR IDENTIFYING DRUG-TARGETABLE REDOX-REGULATED DISULPHIDES**
  **Pierre Coleman**, Anna Laddach, Franca Fraternali, and Joseph R Burgoyne *(School of Cardiovascular and Metabolic Medicine & Sciences, King's College London, London, U.K.)*
- PP I_D11 **CYCLO-OCTA-SULFUR CONTRIBUTES TO ENERGY METABOLISM IN MITOCHONDRIA**
  **Tetsuro Matsunaga**, Uladzimir Barayeu, Masanobu Morita, Seiryo Ogata, Minkyung Jung, Tianli Zhang, Tsuyoshi Takata, Michito Yoshizawa, Hozumi Motohashi, and Takaaki Akaike *(Center for Integrated Control, Epidemiology and Molecular Pathophysiology of Infectious Diseases, Akita University, Akita, Japan)*
- PP I_D12 **A NOVEL PATHWAY FOR SUPERSULFIDES PRODUCTION CATALYZED BY NOX AND NOS**
  **Tsuyoshi Takata**, Uladzimir Barayeu, Tetsuro Matsunaga, Minkyung Jung, Seiryo Ogata, Masanobu Morita, Yukihiro Tsuchiya, Yasuo Watanabe, Hozumi Motohashi, Michito Yoshizawa, Hideki Sumimoto, and Takaaki Akaike *(Department of Environmental Medicine and Molecular Toxicology, Tohoku University Graduate School of Medicine, Sendai, Japan)*
- PP I_D13 **EPIGENETIC MECHANISM UNDERLYING REDOX-ASSOCIATED PROTECTION AGAINST ALCOHOL-INDUCED FATTY LIVER INJURY**
  Seong Hwi Hong, and **Ying Chen** *(Department of Environmental Health Sciences, Yale School of Public Health, Yale University, New Haven, CT, USA)*
- PP I_D14 **IMPACT OF NITRO-FATTY ACIDS ON INTRACELLULAR NITRIC OXIDE LEVEL IN VITRO**


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| 16:30 – 18:30 | **Zdenek Dostal**, Martina Zatloukalova, Barbara Makova, Daniel Chrenko, Jiri Pospisil, and Jan Vacek *(Department of Medical Chemistry and Biochemistry, Faculty of Medicine and Dentistry, Palacky University, Olomouc, Czech Republic)*<br>• PP I_D15 **PHYSIOLOGICAL FORMATION AND FUNCTION OF SUPERSULFIDES, CYCLO-OCTASULFUR (S 8 ) IN ADIPOCYTE**<br>**Zizai Shen**, Minkyung Jung, Uladzimir Barayeu, Tsuyoshi Takata, Tetsuro Matsunaga, Seiryo Ogata, Jun Yoshitake, Masanobu Morita, and Takaaki Akaike *(Department of Environmental Medicine and Molecular Toxicology, Tohoku University Graduate School of Medicine, Tohoku, Japan)*<br>• PP I_D16 **SULFIDE QUINONE OXIDOREDUCTASE (SQR)-MEDIATED CROSS-SPECIES MITOCHONDRIAL SULFUR RESPIRATION BY SUPERSULFIDES**<br>**Masanobu Morita**, Akira Nishimura, Tetsuro Matsunaga, Tomoaki Ida, Seiryo Ogata, Minkyung Jung, Uladzimir Barayeu, Motohiro Nishida, Hozumi Motohashi, and Takaaki Akaike *(Department of Environmental Medicine and Molecular Toxicology, Tohoku University Graduate School of Medicine, Sendai, Japan)*<br>• PP I_D17 **REGULATION OF DJ-1 BY COALATION IN PARKINSONS DISEASE**<br>**Dejun Zhang**, Oksana Malanchuk, Jiusheng Lin, Charlie Brett, Mark A. Wilson, Tammaryn Lashley, Sew-Yeu Peak-Chew, Mark Skehel, Gyorgy Szabadka, and Ivan Gout *(Structural and Molecular Biology, University College London, London, U.K.)*<br>• PP I_D18 **ROMO1 SHIELDS THE MITOCHONDRIAL CYSTEINOME FROM OXIDATIONS IN DISEASES AND AGING**<br>Fengli Xu, Haipeng Huang, Kun Peng, Chongshu Jian, Yanru Wang, Heping Cheng, and **Xianhua Wang** *(State Key Laboratory of Membrane Biology, Beijing Key Laboratory of Cardiometabolic Molecular Medicine, Peking-Tsinghua Center for Life Sciences, Institute of Molecular Medicine, College of Future Technology, Peking University, Beijing, China)*<br>• PP I_D19 **PROTEIN COALATION IS REGULATED BY AND INTEGRATED WITH GROWTH FACTOR SIGNALLING AND THE ANTIOXIDANT RESPONSE**<br>**Donagh Gribbon**, Arnau Garcíal Salmerón, Ivan Gout, and Rosemary O'Connor *(Cell Biology Laboratory, School of Biochemistry and Cell Biology, BioSciences Institute, University College Cork, Cork, Ireland)*<br>**Group E – Inflammation and immunity**<br>*Chairs: Noriko Noguchi (Doshisha University, Kyoto, Japan), and Verónica Miguel (Spanish National Centre for Cardiovascular Research, CNIC, Madrid, Spain)*<br>---<br>• PP I_E01/FT II_01 **MODULATION OF THE MACROPHAGE INFLAMMATORY RESPONSE BY CARBON DIOXIDE**<br>**Carolina Prolo**, Josefina Pereyra-Domenech, Mauricio Mastrogiovanni, María Noel Álvarez, and Rafael Radi *(Departamento de Bioquímica and Centro de Investigaciones Biomédicas, Facultad de Medicina, Universidad de la República, Montevideo, Uruguay)*<br>• PP I_E02/FT II_05 **INVESTIGATION OF SINGLET OXYGEN GENERATION BY NEUTROPHILS** |


**Rafaela O. Nascimento**, Fernanda M. Prado, Paolo Di Mascio, and Graziella E. Ronsein *(Department of Biochemistry, University of São Paulo, Sao Paulo, Brazil)*

- PP I_E03 **BI-DIRECTIONAL REGULATION OF PRO-INFLAMMATORY GENE EXPRESSION BY ELECTROPHILIC NATURAL PRODUCTS AND NRF2-ACTIVATING DRUGS**
  **Olga Oskolkova**, Alma Hodzic, Bernd Gesslbauer, Teresa Pirker, Rudolf Bauer, and Valery Bochkov *(Institute of Pharmaceutical Sciences, Division of Pharmaceutical Chemistry, University of Graz, Graz, Austria)*
- PP I_E04 **CHARACTERIZATION OF IMMUNOGENIC MDA-LIPIDPEROXIDATION EPITOPES ON HUMAN PLASMA EXTRACELLULAR VESICLES RECOGNIZED BY A HUMAN MONOCLONAL IGM-ANTIBODY**
  **Ulrike Resch**, Harald Wajant, Waltraud Schrottmaier, Taras Afonyushkin, Willibald Wonisch, Marcus Krueger, and Franz Tatzber *(Department of Vascular Biology and Thrombosis Research, Medical University of Vienna, Austria)*
- PP I_E05 **AN IMMUNE ASSAY FOR ANALYSIS OF MECHANISMS NEUTRALIZING DAMPS GENERATED BY PHOSPHOLIPID OXIDATION**
  Philipp Jokesch, Bernd Gesslbauer, Olga Oskolkova, Maria Fedorova, and **Valery Bochkov** *(Institute of Pharmaceutical Sciences, Division of Pharmaceutical Chemistry, University of Graz, Graz, Austria)*
- PP I_E06 **NEUROINFLAMMATION TRIGGERS A PATHOLOGICAL CASCADE INVOLVING TRICARBOXYLIC ACID CYCLE DYSFUNCTION, GLUTAMATE TOXICITY, AND NEURONAL DEATH**
  Annette Vaglio-Garro, Arthur Hosmann, Adelheid Weidinger, and **Andrey V Kozlov** *(Ludwig Boltzmann Institute for Traumatology, the Research Center in Cooperation with AUVA, Vienna, Austria)*
- PP I_E07 **ELUCIDATING THE MECHANISM OF MITOCHONDRIAL SUPEROXIDE PRODUCTION IN PRO-INFLAMMATORY MACROPHAGES**
  **Alva M. Casey**, Dylan G. Ryan, Hiran A. Prag, Suvagata Roy Chowdhury, Eloïse Marques, Keira Turner, Anja V. Gruszczyk, Ming Yang, Dane M. Wolf, Jan Lj. Miljkovic, Joyce Valadares, Patrick F. Chinnery, Richard C. Hartley, Christian Frezza, Julien Prudent, and Michael P. Murphy *(MRC Mitochondrial Biology Unit, Biomedical Campus, University of Cambridge, Cambridge, U.K.)*
- PP I_E08 **ENHANCED OXIDATIVE BURST IN NEUTROPHILS ALTERS PHENOTYPE ASSOCIATED WITH REDUCED MICROBIAL GROWTH**
  **Heather Chick**, Lydia Powell, Charlotte Morgan, Peter Olofsson-Sahl, Pontus Duner, Bohdan Golub, Andriy Mokhir, and Helen Griffiths *(Medical School, Swansea University, Swansea, Wales, U.K.)*
- PP I_E09 **ROLE OF ELECTROPHILES IN ORAL CAVITY REDOX HOMEOSTASIS**
  **Jan Vacek** *(Faculty of Medicine and Dentistry, Palacky University Olomouc, Olomouc, Czech Republic)*
- PP I_E10 **ANTI-INFLAMMATORY FLAVONOID-O-GLYCOSIDES IN HEAT-CLEARING TRADITIONAL CHINESE MEDICINE: BRIDGING ANCIENT WISDOM AND MODERN FREE RADICAL RESEARCH**
  Huong-Giang Le, and **Kuei-Hung Lai** *(Graduate Institute of Pharmacognosy; PhD Program in Clinical Drug Development of Herbal Medicine, College of Pharmacy, Taipei Medical University, Taipei, Taiwan)*
- PP I_E11 **HOCl FORMS N-CHLORAMINES IN CELL ENVELOPES OF BACTERIA AND IMMUNE CELLS**


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| | **Lisa Knoke**, Sara Abad Herrera, Sascha Heinrich, Frank Peeters, Natalie Lupilov, Julia Bandow, and Thomas Günther Pomorski *(Microbial Biochemistry, Ruhr University Bochum, Bochum, Germany)*<br>• PP I_E12 **GANODERMA LUCIDUM SPORE LEHUO (GLS) POWDER ATTENUATES EXPERIMENTAL AUTOIMMUNE ENCEPHALOMYELITIS BY MODULATING MICROGLIAL ACTIVATION AND POLARIZATION VIA NF-KB/STAT3 SIGNALING PATHWAY**<br>Lu Zhang, Jie Chen, Sauchu Yuen, Meiling Wu, and **Jiangang Shen** *(Department of Orthopedics, Shanghai Institute of Traumatology and Orthopedics, Ruijin Hospital, Shanghai Jiao Tong University School of Medicine, Shanghai, China)*<br>• PP I_E13 **ROLE OF HMGB1 IN INFLAMMATION FOLLOWING MYOCARDIAL INFARCTION**<br>**Martina Cebova**, Andrej Barta, and Olga Pechanova *(Centre of Experimental Medicine Slovak Academy of Sciences, Institute of Normal and Pathological Physiology, Bratislava, Slovak Republic)*<br>• PP I_E14 **THE RELATIONSHIP BETWEEN THE MAJOR URINARY METABOLITE OF PROSTAGLANDIN E2 AND HISTOLOGICAL SCORE IN PATIENTS WITH ULCERATIVE COLITIS**<br>**Osamu Handa**, Yasuto Hujimoto, Tatsushi Shiomi, and Akiko Shiotani *(Department of Gastroenterology and Hepatology, Kawasaki Medical School, Kurashiki, Japan)*<br>• PP I_E15 **HEME OXYGENASE-1 COUNTERACTS PROINFLAMMATORY ACTIVATION OF MICROGLIAL CELLS BY ACTING ON IRF5**<br>**Paola Mancini**, Anna L. Furfaro, Stefania Vernazza, Cristina d'Abramo, Luca Giliberto, and Mariapaola Nitti *(Department of Experimental Medicine, University of Genoa, Genoa, Italy)*<br>• PP I_E16 **SCUTELLARIA BARBATA IMPROVES ACUTE RESPIRATORY DISTRESS SYNDROME BY REDUCING NEUTROPHIL-MEDIATED OXIDATIVE STRESS**<br>Yu-Cheng Chen, Yao-Rong Lee, Yu-Chia Chang, Yi-Hsuan Wang, Shu-Yen Fang, Ching-Hsiung Line, Po-Jen Chen, and **Tsong-Long Hwang** *(Center for Drug Research and Development and Graduate Institute of Health Industry Technology, Chang Gung University of Science and Technology, Taoyuan, Taiwan)*<br>• PP I_E17 **ACTIVE COMPOUNDS OF RADIX REHMANNIAE AMELIORATE CFA-INDUCED INFLAMMATION BY ATTENUATING LOCALIZED IMFLAMMATORY RESPONSE AND NITRATIVE DAMAGE VIA TLR-MYD88-NFKB PATHWAY**<br>Jie Chen, Lu Zhang, **Jiangang Shen** *(School of Chinese Medicine, The University of Hong Kong, Hong Kong, China)*<br>• PP I_E18 **THE ANTI-INFLAMMATORY CYCLOPENTENONE PROSTAGLANDIN 15-DEOXY-Δ12,14-PGJ2 (15d-PGJ2) INHIBITS TRANSCRIPTION FACTOR BACH1**<br>**Jialin Feng**, Donika Klenja-Skudrinja, Laureano de la Vega, and Albena Dinkova-Kostova *(School of Medicine, University of Dundee, Dundee, U.K.)* |
| 16:30 – 18:30 | **Group F – Cancer**<br>*Chairs: Pablo Evelson (University of Buenos Aires, Buenos Aires, Argentina), and Mascia Benedusi (Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy)* |


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- PP I_F01/FT II_04 **ALTERING THE ANTICANCER ACTIVITY OF IRON(II) CLATHROCHELATES VIA AXIAL MODIFICATIONS**
  **Svitlana Chernii**, Roman Selin, Mimoza Mustafa, and Andriy Mokhir *(Department of Coordination Complexes N2, V.I. Vernadsky Institute of General and Inorganic Chemistry NASU, Kyiv, Ukraine)*
- PP I_F02 **OXIDATIVE ACTIVITY OF CANCER-SELECTIVE CARBON DOTS *IN VITRO* UNDER PHYSIOLOGICAL OXYGEN LEVELS**
  Yingru Zhou, **Francesco Calzaferri**, Fan Yang, Giovanni E. Mann, and Silvia Giordani *(School of Chemical Sciences and Life Science Institute, Dublin City University, Glasnevin Campus, Dublin, Ireland)*
- PP I_F03 **INDUCTION OF FERROPTOSIS IN UNDIFFERENTIATED HUMAN BONE MARROW STROMAL CELLS AND HUMAN OSTEOSARCOMA CELLS UNDERGO DIFFERENT PATHWAYS OPENING A WINDOW FOR NOVEL ANTICANCER TREATMENT**
  Yuliya D. Smirnova, Giulia Bottau, J. Catharina Duvigneau, Darja Marolt Presen, and **Andrey V. Kozlov** *(Ludwig Boltzmann Institute for Traumatology, The Research Center in Cooperation with AUVA, Vienna, Austria, and Austrian Cluster for Tissue Regeneration, Vienna, Austria)*
- PP I_F04 **UNRAVELING PROTEOTOXIC AND OXIDATIVE STRESS - DRIVEN ADAPTATIONS IN MULTIPLE MYELOMA**
  **Despoina D Gianniou**, Sentiljana Gumeni, Paraskevi Karousi, Eirini Gkogkou, Julie Courraud, Jérôme Moreaux, Nikolaos Thomaidis, Jerome Zoidakis, Guillaume Médard, Efstathios Kastritis, and Ioannis P. Trougakos *(Department of Cell Biology and Biophysics, Faculty of Biology, National and Kapodistrian University of Athens, Athens, Greece)*
- PP I_F05 **BREAST CANCER CELLS ABLATE XANTHINE OXIDOREDUCTASE (XOR) EXPRESSION TO ELIMINATE URIC ACID AND PRESERVE IRON STORES**
  Matthew Chapa, Rachel King, Bradley Web, and **Eric E. Kelley** *(West Virginia University, School of Medicine, Morgantown, WV, USA)*
- PP I_F06 **MITOCHONDRIAL FUNCTION IN COLORECTAL CANCER: IMPLICATIONS FOR THE DIAGNOSIS, SURGERY AND TREATMENT OF COLORECTAL CANCER**
  Rosa González-Martín, Patrizio del Rio, Olivia Moreno, Manuela Hidalgo, Laura Doblado, Victoria Siafaka, Eduardo Ferrero-Herrero, María Labalde-Martínez, and **María Monsalve** *(Sols-Morreale Biomedical Research Institute, IIBM, CSIC-UAM, Madrid, Spain)*
- PP I_F07 **TARGETING REDOX HOMEOSTASIS IN TRIPLE NEGATIVE BREAST CANCER CELLS BY MODULATION OF GLUTATHIONE AND THIOREDOXIN SYSTEMS**
  **Jolimar Hanna**, Meng-Er Huang, and Michel Lepoivre *(Institute of Chemistry of Natural Substances, CNRS UPR2301, Paris-Saclay University, France)*
- PP I_F08 **EFFECTS OF A HIGHLY HYDROPHILIC MITOCHONDRIA-TARGETED IRON CHELATOR**
  **Lucie J. Lamačová**, Stanislava Martínková, Jan Lj. Miljković, Michael P. Murphy, and Jan Trnka (*Department of Biochemistry, Cell and Molecular Biology, Third Faculty of Medicine, Charles University, Prague, Czech Republic)*


- PP I_F09 **THE DISCOVERY OF A NOVEL FERROPTOSIS-INDUCING BIOCHEMICAL INHIBITOR OF GLUTATHIONE PEROXIDASE 4 AND THIOREDOXIN REDUCTASE 1**
  **Madeleine S. Barrett**, Dorian M. Cheff, Min Shen, Qing Cheng, Matthew D. Hall, and Elias S.J. Arnér *(Division of Preclinical Innovation, National Center for Advancing Translational Sciences, National Institutes of Health, Bethesda, MD, USA, and Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden)*
- PP I_F10 **RNA TARGETING REDOX ACTIVE N-ALKYLAMINOFERROCENE BASED PRODRUG WITH HIGH ANTI-CANCER EFFICACY**
  **Marlies R. Körber**, Dina Attia, Sabrina Forveille, Oliver Kepp, Marco Munoz, Luis E. Munoz, and Andriy Mokhir *(Department of Chemistry and Pharmacy, Friedrich-AlexanderUniversity Erlangen-Nürnberg, Erlangen, Germany)*
- PP I_F11 **INHIBITION OF PEROXISOME IMPORT AS A NOVEL APPROACH TO SELECTIVELY KILL HYPOXIC TRIPLE NEGATIVE BREAST CANCER CELLS**
  Adam E. Frampton, and **Hannah Bolland** (*Section of Oncology, Department of Clinical and Experimental Medicine, Faculty of Health and Medical Sciences, University of Surrey, Guildford, Surrey, U.K.)*
- PP I_F12 **DISCOVERY OF THE REDOX REGULATORY MECHANISMS IN HORMONE-DEPENDENT CANCER**
  **Jacky Kieran Leung**, Theo Roumeliotis, Jyoti Choudhary, and Jörg Mansfeld *(Division of Cancer Biology, The Institute of Cancer Research, London, U.K.)*
- PP I_F13 **CADMIUM EXPOSURE AFFECTS THE PROGRESSION OF HUMAN METASTATIC MELANOMA BY INDUCING A DEREGULATION OF ANTIOXIDANT CELL RESPONSE**
  **Alice Casoni**, Giulia Trinchera, Franco Cervellati, Alessandra Pecorelli, Mascia Benedusi, and Giuseppe Valacchi *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy)*
- PP I_F14 **THIOREDOXIN INTERACTING PROTEIN REGULATES ADIPOSE TISSUE FUNCTIONALITY IN PROSTATE CANCER**
  **Belén García-Soler**, Daniela Pineda-Cevallos, Sergio Alcón-Rodríguez, Alba Moran-Álvarez, Sheila Fernández-Vega, Pablo Rodríguez-Fernández, Juan Carlos Mayo, and Rosa María Sainz RM *(Department of Morphology and Cell Biology, Redox Biology Unit, and School of Medicine, University Institute of Oncology of Asturias, IUOPA, University of Oviedo, and Health Research Institute of Asturias, ISPA, Oviedo, Asturias, Spain)*
- PP I_F15 **IRON-SULFUR NEET PROTEINS AND THEIR IMPLICATION IN CANCER**
  **Orane Benoît**, Fiona Cesarin, Julia Kurowski, Enora Festoc, Myriam Salameh, and Marie-Pierre Golinelli *(Institute of Chemistry of Natural Substance, CNRS UPR2301, Paris-Saclay University, Gif-sur-Yvette, France)*
- PP I_F16 **USP15 STABILIZES RSK1 AND PROMOTES TEMOZOLOMIDE RESISTANCE IN GLIOBLASTOMA**
  **Wenjin Qiu**, Ruting Wei, Shibin Song, Yimin Chen, Hua Yang, and Liangzhao Chu *(Department of Neurosurgery, Guizhou Medical University, Guiyang, China)*


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| *16:30 – 18:30* | • PP I_F17 **TREAMENT WITH DIHYDROARTEMISININ IMPROVES RESPONSE OF NORMOXIC AND HYPOXIC LUNG CANCER CELLS TO RADIATION THERAPY**<br>Sina Bader, Hannah Hexamer, Julia Wilmers, Verena Jendrossek, Diana Klein, and **Justine Rudner** *(Institute of Cell Biology (Cancer Research), University Hospital Essen, University of Duisburg-Essen, Essen, Germany)*<br>• PP I_F18 **EXPLORING REDOX DYNAMICS IN DISTINCT CELL POPULATIONS THROUGH A FACS-BASED APPROACH USING CANCER PATIENT-DERIVED ORGANOIDS AND COMPARTMENT-SPECIFIC GENETICALLY-ENCODED REDOX BIOSENSORS**<br>**Vanesa Cepas-López**, Federica Galvagno, Martina Miglio, Laura di Blasio, Leticia Prates Roma, Alberto Puliafito, and Luca Primo *(Candiolo Cancer Institute FPO IRCCS, Candiolo, Italy, and Department of Oncology. University of Turin, Turin, Italy)*<br>**Group G – Plant redox biology and redox chemistry:**<br>*Chairs: Daniela Caporossi (Department of Movement, Human and Health Sciences, University of Rome "Foro Italico", Rome, Italy), and Juan Sastre (Department of Physiology, Faculty of Pharmacy, University of Valencia, Valencia, Spain)*<br>---<br>• PP I_G01 **PUTATIVE REDOX PARTNERS AND PROPERTIES OF THE YEAST MITOCHONDRIAL THIOREDOXIN TRX3**<br>**James West**, Jude Cerniglia, Griffin Suppa, Thinh Huynh, and Shashank Pandey *(Biochemistry & Molecular Biology Program, The College of Wooster, Wooster, OH, USA)*<br>• PP I_G02 **HOMOFERMENTATIVE OXIDATION OF BOTANICAL MIXTURE BY LACTOBACILLUS PLANTARUM**<br>**Berta Beloviczky**, Brett Greer, Liza Oliinychenko, Alexandros Stratakos, and Katerina Theodoridou *(School of Biological Sciences, Queen`s University Belfast, Belfast, U.K.)*<br>• PP I_G03 **STRUCTURAL AND FUNCTIONAL SWITCHING OF REDOX PROTEIN IMPROVES STRESS TOLERANCE IN PLANT**<br>**Bhumi Nath Tripathi**, and Vijetna Singh *(Department of Biotechnology, Indira Gandhi National Tribal University, Amarkantak, India)*<br>• PP I_G04 **THE ROLE OF HYDROGEN PEROXIDE IN THE REGULATION OF STATE TRANSITIONS**<br>**Daria Vetoshkina**, Nikolai Balashov, and Maria Borisova-Mubarakshina *(Institute of Basic Biological Problems, Federal Research Center "Pushchino Scientific Center for Biological Research" of the Russian Academy of Sciences, Pushchino, Russia)*<br>• PP I_G05 **REGULATION OF THE SIZE OF THE LIGHT-HARVESTING COMPLEX OF PHOTOSYSTEM II IN ARABIDOPSIS THALIANA PLANTS WITHOUT α CARBONIC ANHYDRASE 2**<br>**Elena M. Nadeeva**, Natalia N. Rudenko, Lyudmila K. Ignatova, Daria V. Vetoshkina, and Boris N. Ivanov *(Institute of Basic Biological Problems, Federal Research Center "Pushchino Scientific Center for Biological Research" of the Russian Academy of Sciences, Pushchino, Russia)*<br>• PP I_G06 **GREEN CARBON DOTS DERIVED FROM BROCCOLI AND KNOTWEED EXHIBIT EXCELLENT FREE-SCAVENGING AND ANTI-INFLAMMATION ACTIVITIES** |


**Jun Wang**, Wanyi Fang, Xiangyu Zhou, Bo Sun, and Song Wu *(Biomedicine, Hubei University of Technology, Wuhan, China, and Physiology, University of Alberta, Edmonton, Canada)*

- PP I_G07 **OLIVE OIL SIDE-STREAM PRODUCTS AS NATURAL ANTIOXIDANTS: POTENTIAL FOR A CIRCULAR BIOECONOMY**
  **Zoi Skaperda**, Fotios Tekos, Paraskevi-Maria Nechalioti, Periklis Vardakas, Thomas Karampatzakis, Maria Gkasdrogka, Clémence Messant, Christos Gougoulias, and Demetrios Kouretas *(Department of Biochemistry and Biotechnology, School of Health Sciences, University of Thessaly, Viopolis, Larissa, Greece)*
- PP I_G08 **FLUORESCENCE OF ANTHOCYANINS AS A NEW MARKER OF OXIDATION**
  **Izabela Sadowska-Bartosz** *(Laboratory of Analytical Biochemistry, Institute of Food Technology and Nutrition, Faculty of Technology and Life Sciences, University of Rzeszów, Rzeszów, Poland)*
- PP I_G09 **GENERATION OF HYDROGEN PEROXIDE IN BEVERAGES AND COOKED VEGETABLES**
  **Izabela Sadowska-Bartosz**, Kacper Kut, Anna Tama, Małgorzata Rak, Oskar Sitarz, and Grzegorz Bartosz *(Laboratory of Analytical Biochemistry, Institute of Food Technology and Nutrition, Faculty of Technology and Life Sciences, University of Rzeszów, Rzeszów, Poland)*
- PP I_G10 **OXIDATIVE INACTIVATION OF HUMAN GLUCOSE-6-PHOSPHATE DEHYDROGENASE INDUCED BY PEROXYL RADICALS IS MODULATED BY GLUCOSE 6-PHOSPHATE AND NADP+**
  Juan Sebastián Reyes, Eduardo Fuentes-Lemus, Angélica Fierro, Karina Rivero-Rodríguez, Felipe Arenas, Michael J. Davies, and **Camilo López-Alarcón** *(Department of Physical Chemistry, Faculty of Chemistry and Pharmacy, Pontifical Catholic University of Chile, Santiago, Chile)*
- PP I_G11 **EFFECT OF MACROMOLECULAR CROWDING AND CO2 ON H2O2-INDUCED INACTIVATION OF GLYCERALDEHYDE-3-PHOSPHATE DEHYDROGENASE IN THE ABSENCE AND PRESENCE OF SUBSTRATES**
  Rebecca H. J. Bloemen, Kirsty Boms, Sara M. Jørgensen, Rafael Radi, Michael J. Davies, and **Eduardo Fuentes-Lemus** *(Department of Biomedical Sciences, Panum Institute, University of Copenhagen, Copenhagen, Denmark, and Departamento de Química Física, Facultad de Química y de Farmacia, Pontificia Universidad Católica de Chile, Santiago, Chile)*
- PP I_G12 **HEME-PROTEINS TYROSINE NITRATION MEDIATED BY THE PHOTOLYSIS OF 5-METHYL-1,4-DINITROIMIDAZOL (DNI)**
  Natalia Rios, Adrián Aicardo, Mauricio Mastrogiovanni, Lorena Herrera, Lucía Piacenza, Rafael Radi, and **José M. Souza** *(Department of Biochemistry, Faculty of Medicine, and Center for Biomedical Research, CEINBIO, Faculty of Medicine, University of the Republic, Montevideo, Uruguay)*
- PP I_G13 **DISULFIDE BONDS EXCHANGE CATALYZED BY SINGLET MOLECULAR OXYGEN OXIDATION**
  **Stella B. Jayme**, Mariana P. Massafera, Marisa H.G. Medeiros, Graziella E. Ronsein, and Paolo Di Mascio *(Departament of Biochemistry, Institute of Chemistry, University of São Paulo, São Paulo, Brazil)*
- PP I_G14 **LYSOSOMAL LIPID PEROXIDATION INDUCES FERROPTOSIS VIA LYSOSOMAL MEMBRANE PERMEABILIZATION**
  **Ken-ichi Yamada** *(Department of Molecular Pathobiology, Faculty of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan)*


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| | • PP I_G15 **ON-DEMAND IN SITU HYDROGEN PEROXIDE GENERATION USING RED LIGHT – A NEW TOOL FOR IN VITRO REDOX BIOLOGY** **Anna Tvrdoňová**, Marie Jakešová, and Eric Daniel Głowacki *(Central European Institute of Technology CEITEC, Brno University of Technology, Brno, Czech Republic)* |
| 18:30 – 19:30 | **Meet the Professors** *(BAH)* |
| 19:30 – 20:30 | **ECR Networking** *(BAH)* |
| 20:30 – 23:00 | **Welcome Reception with music and drinks** *(University of Galway, Sult)* |


<table>
<tr><td colspan="4">Day 2<br>Wednesday, June 4, 2025</td></tr>
<tr><td>08:00 – 09:00</td><td colspan="3">Sunrise Session - Careers beyond Gender (BAH)<br>Chairs: Lin L. Mantell (Department of Pharmaceutical Sciences, St. John's University, Queens, NY, USA) and Kasia Goljanek-Whysall (Discipline of Physiology, University of Galway, Galway, Ireland)<br>---<br>Panel members: Patricia Oteizia (SFFR International), Chang Chen (SFRR Asia), Maret G. Traber (Linus Pauling Institute, Oregon State University, Corvallis, OR, USA), Hozumi Motohashi (Tohoku University Graduate School of Medicine, Sendai, Japan), Daniela Caporossi (SFRR Europe), Juan Sastre (SFRR Europe), Ann Cuypers (Plant Oxygen Club), Angela Mastaloudis (Women in Nutraceuticals), Phounganh Phungdao (GlaxoSmithKline, Siena, Italy), and Albert van der Vliet (Department of Pathology and Laboratory Medicine, Larner College of Medicine, University of Vermont, Burlington, VT, USA)</td></tr>
<tr><td>09:00 – 09:30<br><br>09:30 – 10:00</td><td>Symposium III - Redox regulation in inflammation and immune response (BAH)<br>Chairs: Young-Joon Surh (College of Pharmacy, Seoul National University, Seoul, South Korea), and Giuseppe Valacchi (Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, Animal Science Department, Plants for Human Health Institute, NC State University, Kannapolis, NC, USA, and Department of Food and Nutrition, Kyung Hee University, Seoul, South Korea)<br>---<br>S III_01 Jesmond Dalli (William Harvey Research Institute, Barts and The London Faculty of Medicine and Dentistry, Queen Mary University of London)<br>Unlocking SPM pathways: Bridging inflammation resolution and tissue repair to human health<br>S III_02 Young-Joon Surh (College of Pharmacy, Seoul National University, Seoul, South Korea)<br>Role of NRF2 in resolution of inflammation</td><td>09:00 – 09:30<br><br>09:30 – 10:00<br><br>10:00 – 10:30</td><td>Symposium IV - Zinc outside the box: new insights into function and measurement (HBB)<br>Chairs: Sarah Chapple (King’s College London, London, U.K.), and Fan Yang (School of Cardiovascular and Metabolic Medicine & Sciences, King’s BHF Centre of Research Excellence, Faculty of Life Sciences & Medicine, King’s College London, London, U.K.)<br>---<br>S IV_01 Zhelong Xu (Department of Physiology &Pathophysiology, Department of Anesthesiology, and Department of Cardiology, General Hospital, Tianjin Medical University, Tianjin, China)<br>Roles of zinc transporters in cardiac pathophysiology<br>S IV_02 Patricia Oteiza (Departments of Nutrition and Environmental Toxicology, University of California, Davis, CA, USA)<br>Zinc, redox signalling and early development<br>S IV_03 George Firth, Philip J. Blower, and Cinzia Imberti (Department of Imaging Chemistry and Biology, School of Biomedical Engineering & Imaging Sciences, King’s College London, London, U.K.)<br>Whole-body imaging of zinc and other essential micronutrients with positron emission tomography</td></tr>
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| 10:00 – 10:30 | S III_03 **Hong Wang** *(Center for Metabolic Disease Research, Temple University School of Medicine, Philadelphia, PA, USA)*<br>**Metabolic reprogramming and redox regulation in monocytes differentiation and metabolic disorders** | | |
| 10:30 – 11:00 | Coffee / Poster viewing / Exhibition *(BAH, HBB)* | | |
| | **Symposium V** - **The key role of metabolism in fibrosis, inflammation and repair** *(BAH)*<br>*Chairs: Isabel Fabregat (Bellvitge Biomedical Research Institute, IDIBELL, Spain), and Santiago Lamas (Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Madrid, Spain)*<br>---------- | | **Symposium VI** - **Updates in plant redox biology** *(HBB)*<br>*Chairs: José Manuel Ugalde (Institute of Crop Science and Resource Conservation, University of Bonn, Bonn, Germany), and Sophie Hendrix (Centre for Environmental Sciences, Hasselt University, Diepenbeek, Belgium)*<br>---------- |
| 11:00 – 11:30 | S V_01 **Natalie J. Torok** *(Stanford University and VA Palo Alto, CA, USA)*<br>**Matrix properties and redox regulation in liver cancer** | 11:00 – 11:30 | S VI_01 Andrea Fuentes-Terrón, Isabel Manrique-Gil, Inmaculada Sánchez-Vicente, and **Oscar Lorenzo** *(Department of Plant Physiology, Institute for Agribiotechnology Research, CIALE, School of Biology, University of Salamanca, Salamanca, Spain)*<br>**Sensing the gastrotransmitter nitric oxide (NO) at the initial step of the N-degron pathway in plants** |
| 11:30 – 12:00 | S V_02 **Santiago Lamas** *(Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Madrid, Spain)*<br>**The role of fatty acid oxidation in kidney and liver fibrosis** | 11:30 – 12:00 | S VI_02 **Thomaz Stumpf Trenz,** Sophie Hendrix, Camila L. Delaix, Fernanda Valandro, José M. Ugalde, Zhi-Yong Wang, Andreas Meyer, and Marcia Margis-Pinheiro (*Department of Genetics, Federal University of Rio Grande do Sul, Porto Alegre, Brazil)*<br>**Glutathione peroxidases as redox sensors in plants** |
| 12:00 – 12:30 | SV_03 **Helena Cochemé** *(MRC Laboratory of Medical Sciences, LMS, and Institute of Clinical Sciences, Imperial College London, London, U.K).*<br>**Redox signalling in the regulation of metabolism and ageing** | 12:00 – 12:30 | S VI_03 **Avilien Dard**, Laetitia Bariat, Juline Auverlot, Alizée Weiss, Nathalie Picault, Christophe Riondet, Fréderic Pontvianne, Frank van Breusegem, and Jean-Philippe Reichheld *(Laboratoire Génome et Développement des Plantes-UMR5096, and CNRS/UPVD Perpignan, France, and Center for Plant Systems Biology, VIB, Ghent, Belgium)*<br>**Surfing the ROS wave: HDA6's journey through heat stress adaptation, from chromatin to cytosolic stress granules. Unveiling redox-regulation of protein phase separation** |
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| 12:30 – 13:00 | **SFRR-E Basic Science Award Lecture** (BAH):<br>*Chairs: Daniela Caporossi (Department of Movement, Human and Health Sciences, University of Rome "Foro Italico", Rome, Italy), and Giovanni Mann (School of Cardiovascular and Metabolic Medicine & Sciences, King's British Heart Foundation Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.)*<br>---<br>AL_05 **Juan Sastre** *(Department of Physiology, Faculty of Pharmacy, University of Valencia, Valencia, Spain)*<br>**Redox signaling in acute inflammation** | |
| 13:00 – 13:30 | Lunch break / Pick-up of lunch boxes | |
| 13:30 – 13:45<br>13:45 – 14:00<br>14:00 – 14:15<br>14:15 – 14:30 | **Lunch-time Seminar – From bench to bedside: translational research and clinical trials in redox research** *(sponsored by the University of Galway Institute of Clinical Trials) (BAH)*<br>*Chairs: Judy B. de Haan (Baker Heart and Diabetes Institute, Melbourne, Australia), and Motohiro Nishida (Kyushu University, Fukuoka, Japan)*<br>---<br>LS I_01 **Motohiro Nishida** *(School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan)*<br>**Supersulfide metabolism in cardiac stress resistance**<br>LS I_02 Judy Choi, Daniel Donner, Helen Kiriazis, Aascha Brown, Mehnaz Parvin, Parvin Yavari, James Vince, Arpeeta Sharma, and **Judy B. de Haan** *(Cardiovascular Inflammation and Redox Biology Laboratory, Baker Heart and Diabetes Institute, Melbourne, Australia)*<br>**Targeting the inflammatory gasdermin-D pore improves cardiac ischemia reperfusion injury in mice**<br>LS I_03 **Sharon Glynn** *(School of Medicine, University of Galway, Galway, Ireland)*<br>**Inducible nitric oxide synthase (iNOS) modulates tumour progression and immune responses leading to poor patient outcome in hormone receptor negative breast cancer**<br>LS I_04 **Andrew Smyth** *(University of Galway, Galway, Ireland)*<br>**Stroke Prevention: Findings from the INTERSTROKE Study** | Ollscoil na Gaillimhe<br>University of Galway |
| 14:30 – 15:00 | **SFRR-I Alberto Boveris Award Lecture** *(BAH)*<br>*Chairs: Patricia Oteiza (Department of Nutrition, University of California Davis, Davis, CA, USA), and Giuseppe Valacchi (Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, Animal Science Department, Plants for Human Health Institute, NC State University, Kannapolis, NC, USA, and Department of Food and Nutrition, Kyung Hee University, Seoul, South Korea)*<br>---<br>AL_06 **Enrique Cadenas** *(Pharmacology and Pharmaceutical Sciences, USC Mann School of Pharmacy and Pharmaceutical Sciences, University of Southern California, Los Angeles, CA, USA)*<br>**Metabolism and brain function** | |


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| | **Selected Oral Presentations III – Redox Biology of human diseases** *(BAH)*<br>*Chairs: Shinya Toyokuni (Nagoya University, Nagoya, Japan), and Maria Fedorova (Technical University Dresden, Dresden, Germany)*<br>---------- | | **Selected Oral Presentations IV - Vascular biology, brain function & neurodegeneration** *(HBB)*<br>*Chairs: Osamu Handa (Department of Gastroenterology and Hepatology, Kawasaki Medical School, Kurashiki, Japan), and Ivan Gout (Department of Structural and Molecular Biology, University College London, London, U.K.)*<br>---------- |
| 15:00 – 15:15 | OP III_01 **Irundika H.K. Dias**, Lorena Diaz-Sanchez, Tommaso Angelini, and Maura Marinozzi *(College of Life and Health Sciences, Aston University, Birmingham, West Midlands, U.K.)*<br>**Quantitative analysis and implications for sulfated oxysterols in APOE4 astrocytes** | 15:00 – 15:15 | OP IV_01 **Javier Marques**, Enrique Santamaria, Joaquin Fernandez-Irigoyen, Elena Ainzua, Adriana Cortes, Maria S Aymerich, Josune Orbe, and Guillermo Zalba *(Navarra Institute for Health Research, IdiSNA, and Department of Biochemistry and Genetics, University of Navarra, Pamplona, Spain)*<br>**NADPH oxidase 5 overexpression in endothelial cells influences the development of atherothrombotic stroke** |
| 15:15 – 15:30 | OP III_02 **Alessandra Pecorelli**, Anna Guiotto, Andrea Vallese, Sara Melija, Valeria Cordone, and Giuseppe Valacchi *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, and Plants for Human Health Institute, Department of Food, Bioprocessing and Nutrition Sciences, NC State University, Kannapolis, NC, USA)*<br>**Abnormal MAMs proteins can disrupt finely tuned signaling between ER and mitochondria in RTT brain** | 15:15 – 15:30 | OP IV_02 **Shuqi Xu**, Christine Y. Chuang, Clare L. Hawkins, Per Hägglund, and Michael J. Davies *(Department of Biomedical Sciences, Panum Institute, University of Copenhagen, Copenhagen, Denmark, and Department of Cardiovascular Medicine, The Affiliated Yongchuan Hospital of Chongqing Medical University, Chongqing, China)*<br>**Identification of oxidative modification in the vascular proteome** |
| 15:30 – 15:45 | OP III_03 Anna Guiotto, Valeria Cordone, Andrea Vallese, Joussef Hayek, Giuseppe Valacchi, and **Alessandra Pecorelli** *(Animal Science NC State University, Raleigh, NC, USA)*<br>**Evidence of compromised redox homeostasis and ferritinophagy in Rett syndrome** | 15:30 – 15:45 | OP IV_03 João S. Gonçalves, Beatriz Nunes, Sandra Anjo, Bruno Manadas, João Laranjinha, and **Cátia F. Lourenço** *(Center for Neuroscience and Cell Biology, and Faculty of Pharmacy, University of Coimbra, Coimbra, Portugal)*<br>**Inorganic nitrate improves neurovascular and cognitive function in type 2 diabetic rats** |
| 15:45 – 16:00 | OP III_04 **Taylor Covington**, Fotios Spyropoulos, Amanda Smythers, Jonathan Petrocelli, Markus Waldeck-Weiermair, Ruby Guo, Apabrita Das, Nils Burger, Haopeng Xiao, Shambhu Yadav, Tanoy Dutta, Edward Chouchani, and Thomas Michel *(Brigham and* | 15:45 – 16:00 | OP IV_04 **Meiling Wu**, Sulan Yu, Shenyu Yan, Lu Zhang, Shuang Chen, Dongyun Shi, Shanlin Liu, Yongping Fan, Xiang Lin, and Jiangang Shen *(School of Chinese Medicine, Li Ka Shing Faculty of Medicine, and State Key Laboratory of Pharmaceutical Biotechnology, The University of Hong Kong, Hong Kong, China)* |


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| | *Women's Hospital, Harvard Medical School, Boston, MA, USA)* | | **Targeting peroxynitrite-induced IL-2R nitration in tregs could be a promising therapeutic strategy for multiple sclerosis treatment** |
| | **Effects of in utero oxidative stress and redox regulation in cardiac development** | 16:00 – 16:15 | OP IV_05 **Xiaolu Liu**, Huifang Shang, Qianqian Wei, Xiaoli Yao, Ling Lian, Jingxia Dang, Rui Jia, Zhiying Wu, Hongfu Li, Qi Niu, Xi Cheng, Zhangyu Zou, Sheng Chen, Min Zhang, Yang Liu, Yaling Liu, Qi Liu, Xusheng Huang, Hongfen Wang, Honglin Feng, Shuyu Wang, and Dongsheng Fan *(Peking University Third Hospital, Beijing, China)* |
| 16:00 – 16:15 | OP III_05 **Felix Schmidt**, Vivek Venkataramani, and Axel Methner *(Institute for Molecular Medicine, University Medical Center of the Johannes Gutenberg-University, Mainz, Germany)* | | **Effectiveness of tetramethylpyrazine nitrone in amyotrophic lateral sclerosis: a randomized clinical trial** |
| | **Resistance against ferroptosis rewires the mitochondrial respiratory chain by upregulating ATPIF1 and ATPIF1 protects against ferroptosis** | 16:15 – 16:30 | OP IV_06 Jeongmin Park, Yeonsoo Joe, and **Hun Teag Chung** *(College of Korean Medicine, Daegu Haany University, Gyeongsan, Republic of Korea)* |
| 16:15 – 16:30 | OP III_06 **Jiangang Shen** *(School of Chinese Medicine, State Key Laboratory of Pharmaceutical Biotechnology, The University of Hong Kong, Hong Kong, Hong Kong SAR, China)* | | **Therapeutic potential of CO in neurodegeneration: insights into PERK, calcineurin, and MLKL modulation** |
| | **Myeloperoxidase-derived hypochlorous acid (HOCl) play dual roles in mediating brain damages and modulating neurogenesis in cerebral ischemia-reperfusion injury** | 16:30 – 16:45 | OP IV_07 **Andrea Vallese**, Sara Melija, Joussef Hayek, Alessandra Pecorelli, and Giuseppe Valacchi *(Dept. of Bioscience and Agro-Food and Environmental Technology, University of Teramo, Teramo, Italy, and Dept. of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy)* |
| 16:30 – 16:45 | OP III_07 **Ramona Clemen**, Paul Schulan, and Sander Bekeschus *(ZIK plasmatis, Leibniz Institute for Plasma Science and Technology (INP), Greifswald, Germany)* | | **Deregulation of the Nrf2 redox-sensitive pathway in Autism Spectrum Disorders** |
| | **Oxidized lysates as anticancer vaccine in experimental melanoma models** | 16:45 – 17:00 | OP IV_08 Yujing Tian, Luwei Kang, Ngoc Ha, Juan Deng, and **Danqian Liu** *(Center for Excellence in Brain Science and Intelligence Technology, Chinese Academy of Sciences, Shanghai, China)* |
| 16:45 – 17:00 | OP III_08 **Susana Cadenas** *(Centro de Biología Molecular Severo Ochoa, CSIC/UAM, Madrid, Spain)* | | **Hydrogen peroxide in midbrain sleep neurons regulates sleep homeostasis** |
| | **Therapeutic potential of the Nrf2/are pathway in doxorubicin-induced cardiotoxicity** | | |
| | **Flash Talks I** *(BAH)*<br>*Chairs: Giuseppe Valacchi (Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, Animal Science Department,* | | **Flash Talks II** *(HBB)*<br>*Chairs: Albert van der Vliet (Department of Pathology and Laboratory Medicine, Larner College of Medicine, University of Vermont, Burlington,* |


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| | *Plants for Human Health Institute, NC State University, Kannapolis, NC, USA, and Department of Food and Nutrition, Kyung Hee University, Seoul, South Korea), and Florian Gruber (Dermatology, Medical University of Vienna, and CDL SKINMAGINE, Vienna, Austria)* | | *VT, USA), and Andreas Daiber (Cardiology I, University Medical Center, Johannes Gutenberg University, Mainz, Germany)* |
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| 17:00 – 17:05 | FT I_01 **Gabriela Specker**, Gabriela Libisch, Damián Estrada, Carlos Robello, Rafael Radi, Maria Laura Chiribao, and Lucía Piacenza *(Departamento de Bioquímica, Facultad de Medicina, and Centro de Investigaciones Biomédicas, CEINBIO, Universidad de la República, Montevideo, Uruguay)* **Understanding the role of Trypanosoma Cruzi mitochondrial peroxiredoxin in limiting protein aggregation under stress conditions** | 17:00 – 17:05 | FT II_01 **Carolina Prolo**, Josefina Pereyra-Domenech, Mauricio Mastrogiovanni, María Noel Álvarez, and Rafael Radi *(Departamento de Bioquímica, and Centro de Investigaciones Biomédicas, Facultad de Medicina, Universidad de la República, Montevideo, Uruguay)* **Modulation of the macrophage inflammatory response by carbon dioxide** |
| 17:05 – 17:10 | FT I_02 **Hannah L. H. Green**, Anthony Rasetta, Philip Eaton, Manpreet Kaur, and Olena Rudyk *(School of Cardiovascular and Metabolic Medicine & Sciences, King's College London, London, U.K.)* **Investigating the role of protein kinase a regulatory subunit PKARIα in pulmonary hypertension** | 17:05 – 17:10 | FT II_02 **Radosveta Gencheva**, Giovanni Chiappetta, Zhiyu Hao, Qing Cheng, Joelle Vinh, Arne Lindqvist, and Elias Arnér *(Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden)* **Kinetics of thioredoxin reductase 1 derivatization and associated cancer cell death by the small molecule inhibitor TRi-1** |
| 17:10 – 17:15 | FT I_03 **Jake McAuliffe**, Richard Lalor, Sheila Donnelly, Krystyna Cwiklinski, and John Pius Dalton *(Department of Zoology, School of Natural Science, University of Galway, Galway, Ireland)* **Pleiotropic effects of Fasciola hepatica secreted Peroxiredoxin** | 17:10 – 17:15 | FT II_03 **Jose C Casas-Martinez**, Qin Xia, Penglin Li, Antonio Miranda-Vizuete, Emma McDermott, Peter Dockery, Afshin Samali, and Brian McDonagh *(Discipline of Physiology, School of Pharmacy and Medical Sciences, and Apoptosis Research Centre, Galway, Ireland)* **PRDX-2 modulates mitochondria-ER communication and UPR signalling in response to exercise** |
| 17:15 – 17:20 | FT I_04 **Roberto Meneses-Valdés**, Carlos Henríquez-Olguín, Samantha Gallero, Jonvá Hentze, Enrique Jaimovich, and Thomas E. Jensen *(The August Krogh Section for Molecular Physiology, Department of* | 17:15 – 17:20 | FT II_04 **Svitlana Chernii**, Roman Selin, Mimoza Mustafa, and Andriy Mokhir *(Department of Coordination Complexes N2, V.I. Vernadsky Institute of General and Inorganic Chemistry NASU, Kyiv, Ukraine)* **Altering the anticancer activity of iron(II) clathrochelates via axial modifications** |
| | | 17:20 – 17:25 | FT II_05 **Rafaela O. Nascimento**, Fernanda M. Prado, Paolo Di Mascio, and Graziella E. Ronsein *(Department of Biochemistry, University of São Paulo, Sao Paulo, Brazil)* **Investigation of singlet oxygen generation by neutrophils** |
| | | 17:25 – 17:30 | FT II_06 **Mikaela P. Pinz**, Luiz F. Souza, Bianca Dempsey, Isadora Medeiros, Danielle F. Vileigas, Larissa R. Diniz, Natalia Oddone, Gerardo |


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| 17:20 – 17:25<br><br>17:25 – 17:30 | *Nutrition, Exercise and Sports, University of Copenhagen, Copenhagen, Denmark)*<br>**Chemogenetic manipulation of mitochondrial hydrogen peroxide reveals distinct muscle-wasting phenotypes in skeletal muscle**<br>FT I_05 **Marie Jakešová**, Jiří Ehlich, Sabine Erschen, Leia Nemeskeri, Verena Handl, Rainer Schindl, Linda Waldherr, and Eric D. Głowacki *(Central European Institute of Technology, Brno University of Technology, Brno, Czech Republic)*<br>**A multichannel electrochemical platform for controlled hydrogen peroxide modulation in redox biology**<br>FT I_06 **Eva Martín-Prieto**, Leonardo A. Catalano-Iniesta, Escarlata Fernández-Puente, and Jesús Palomero *(Department of Physiology and Pharmacology, University of Salamanca, Salamanca, Spain, Institute of Neurosciences of Castilla y León, INCYL, Salamanca, Spain, and Institute of Biomedical Research of Salamanca, IBSAL, Salamanca, Spain)*<br>**Induced oxidative eustress stimulates glucose uptake in c2c12 myotubes and skeletal muscle fibres** | | Ferrer- Sueta, Sayuri Miyamoto, Marcelo A. Comini, Paul K. Witting, and Flávia C. Meotti *(Department of Biochemistry, University of São Paulo, São Paulo, Brazil, and Charles Perkins Centre, School of Medical Sciences, Faculty of Medicine and Health, The University of Sydney, Sydney, Australia)*<br>**Assessing the impact of uric acid on redox status of mammalian cells with an innovative roGFP2-based biosensor in a cardiovascular disease context** |
| 17:30 – 19:00 | **Guided Poster Presentations II** *(with coffee)*<br>**Group A – Redox signalling and molecular biology II**<br>*Chairs: Antonio Martinez-Ruiz (Instituto de Investigación Sanitaria Princesa, Madrid, Spain), and Montserrat Vega (MELIS-Oxidative Stress and Cell Cycle Group, Universitat Pompeu Fabra, Barcelona, Spain)*<br>---<br>• PP II_A01/FT I_03 **PLEIOTROPIC EFFECTS OF FASCIOLA HEPATICA SECRETED PEROXIREDOXIN**<br>**Jake McAuliffe**, Richard Lalor, Sheila Donnelly, Krystyna Cwiklinski, and John Pius Dalton *(Department of Zoology, School of Natural Science, University of Galway, Galway, Ireland)*<br>• PP II_A02/FT II_02 **KINETICS OF THIOREDOXIN REDUCTASE 1 DERIVATIZATION AND ASSOCIATED CANCER CELL DEATH BY THE SMALL MOLECULE INHIBITOR TRI-1** | | |


**Radosveta Gencheva**, Giovanni Chiappetta, Zhiyu Hao, Qing Cheng, Joelle Vinh, Arne Lindqvist, and Elias Arnér *(Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden)*

- PP II_A03/FT I_06 **INDUCED OXIDATIVE EUSTRESS STIMULATES GLUCOSE UPTAKE IN C2C12 MYOTUBES AND SKELETAL MUSCLE FIBRES**
  **Eva Martín-Prieto**, Leonardo A. Catalano-Iniesta, Escarlata Fernández-Puente, and Jesús Palomero *(Department of Physiology and Pharmacology, University of Salamanca, Salamanca, Spain, Institute of Neurosciences of Castilla y León, INCYL, Salamanca, Spain, and Institute of Biomedical Research of Salamanca, IBSAL, Salamanca, Spain)*
- PP II_A04 **WHAT DOES OXIDATIVE STRESS LOOK LIKE? VISUALIZING EXPRESSION OF REDOX-ASSOCIATED PROTEINS WITH IMAGING-BASED SPATIAL PROTEOMICS**
  **Alina Sigaeva**, Christian Gnann, and Emma Lundberg *(Division of Cellular and Clinical Proteomics, Department of Protein Science, KTH Royal Institute of Technology / SciLifeLab, Stockholm, Sweden)*
- PP II_A05 **THE ROLE OF SINGLET MOLECULAR OXYGEN IN PHOTOOXIDATIVE STRESS PROMOTED BY 6-THIOGUANINE AND UVA RADIATION IN KERATINOCYTES**
  **André L. Lopes**, Hellen P. Valerio, Mariana P. Massafera, Fernanda M. Prado, Marisa H.G. Medeiros, Graziella E. Ronsein, and Paolo Di Mascio *(Departamento de Bioquímica, Instituto de Química, Universidade de São Paulo, São Paulo, Brazil)*
- PP II_A06 **SPATIAL LOCALIZATION AND SCAFFOLD PROTEINS ENABLE SENSITIVE AND SITE-SPECIFIC HYDROGEN PEROXIDE SIGNALING THROUGH PEROXIREDOXIN-MEDIATED REDOX RELAYS**
  Matthew Griffith, Adérito Araújo, Rui Travasso, and **Armindo Salvador** *(Centre for Neuroscience Cell Biology, CNC, Centre for Innovative Biomedicine and Biotechnology, CiBB, Coimbra Chemistry Center, Institute of Molecular Sciences, CQC-IMS, and Institute for Interdisciplinary Research, University of Coimbra, Coimbra, Portugal)*
- PP II_A07 **MECHANISM OF GLUTATHIONYLATION OF THE ACTIVE SITE THIOLS OF PEROXIREDOXIN 2**
  Alexander V. Peskin[1], Flavia C. Meotti[2], Nicholas J. Magon[1], Luiz F. de Souza[2], **Armindo Salvador,** and Christine C. Winterbourn *(Centre for Neuroscience Cell Biology, CNC, Centre for Innovative Biomedicine and Biotechnology, CiBB, Coimbra Chemistry Center, Institute of Molecular Sciences, CQC-IMS, and Institute for Interdisciplinary Research, University of Coimbra, Coimbra, Portugal)*
- PP II_A08 **ROLE OF TXNL1 GENE IN REDOX BUFFERING CAPACITY IN HEK-293T CELLS**
  **Attila Kolonics**, Beáta Biri-Kovács, Mahendravarman Mohanraj, Attila Andor, Zsuzsanna Anna Pató, and Elias S.J. Arnér *(Department of Selenoprotein Research and National Tumor Biology Laboratory, NationalInstitute of Oncology, Budapest, Hungary, and Division of Biochemistry, Department of Medical Biochemistry and Biophysics(MBB),Karolinska Institutet, Stockholm, Sweden)*
- PP II_A09 **S-NITROSATION OF CAMKIIA MATTERS, A NEW MECHANISM MEDIATING LEARNING AND MEMORY**
  **Boyu Chu**, Xinhua Qiao, and Chang Chen *(Key Laboratory of Biomacromolecules, CAS, National Laboratory of Biomacromolecules, CAS Center for Excellence in Biomacromolecules, Institute of Biophysics, Chinese Academy of Sciences, Beijing, China)*
- PP II_A10 **GLYOXALASE 2 AND INFLAMMATION: ITS ROLE IN CHRONIC DISEASES**


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| 17:30 – 19:00 | **Brenda Romaldi**, Andrea Scirè, Lidia De Bari, Cinzia Antognelli, and Tatiana Armeni *(Department of Specialist Clinical and Odontostomatological Sciences, Polytechnic University of the Marche, Ancona, Italy)*<br>• PP II_A11 **EXPLORING THE DIFFERENTIAL IMPACT OF PEROXISOME- AND MITOCHONDRIA-DERIVED HYDROGEN PEROXIDE ON ORGANELLE MOTILITY**<br>**Celien Lismont**, Mohamed A.F. Hussein, Hongli Li, Rhuizi Chai, and Marc Fransen *(Department of Cellular and Molecular Medicine, KU Leuven, Leuven, Belgium)*<br>• PP II_A12 **OXIFLY: SEX-SPECIFIC REDOX PROTEOMIC NETWORKS IN AGEING DROSOPHILA**<br>**Claudia Lennicke**, Jonathan Petrocelli, Nils Burger, George Young, Edward Chouchani, and Helena Cochemé *(MRC Laboratory of Medical Sciences, LMS, and Imperial College London, London, U.K.)*<br>• PP II_A13 **REDOX RESILIENCE IN HYPOXIA-TOLERANT *TENEBRIO MOLITOR* LARVAE**<br>Enzo O. Silva, Israel Mesack C. Rodrigues, and **Daniel C. Moreira** *(Faculty of Health Sciences, and Faculty of Medicine, University of Brasilia, Brazil)*<br>• PP II_A14 **MOLECULAR MECHANISM OF IRON-INDEPENDENT LIPID PEROXIDATION INDUCED NOVEL CELL DEATH, LIPOXYTOSIS**<br>**Hirotaka Imai**, Kahori Tsuruta, Tomoko Koumura, Shu Yasuda, and Masaki Matsuoka *(Department of Health Sciences, School of Pharmaceutical Sciences, Kitasato University, Tokyo, Japan)*<br>**Group B – Muscle homeostasis and exercise**<br>*Chairs: Malcolm J. Jackson (Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Sciences, ILCaMS, Faculty of Health & Life Sciences University of Liverpool, Liverpool, U.K.), and Santiago Lamas (Centro de Biología Molecular Severo Ochoa, CSIC-UAM, Madrid, Spain)*<br>---<br>• PP II_B01/FT II_03 **PRDX-2 MODULATES MITOCHONDRIA-ER COMMUNICATION AND UPR SIGNALLING IN RESPONSE TO EXERCISE**<br>**Jose C Casas-Martinez**, Qin Xia, Penglin Li, Antonio Miranda-Vizuete, Emma McDermott, Peter Dockery, Afshin Samali, and Brian McDonagh *(Discipline of Physiology, School of Pharmacy and Medical Sciences, and Apoptosis Research Centre, Galway, Ireland)*<br>• PP II_B02/FT I_04 **CHEMOGENETIC MANIPULATION OF MITOCHONDRIAL HYDROGEN PEROXIDE REVEALS DISTINCT MUSCLE-WASTING PHENOTYPES IN SKELETAL MUSCLE**<br>**Roberto Meneses-Valdés**, Carlos Henríquez-Olguín, Samantha Gallero, Jonvá Hentze, Enrique Jaimovich, and Thomas E. Jensen *(The August Krogh Section for Molecular Physiology, Department of Nutrition, Exercise and Sports, University of Copenhagen, Copenhagen, Denmark)*<br>• PP II_B03 **EXERCISE RESCUES MITOCHONDRIAL FUNCTIONS IN SKELETAL MUSCLE AND REVERSES THE AGE-ASSOCIATED FUNCTIONAL DECLINE IN HUMANS AND MICE**<br>Esther García-Domínguez, Cristina García-Domínguez, Julio Domenech-Fernandez, Jesús Vázquez, Enrique Calvo, José Luis Cabrera-Alarcón, Antonio L. Serrano, Pura Muñoz-Cánoves, Gloria Olaso-González, José Antonio Enríquez, and **María Carmen Gómez-Cabrera** *(Freshage* |


*Research Group, Department of Physiology, Faculty of Medicine, University of Valencia, Fundación Investigación Hospital Clínico Universitario/INCLIVA, Valencia, Spain, and CIBER de Fragilidad y Envejecimiento Saludable, CIBERFES, ISCIII, Madrid, Spain)*

- PP II_B04 **IMPACT OF EXERCISE-INDUCED REDOX SIGNALLING ON EXTRACELLULAR VESICLES DYNAMICS IN MUSCLE CELLS**
  **Laura Sireno**, Cristina Fantini, and Daniela Caporossi *(Unit of Biology and Human Genetic, Department of Movement, Human and Health Sciences, University of Rome "Foro Italico", Rome, Italy)*
- PP II_B05 **MIR-199 REGULATES NEUROMUSCULAR HOMEOSTASIS DURING AGEING**
  **Sannicandro J. Anthony**, José C. Casas-Martinez, Lara Rodriguez Outeirino, Natalie Pollock, Brian McDonagh, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, University of Galway, Galway, Ireland)*
- PP II_B06 **CHANGES IN MYO-MIR LEVELS AND OXIDATION IN MUSCLE DURING AGEING**
  **Turki Sitr M. Aljuaid**, Brian McDonagh, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, College of Medicine, Nursing and Health Sciences and Galway RNA Research Cluster, University of Galway, Galway, Ireland)*
- PP II_B07 **OXI-MIR-133 AS A MEDIATOR OF MUSCLE LOSS IN CANCER CACHEXIA**
  **Maria Borja-Gonzalez**, Raúl González-Ojeda, Lucrezia Bertazzoli, Anthony J. Sannicandro, Turki Aljuaid, Brian McDonagh, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, College of Medicine, Nursing and Health Sciences and Galway RNA Research Cluster, University of Galway, Galway, Ireland)*
- PP II_B08 **OXI-MIR-133 AS A MEDIATOR OF MUSCLE LOSS IN AGEING**
  Maria Borja-Gonzalez, Raúl González-Ojeda, **Lucrezia Bertazzoli**, Anthony J. Sannicandro, Turki Aljuaid, Brian McDonagh, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, College of Medicine, Nursing and Health Sciences and Galway RNA Research Cluster, University of Galway, Galway, Ireland)*
- PP II_B09 **MIR-199A REGULATES MUSCLE HOMEOSTASIS IN SOD1 MOUSE MODEL OF AMYOTROPHIC LATERAL SCLEROSIS**
  **Lara Rodríguez Outeiriño**, Raúl Gonzalez-Ojeda, Anthony J. Sannicandro, María Borja-Gonzalez, and Katarzyna Goljanek-Whysall *(Physiology Department, School of Medicine, College of Medicine, Nursing and Health Sciences, University of Galway, Galway, Ireland)*
- PP II_B10 **USING ULTRASOUND IRRADIATION PREVENTS DISUSE MUSCLE ATROPHY IN RATS WITH A HINDLIMB TAPING MODEL**
  **Niwa Ryosuke**, Ichikawa Hiroshi, Minamiyama Yukiko, and Akiyama Iwaki *(Faculty of Life and Medical Sciences Doshisha, Kyoto, Japan)*
- PP II_B11 **AQUAPORINS FACILITATE $H_2O_2$ TRANSPORT AT SKELETAL MUSCLE MEMBRANES OF THE NEUROMUSCULAR JUNCTION**
  **Maisey P. Peterson**, Malcolm J. Jackson, Richard Barrett-Jolley, Robert A. Heaton, and Caroline A. Staunton *(University of Liverpool, Institute of Life Course and Medical Sciences, Liverpool, U.K.)*
- PP II_B12 **EVALUATION OF DIETARY MODIFICATION AND EXERCISE AGAINST HIGH-FAT DIET-INDUCED HEPATIC OXIDATIVE STRESS AND INFLAMMATION**
  **Manuel Jiménez-García**, Maria del Mar Ribas, Xavier Capó, Maria Magdalena Quetglas-Llabrés, David Moranta, and Silvia Tejada *(University of the Balearic Islands, Palma, Spain, and Health Research Institute of the Balearic Islands, IdISBa, Palma, Spain)*


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| 17:30 – 19:00 | • PP II_B13 **SKELETAL MUSCLE OXIDATIVE STRESS AND INFLAMMATION INDUCED BY HIGH-FAT DIET: PROTECTIVE EFFECTS OF EXERCISE AND DIET MODIFICATION**<br>Manuel Jiménez-García, Maria del Mar Ribas, Xavier Capó, Margalida Montserrat-Mesquida, David Moranta, and Silvia Tejada *(University of the Balearic Islands, Palma, Spain, and Health Research Institute of the Balearic Islands, IdISBa, Palma, Spain)*<br>• PP II_B14 **NRF2/AMPK AXIS IS REQUIRED FOR REDOX-MEDIATED PHASE RESETTING OF MUSCULOSKELETAL CLOCKS UPON ACUTE MECHANICAL LOADING**<br>Ufuk Ersoy, Cal Sibel, Phaedra Winstanley-Zarach, Tayfun Dikmen, Blandine Poulet, **Vanja Pekovic-Vaughan** *(University of Liverpool, Institute of Life Course & Medical Sciences, Department of Musculoskeletal and Ageing Science, Liverpool, U.K.)*<br>• PP II_B15 **GALWAY RNA RESEARCH CLUSTER, UNIVERSITY OF GALWAY, IRELAND**<br>**Elizabeth Hay**, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, College of Medicine, Nursing and Health Sciences and Galway RNA Research Cluster, University of Galway, Ireland)*<br>**Group C – Redox signaling and molecular biology III**<br>*Chairs: Young-Joon Surh (College of Pharmacy, Seoul National University, Seoul, South Korea), and Vanja Pekovic-Vaughan (Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Sciences, ILCaMS, University of Liverpool, Liverpool, U.K.)*<br>----------<br>• PP II_C01 **THE TWO FACES OF COENZYME A IN CELLULAR BIOLOGY**<br>**Charlie Brett**, and Ivan Gout *(Department of Structural and Molecular Biology, University College London, London, U.K.)*<br>• PP II_C02 **PEROXIREDOXIN DEPENDENT MITOCHONDRIAL REMODELLING MEDIATE LIFESPAN EXTENSION INDUCED BY INTERMITTENT FASTING IN *CAENORHABDITIS ELEGANS***<br>**Penglin Li**, Jose C. Casas-Martinez, Qin Xia, Yating Zheng, Katarzyna Goljanek-Whysall, and Brian McDonagh *(Discipline of Physiology, School of Pharmacy and Health Sciences, University of Galway, Galway, Ireland)*<br>• PP II_C03 **THE CHRONIC INTERMITTENT FASTING IMPROVES GLUCOSE CONTROL AND ADIPOSE TISSUE REDOX HOMEOSTASIS IN A SEX-DEPENDENT MANNER: THE POSSIBLE ROLE OF FNDC5/IRISIN**<br>**Iordan Miranda**, Lucas Carvalho, Marcelo Neves, Verônica Muller, Cinthia Breves, Christina Takiya, Iala Bertasso, Patrícia Lisboa, Verônica Pinto, Rodrigo Fortunato, and Carlos Chagas Filho *(Biophysics Institute, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil)*<br>• PP II_C04 **FASTING-INDUCED HYDROGEN PEROXIDE SIGNALLING INCREASES THE HEPATOCYTE RESILIENCE**<br>Izak Patrik Miller, Patrik Prša, Dušan Šuput, and **Irina Milisav** *(Institute of Pathophysiology, Faculty of Medicine, and Laboratory of Oxidative Stress Research, Faculty of Health Sciences, University of Ljubljana, Ljubljana, Slovenia)*<br>• PP II_C05 **DIETARY CONJUGATED LINOLEIC ACID MODULATES REDOX HOMEOSTASIS AND MITOCHONDRIAL DISFUNCTION IN THE BRAIN CORTEX OF THE AMYOTROPHIC LATERAL SCLEROSIS MOUSE MODEL** |


Cincotti Giorgia, Caruso Martina, Bacchetti Francesca, Sabata Pierno, Milanese Marco, Ferramosca Alessandra, and **Bergamo Paolo** *(National Research Council, Institute of Biosciences and Bioresources, CNR-IBBR, UO Naples, Naples, Italy)*

- PP II_C06 **NRF2 ISOFORM 2 IS EXPRESSED IN HUMAN CELLS AND UNDERGOES RAPID PROTEASOMAL DEGRADATION**
  Zuzanna Urban-Wójciuk, Alicja Dziadosz-Brzezińska, Sara Kusinski, Maciej Cieśla and **Alicja Sznarkowska** *(International Centre for Cancer Vaccine Science, University of Gdansk, Gdansk, Poland)*
- PP II_C07 **CDDO-EA AS AN ANTIOXIDANT AND ANTI-INFLAMMATORY TREATMENT FOR MITIGATING ACQUIRED EPILEPSY**
  **Yara Sheeni**, Prince Kumar Singh, and Tawfeeq Shekh-Ahmad *(The Institute for Drug Research, The School of Pharmacy, Faculty of Medicine, The Hebrew University of Jerusalem, Jerusalem, Israel)*
- PP II_C08 **PERK-NRF2-IRG1 PATHWAY PROTECTS AGAINST OXIDATIVE STRESS AND FERROPTOSIS IN HEPATIC IRI**
  Jeongmin Park, Hun Taeg Chung, and **Yeonsoo Joe** *(College of Korean Medicine, Daegu Haany University, Gyeongsan, Republic of Korea)*
- PP II_C09 **MONITORING GOLGI REDOX POTENTIAL IN CHO CELLS UNDER HYPOXIA: A COMPARISON OF TRANSIENT AND STABLE ROGFP1-IL EXPRESSION**
  **Stfanny W. Meza**, Martha A. Contreras, Octavio T. Ramírez, and Laura A. Palomares *(Department of Molecular Medicine and Bioprocesses, Institute of Biotechnology-UNAM, Cuernavaca, Mexico)*
- PP II_C10 **ENHANCED CYTOTOXIC EFFECT AND RADICAL-SCAVENGING ACTIVITY OF A PLANAR CATECHIN ANALOG CONJUGATED WITH TEPRENONE**
  **Hiromu Ito**, Yoshimi Shoji, Wakana Shimizu, Megumi Ueno, Ken-ichiro Matsumoto, Kiyoshi Fukuhara, and Ikuo Nakanish *(Quantum RedOx Chemistry Team, Quantum Life Spin Group, Institute for Quantum Life Science, iQLS, National Institutes for Quantum Science and Technology, QST, Chiba, Japan)*
- PP II_C11 **THE POTENTIAL TREATMENT AGENT OF ACUTE LUNG INJURY: A NEW NATURAL MYELOPEROXIDASE (MPO) INHIBITOR, DAURISOLINE**
  Zhengyi Wang, and **Chaorui Guo** *(Clinical Pharmacology Research Center, School of Basic Medicine and Clinical Pharmacy, China Pharmaceutical University, Nanjing, China)*
- PP II_C12 **SYNTHETIC ANTIOXIDANT COMPOUNDS AND NO DONORS AS ANTI-INFLAMMATORY AND HYPOLIPIDEMIC AGENTS**.
  **Eleni A. Rekka**, Panagiotis Theodosis-Nobelos, and Paraskevi Tziona *(Department of Medicinal Chemistry, School of Pharmacy, Aristotle University of Thessaloniki, Thessaloniki, Greece)*
- PP II_C13 **SUPEROXIDE ANION-MEDIATED MITOCHONDRIAL DYSFUNCTION IN THE HIPPOCAMPUS OF DEPRESSED MICE REVEALED BY FLUORESCENT SENSING AND LABELING STRATEGIES BASED ON TANDEM CATIVITY**
  **X. W. Li,** X. Wang, P. Li, B. Tang *(College of Chemistry, Chemical Engineering and Materials Science, Key Laboratory of Molecular and Nano Probes, Ministry of Education, Collaborative Innovation Center of Functionalized Probes for Chemical Imaging in Universities of Shandong, Institutes of Biomedical Sciences, Shandong Normal University, Jinan, China)*


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| 17:30 – 19:00 | • PP II_C14 **REDOX-DEPENDENT REGULATION OF DUOX1 NADPH OXIDASE ACTIVITY**<br>**Emily Joyce**, Miao-Chong Joy Lin, Milena Hristova, Ying Wai Lam, and Albert van der Vliet *(Department of Pathology and Laboratory Medicine, University of Vermont, Burlington, VT, USA)*<br>**Group D – Development & Aging, and COVID-19**<br>*Chairs: Andrew Bulmer (Griffith University, Queensland, Australia), and Ana Ledo (Faculty of Pharmacy and Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal)*<br>----------<br>• PP II_D01 **BCL-XL OVEREXPRESSION IN T CELLS ENHANCES MITOCHONDRIAL METABOLISM AND PROTECTS AGAINST OXIDATIVE DAMAGE**<br>**Cristina Mas-Bargues**, Aurora Román-Domínguez, Jorge Sanz-Ros, Javier Huete-Acevedo, Ana María Cuervo, Consuelo Borrás, and José Viña *(Department of Physiology, Faculty of Medicine, University of Valencia, Valencia, Spain)*<br>• PP II_D02 **DIAMOND BASED QUANTUM SENSING FOR FREE RADICAL DETECTION IN AGEING AND BIOREACTOR-GROWN YEAST CELLS WITH SUBCELLULAR RESOLUTION**<br>**Andrea Bošković**, Harsh Jain, Claudia Reyes, Felipe Perona, Paola Martucci, Marina Volkova, Jana Radaković, and Romana Schirhagl *(Biomaterials and Biomedical Technology, University Medical Center Groningen, Groningen, The Netherlands)*<br>• PP II_D03 **MESSENGER RNA OXIDATION, PROTEIN AGGREGATION AND QUALITY CONTROL MECHANISMS THAT TARGET OXIDISED RNAS IN AGING**<br>**Ahmet Tuncay**, Amarendranath Sorry, Harvey Johnston, Wen Kin Lim, Kranthi Yadav, David Oxley, and Ian John McGough *(Signalling, Babraham Institute, Cambridge, U.K)*<br>• PP II_D04 **SEXUAL DIMORPHISM IN REDOX HOMEOSTASIS OF VISCERAL ADIPOSE TISSUE IN AGED MICES**<br>**Lucas Monteiro de Carvalho**, Iordan Emanuel Ferreira Miranda, Marcelo Barbosa Neves, Gabriel Souza de Jesus, Caio do Nascimento Lima, Julianna Dias Zeidler, Andrea Claudia Freitas Ferreira, Aina Eiras Domingos, Fernando de Azevedo Cruz Seara, and Rodrigo Soares Fortunato *(Carlos Chagas Filho Institute of Biophysics, Federal University of Rio de Janeiro, Rio de Janeiro, Brazil)*<br>• PP II_D05 **INDUCTION OF OXIDATIVE STRESS TOLERANCE BY ULTRASOUND IRRADIATION EXTENDS THE LIFESPAN OF C. ELEGANS**<br>Babakarkhil Ezatullah, Ichikawa Hiroshi, **Niwa Ryosuke**, Minamiyama Yukiko, and Akiyama Iwaki *(Faculty of Life and Medical Sciences, Doshisha, Kyoto, Japan)*<br>• PP II_D06 **INCREASE OF AGE-RELATED LIPOFUSCIN INDUCES CONTRACTILE DYSFUNCTION BY REDUCING AUTOPHAGY IN CARDIOMYOCYTES**<br>**Sophia Walter**, Steffen P. Häseli, Patrica Baumgarten, Stefanie Deubel, Tobias Jung, Annika Höhn, Christiane Ott and Tilman Grune *(Molecular Toxicology, German Institute of Human Nutrition Potsdam-Rehbruecke, DIfE, Nuthetal, Germany, TraceAge-DFG Research Unit on Interactions of Essential Trace Elements in Healthy and Diseased Elderly, Potsdam-Berlin-Jena-Wuppertal, Germany, and DZHK, German Center for Cardiovascular Research, Berlin, Germany)* |


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| 17:30 – 19:00 | • PP II_D07 **MITOCHONDRIAL SUPEROXIDE REGULATES NUCLEAR ENVELOPE INTEGRITY AND AGING VIA REDOX-MEDIATED LIPID METABOLISM**<br>**Ye Tian** *(Institute of Genetics and Developmental Biology, Beijing, China)*<br>• PP II_D08 **MECHANISM OF OXIDANTS-MEDIATED SENESCENCE INDUCTION VIA MITOCHONDRIAL DAMAGE IN LUNG FIBROBLASTS**<br>**Md Imam Faizan**, Gagandeep Kaur, Sadiya Bi Shaikh, and Irfan Rahman *(Department of Environmental Medicine, University of Rochester Medical Center, Rochester, NY, USA)*<br>• PP II_D09 **IMMUNE CELL DYNAMICS IN AGING ISLETS AND THEIR IMPACT ON GLUCOSE METABOLISM**<br>Julia Jelleschitz, Sophie Heider, Richard Kehm, Patricia Baumgarten, Christiane Ott, Vanessa Schnell, Tilman Grune, and **Annika Höhn** *(Department of Molecular Toxicology, German Institute of Human Nutrition Potsdam-Rehbruecke (DIfE), Nuthetal, Germany)*<br>• PP II_D10 **THE POTENTIAL PROTECTIVE EFFECTS OF NICOTINE IN ATTENUATING INFLAMMATORY LUNG INJURY: IMPLICATIONS FOR COVID-19 AND BEYOND**<br>**Mosi Lin**, Sidorela Zefi, Siddhant Shukla, Warren Zhao, Charles R. Ashby Jr., and Lin Mantell *(Department of Pharmaceutical Sciences, St. John's University, Queens, NY, USA)*<br>• PP II_D11 **SOUND THE ALARM: UNDERSTANDING HMGB1 IN COVID-19 AND INFLAMMATORY LUNG INJURY**<br>**Sidorela Zefi**, **Mosi Lin**, George Melissinos, Warren Zhao, **Aliya Lewis**, Charles R. Ashby Jr. , and Lin Mantell *(Department of Pharmaceutical Sciences, College of Pharmacy and Health Sciences, St. John's University, Queens, NY, USA, and Feinstein Institute for Medical Research, Northwell Health, Manhasset, NY, USA)*<br>• PP II_D12 **MIR-1, MIR-16, MIR-181, AND MIR-378-3P PREDICT LONG-TERM FRAILTY IN COVID-19 PATIENTS**<br>**Daniel Mc Gonigle**, and Katarzyna Goljanek-Whysall *(Department of Physiology, School of Medicine, University of Galway, Galway, Ireland)*<br>**Group E – Vascular biology & vascular disease**<br>*Chairs: Henry J. Forman (University of Southern California, Los Angeles, CA, USA), and Natalia Magnani (Instituto de Bioquímica y Medicina Molecular Prof. Alberto Boveris, IBIMOL-UBA-CONICET, Universidad de Buenos Aires, Buenos Aires, Argentina)*<br>---<br>• PP II_E01/FT I_02 **INVESTIGATING THE ROLE OF PROTEIN KINASE A REGULATORY SUBUNIT PKARIA IN PULMONARY HYPERTENSION**<br>**Hannah L. H. Green**, Anthony Rasetta, Philip Eaton, Manpreet Kaur, and Olena Rudyk *(School of Cardiovascular and Metabolic Medicine & Sciences, King's College London, London, U.K.)*<br>• PP II_E02 **DOXORUBICIN-INDUCED CARDIOTOXICITY – GENDER DIFFERENCES AND A PROTECTIVE ROLE OF AMPK**<br>**Alexander Czarnowski**, Paul Stamm, Dominika Mihalikova, Matthias Oelze, Henning Ubbens, Lea Strohm, Michael Molitor, Thomas Münzel, and Andreas Daiber *(Department of Cardiology, Cardiology I, University Medical Center Mainz, Mainz, Germany)*<br>• PP II_E03 **IMPORTANCE OF PHYSIOLOGICAL OXYGEN LEVELS *IN VITRO* FOR $K^+$ CHANNEL ACTIVITY** |


**Fan Yang**, Giovanni E. Mann, and Joern R. Steinert *(School of Cardiovascular and Metabolic Medicine & Sciences, King's BHF Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.)*

- PP II_E04 **ENDOTHELIAL DELETION OF MIRNA-34A BLOCKS AORTIC ANEURYSM DEVELOPMENT IN NRF2 KO MICE – FOCUS ON ENDOTHELIAL CELL PROLIFERATION**
  Aleksandra Kopacz, Damian Kloska, Anna Bar, Marta Targosz-Korecka, Dominik Cysewski, Kamil Awsiuk, Aleksandra Piechota-Polanczyk, Milena Cichon, Stefan Chlopicki, Alicja Jozkowicz, and **Anna Grochot-Przeczek** *(Department of Medical Biotechnology, Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland)*
- PP II_E05 **REGULATION OF RECEPTOR-MODULATED ENDOTHELIAL NADPH OXIDASES ISOFORMS BY DYNAMIC SUBUNIT INTERCHANGE**
  **Markus Waldeck-Weiermair**, Apabrita A. Das, Taylor Covington, Shambhu Yadav, Tanoy Dutta, Fotios Spyropoulos, Arvind K. Pandey, and Thomas Michel *(Cardiovascular Division, Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA)*
- PP II_E06 **NITRIC OXIDE AND HYDROGEN SULFIDE AS PART OF COMPENSATORY AND RESERVE VASOACTIVE MECHANISMS OF ISOLATED ARTERIES IN NORMOTENSIVE AND HYPERTRIGLYCERIDEMIC RATS**
  **Sona Cacanyiova**, Andrea Berenyiova, Jozef Torok, Igor Buchwalow, Hana Malinska, and Martina Cebová *(Institute of Normal and Pathological Physiology, Center for Experimental Medicine, Slovak Academy of Sciences, Bratislava, Slovak Republic)*
- PP II_E07 **FERROPTOSIS AS A NEWLY PROPOSED REDOX-SENSITIVE DISEASE MECHANISM IN CHRONIC KIDNEY DISEASE INDUCED CARDIOVASCULAR DISEASE**
  **Janina Frisch**, Patrick Träger, Christina Röll, Melina Duncklenberg, Stella Youssafi, Claudia Goettsch, Heidi Noels and Leticia Prates Roma *(Biophysics, Saarland University, Homburg, Germany)*
- PP II_E08 **TARGETING MICRORNA DYSREGULATION IN SKELETAL MUSCLE ISCHAEMIA**
  **Clara Sanz-Nogués**, Alan J Keane, Michael Creane, Xizhe Chen, Sean O Hynes, Dulan Jayasooriya, Caomhán J Lyons, Emma Horan, Isha Sikri, Stephen J Elliman, Katarzyna Goljanek-Whysall, and Timothy O'Brien *(Regenerative Medicine Institute, REMEDI, School of Medicine, University of Galway, Ireland)*
- PP II_E09 **EFFECT OF HYPOXIA AND HYPOXIA/REOXYGENATION ON REDOX BALANCE AND MITOCHONDRIAL FUNCTION IN CARDIAC CELLS**
  **Ana Mata**, and Susana Cadenas *(Centro de Biología Molecular Severo Ochoa, CSIC/UAM, Cantoblanco, Madrid, Spain)*
- PP II_E10 **REDOX RESILIENCE IN HYPOXIA-TOLERANT TENEBRIO MOLITOR LARVAE**
  Silva Enzo, Rodrigues Israel Mesack, and **Moreira Daniel** *(University of Brasilia, Faculty of Health Sciences, Brasilia, Brazil)*
- PP II_E11 **MITOCHONDRIAL AND METABOLIC ADAPTATIONS TO HYPOXIA AND REOXYGENATION IN MICE**
  **Xavier Capó**, Cayetano Navas-Enamorado; Margalida Torrens-Mas; Ana Molina-de la Llave, Lluis Masmiquel, Alberto Diaz-Ruiz, and Marta González-Freir *(Research Group in Community Nutrition and Oxidative Stress, University of the Balearic Islands, University Institute for*


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| 17:30 – 19:00 | *Health Science Research, IUNICS, Palma de Mallorca, Spain, and Translational Research in Aging and Longevity, TRIAL, Group, Health Research Institute of the Balearic Islands, IdISBa, Palma de Mallorca, Spain)*<br>• PP II_E12 **TARGETING MPO/HOCL/HMGB1 SIGNALING CASCADES IN MICROENVIRONMENT COULD BE A CRITICAL THERAPEUTIC STRATEGY TO REDUCE HEMORRHAGIC TRANSFORMATION IN ISCHEMIC STROKE WITH DELAYED T-PA TREATMENT**<br>**Shuang Chen**, Ao Shang, JingRui Pan, HanSen Chen, MeiLing Wu, Suhua Qi, and JianGang Shen *(School of Chinese Medicine, University of Hong Kong, Hong Kong, China)*<br>• PP II_E13 **ARIPIPRAZOLE, BUT NOT OLANZAPINE, ALTERS THE RESPONSE TO OXIDATIVE STRESS IN FAO CELLS BY REDUCING THE ACTIVATION OF MITOGEN-ACTIVATED PROTEIN KINASES (MAPKS) AND PROMOTING CELL SURVIVAL**<br>Barbara Kramar, Tinkara Pirc Marolt, Ayse Mine Yilmaz Goler, Dušan Šuput, Irina Milisav, María Monsalve *(Instituto de Investigaciones Biomédicas Sols-Morreale, CSIC-UAM, Madrid, Spain)*<br>**Group F – Metabolism and nutrition**<br>*Chairs: Patricia I. Oteiza (Department of Nutrition, University of California, Davis, CA, USA), and Ufuk Ersoy (University of Liverpool, Institute of Life Course & Medical Sciences, Department of Musculoskeletal and Ageing Science, Liverpool, U.K.)*<br>----------<br>• PP II_F01 **ACUTE CARDIOVASCULAR EFFECTS OF HEATED TOBACCO PRODUCTS UNDER THE PREVENTIVE INFLUENCE OF BEETROOT JUICE**<br>**Paul Stamm**, Dominika Mihalikova, Patrick Dittmann, Lea Strohm, Alexander Czarnowski, Omar Hahad, Matthias Oelze, Philipp Lurz, Thomas Münzel, and Andreas Diaber *(University Medical Center Mainz, Mainz, Germany)*<br>• PP II_F02 **A NEW APPROACH PREDICTING PHENOLIC PROFILES OF COMMERCIALIZED FOOD BEVERAGES THROUGH THE DETERMINATION OF TOTAL ANTIOXIDANT CAPACITY BY THE PAOT LIQUID® TECHNOLOGY**<br>**Joël Pincemail**, Mouna Kaci, Gerard Lizard, and Smail Meziane *(Centre Hospitalier Universitaire, CHU, de Liège, Dept. Clinical Chemistry, Sart Tilman Liège, Belgium)*<br>• PP II_F03 **EPR EVALUATION OF ANTIOXIDANT CAPACITY IN DIFFERENT SWEET POTATO VARIETIES FROM AN AGRIFOOD BREEDING PROGRAMME**<br>**Adrin Aicardo**, Anibal M. Reyes, Cecilia Chavarra, Mauricio Mastrogiovanni, Joanna Lado, and Rafael Radi *(Departamento de Bioqumica, Facultad de Medicina, Universidad de la Repblica, Montevideo, Uruguay)*<br>• PP II_F04 **MILKY WAY TO HEALTH: DISCOVERING ANTIOXIDANT TREASURES IN DAIRY BY-PRODUCTS**<br>**Valeria Scalcon** *(Department of Biomedical Sciences, University of Padova, Padova, Italy)*<br>• PP II_F05 **NITRIC OXIDE PRODUCTION IN THE HUMAN STOMACH IS SUSTAINED BY DIETARY NITRATE UNDER ORAL DYSBIOSIS**<br>**Beatriz Paiva**, João Gonçalves, Vitória Viegas, João Laranjinha, and Bárbara Rocha *(Center for Neuroscience and Cell Biology, University of Coimbra, Coimbra, Portugal)* |


- PP II_F06 **EFFECTS OF INORGANIC NITRATE ON CARDIOVASCULAR PERFORMANCE IN RESPONSE TO HANDGRIP TEST IN YOUNG MEN WITH PREVIOUS ANDROGENIC ANABOLIC STEROIDS ABUSE**
  Leonardo Lopes Santos Silva, Leonardo Da Silva Gonçalves, Marcio Fernando Tasinafo Junior, Yaritza Brito Alves Sousa, Carolina Scoqui Guimaraes, Carlos Roberto Bueno Junior, and **Cicero Jonas Rodrigues Benjamim** *(Institute for Physical Activity and Nutrition, School of Exercise and Nutrition Sciences Deakin University, Burwood, Australia)*
- PP II_F07 **PRECISION NUTRITION: LIPID PROFILE AND SEASONAL VARIATIONS OF MACKEREL OIL AS A SOURCE OF OMEGA-3**
  **Roberta Russo**, and Desirée Bartolini *(Pharmaceutical Sciences, University of Perugia, Perugia, Italy)*
- PP II_F08 **CARNOSINASE INHIBITION ENHANCES REACTIVE SPECIES SCAVENGING IN HIGH FAT DIET**
  Charlie Jr. Lavilla, Merrel P. Billacura, Suniya Khatun, Daniel P. Cotton, Vivian K. Lee, Sreya Bhattacharya, Paul W. Caton, Craig Sale, John D. Wallis, A. Christopher Garner, and **Mark Turner** *(School of Science and Technology, Nottingham Trent University, Nottingham U.K.)*
- PP II_F09 **MELATONIN COUNTERACTS CADMIUM AND FREE FATTY ACID-INDUCED LIPOTOXICITY IN HUMAN HEPATOCYTES: LIPIDOMICS CHARACTERIZATION AND MOLECULAR INSIGHTS**
  **Anna Migni**, Desirée Bartolini, Roberta Russo, and Francesco Galli *(Scienze Farmaceutiche, University of Perugia, Perugia, Italy)*
- PP II_F10 **COENZYME Q10 (COQ10) SUPPLEMENTATION IN HIGH-FAT DIET-FED RATS: EFFECTS ON UBIQUINOL LEVELS, OXIDATIVE STRESS, AND HEART MITOCHONDRIAL COMPLEXES**
  **Monica Galleano**, Mario Contin, Francisco Baez, Elizabeth Robello, Hyun Jin Lee, Silvana Cantu, Natalia Rukavina-Mikusic, Marcelo Choi, Cesar Fraga, Laura Valdez, and Valeria Tripoli *(Fisicoquimica, Facultad de Farmacia y Bioquimica, IBIMOL, Universidad de Buenos Aires, CONICET, Buenos Aires, Argentina)*
- PP II_F11 **EFFECTS OF DIMETHYL FUMARATE ON PLASMA TRIGLYCERIDE LEVELS AND PPAR ALPHA GENE EXPRESSION IN HYPERTRIGLYCERIDEMIC RATS EXPOSED TO CHRONIC CROWDING STRESS**
  **Iveta Bernatova**, Michal Kluknavsky, Aybuke Bozkurt, Andrea Micurova, Anjum Anjum, and Peter Balis *(Centre of Experimental Medicine, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovakia)*
- PP II_F12 **GSNOR DRIVES AGE-RELATED OBESITY BY REGULATING THE S-NITROSATION OF BECLIN-1 TO PROMOTE ADIPOSE TISSUE WHITENING**
  **Xinhua Qiao**, and Chang Chen *(Institute of Biophysics, Chinese Academy of Sciences, Beijing, China)*
- PP II_F13 **EFFECTS OF ANGONG NIUHUANG PILL (AGNHP) ON PROTECTING AGAINST ISCHEMIC BRAIN INJURY VIA MAINTAINING GUT BARRIER FUNCTION AND REGULATING BRAIN-GUT AXIS**
  **Ao Shang**, and Jiangang Shen *(School of Chinese Medicine, The University of Hong Kong, Hong Kong SAR, China)*
- PP II_F14 **NATURAL VITAMIN D FORMULATIONS PREVENT OXIDATIVE STRESS IN HUMAN HEPATOCYTES EXPOSED TO FREE FATTY ACID-INDUCED LIPOTOXICITY**


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| 17:30 – 19:00 | **Ina Varfaj**, Desirée Bartolini**,** Anna Migni, Isabelle Franco Moscardini, Alessia Tognoloni, Maria Rachele Ceccarini, Roberta Russo, Stefano Garetto, Jacopo Lucci, and Francesco Galli *(Department of Pharmaceutical Sciences, University of Perugia, Perugia, Italy)*<br>**Group G – Redox chemistry and technology**<br>*Chairs: Ivan Gout (Department of Structural and Molecular Biology, University College London, London, U.K.), and Cristina Mas Bargues (University of Valencia, Valencia, Spain)*<br>----------<br>• PP II_G01/FT I_05 **A MULTICHANNEL ELECTROCHEMICAL PLATFORM FOR CONTROLLED HYDROGEN PEROXIDE MODULATION IN REDOX BIOLOGY**<br>**Marie Jakešová**, Jiří Ehlich, Sabine Erschen, Leia Nemeskeri, Verena Handl, Rainer Schindl, Linda Waldherr, and Eric D. Głowacki *(Central European Institute of Technology, Brno University of Technology, Brno, Czech Republic)*<br>• PP II_G02 **LONG-TIME CONTINUOUS MONITORING OF REACTIVE OXYGEN SPECIES (ROS) AND OXYGEN LEVELS IN LIVE CELLS WITH LAB-IN-A-CELL MICROCHIPS**<br>**Alberto García-Nieto** *(A4Cell Nanodevices, Madrid, Spain)*<br>• PP II_G03 **EVALUATION OF RADICAL SCAVENGING ACTIVITY OF COBENFY(TM) USING RAPID-SCAN VS CONTINUOUS WAVE EPR SPECTROSCOPY**<br>Lusine Tonoyan, and **Arno Siraki** *(Faculty of Pharmacy & Pharmaceutical Sciences, University of Alberta, Edmonton, Canada)*<br>• PP II_G04 **TRACE ION MEASUREMENTS FOR IDENTIFICATION OF OXIDIZING SPECIES IN ACIDIFIED SODIUM CHLORITE**<br>**Ayuta Kishimoto**, Yuta Okada, Kenta Sugiyama, Masahiro Kohon, and Koji Fukui *(College of Systems Engineering and Sciences, Shibaura Inst. of Technol., Saitama, Japan)*<br>• PP II_G05 **COMPARISON OF DIFFERENT ASSAYS FOR ASSESSING ANTIOXIDANT CAPACITY IN SERUM OF DOGS WITH PYOMETRA**<br>**Camila Rubio**, Luis G. Arostegui, José Cerón, Marina Cirino, Maria Lopez, and Elizabeth Schmidt *(Animal Surgery and Medicine, University of Murcia, Murcia, Spain)*<br>• PP II_G06 **A NOVEL MASS SPECTROMETRY-BASED METHOD FOR QUANTIFYING LOW MOLECULAR WEIGHT AND PROTEIN PERSULFIDES IN BIOLOGICAL SYSTEMS**<br>Jan *Miljkovic (Mitochondrial Biology Unit, University of Cambridge, Cambridge, U.K.)*<br>• PP II_G07 **ESTABLISHING A QUANTITATIVE CHEMOPROTEOMIC LABELING METHOD FOR PROTEIN N-CHLORAMINES**<br>**Lena Kühn**, Lisa Knoke, Frank Peeters, Christina Bunse, Katrin Marcus-Alic, Frank Schulz, and Lars Leichert *(Microbial Biochemistry, Ruhr University Bochum, Bochum, Germany)*<br>• PP II_G08 **LC-MS DETECTION AND QUANTIFICATION OF CERAMIDES IN EXTRACELLULAR VESICLES: BIOMARKERS FOR STRESS-MEDIATED PATHOLOGIES** |


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| | **Mauricio Mastrogiovanni**, Bárbara Maturana, Úrsula Wyneken, and Homero Rubbo *(Departamento de Bioquímica, Facultad de Medicina and Centro de Investigaciones Biomédicas, Universidad de la República, Montevideo, Uruguay)*<br>• PP II_G09 **EVALUATION OF ANTIOXIDANT, ANTI-HEMOLYTIC, AND ANTI-INFLAMMATORY ACTIVITIES OF VISCERAL FISH BY-PRODUCT**<br>**Omar Atrooz**, Razan Younes, and Rajashri Naik *(Department of Biological Sciences, Mutah University, Mutah, Jordan)*<br>• PP II_G10 **QUANTITATIVE ASSESSMENT OF A,B-UNSATURATED CARBONYL ADDUCTION TO PROTEINS**<br>**Patricia Capillas Herrero**, Luke Gamon, and Michael J. Davies *(Biomedical Science, BMI, University of Copenhagen, Copenhagen, Denmark)*<br>• PP II_G11 **A PRELIMINARY STUDY OF TUBULIN REDOX BEHAVIOUR IN SOLUTION AND AT INTERFACES**<br>**Vlastimil Dorcak** *(Department of Medical Chemistry and Biochemistry, Palacky University, Olomouc, Czech Republic)*<br>• PP II_G12 **DETERMINATION OF THE BACTERICIDAL SUBSTANCE IN HYPOCHLORITE BY IODOMETRIC TITRATION**<br>**Yuta Okada**, Ayuta Kishimoto, Kenta Sugiyama, Masahiro Kohno, and Koji Fukui *(College of Systems Engineering and Sciences, Shibaura Institute of Technology, Saitama, Japan)*<br>• PP II_G13 **FLUORESCENCE IMAGING FOR THE PROGRESSION OF OXIDATIVE STRESS-RELATED DISEASES**<br>**Bo Tang** *(College of Chemistry, Chemical Engineering and Materials Science, Shandong Normal University, Jinan, China)*<br>• PP II_G14 **EFFECT OF FREE RADICAL GENERATION ON OXIDIZING POWER IN THE EQUILIBRIUM BETWEEN HYPOCHLOROUS ACID AND SODIUM HYPOCHLORITE**<br>**Kenta Sugiyama**, Ayuta Kishimoto, Yuta Okada, Masahiro Kohno, and Koji Fukui (*College of Systems Engineering and Sciences, Shibaura Institute of Technology, Saitama, Japan)* |
| 19:00 – 20:00 | **General Assembly SFRR-E** *(BAH)* |


| Day 3<br>**Thursday, June 5, 2025** | | | |
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| 08:00 – 09:00 | **Sunrise Session – Workshop for authors**<br>*Chairs: Tilman Grune (German Institute of Human Nutrition Potsdam-Rehbruecke, DIfE, Nuthetal, Germany), and Niki Chondrogianni (National Hellenic Research Foundation, Athens, Greece)*<br>---<br>SE II_01 **Anthony Newman** *(Former publisher, freelance, Amsterdam, The Netherlands),* and **Manon Burger** *(Elsevier, Amsterdam, The Netherlands)*<br>**How to write a great research paper, and get it accepted by a good journal** | | |
| 09:00 – 09:30<br><br>09:30 – 10:00<br><br>10:00 – 10:30 | **Symposium VII – Oxidases and peroxidase enzymes in health and disease** *(BAH)*<br>*Chairs: Michael J. Davies (Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark), and Clare L. Hawkins (Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark)*<br>---<br>S VII_01 Helen Hemmling, Line A.E. Hallberg, Els A. Hartsema, Laura Degani, Clara Skjølberg, Per Hägglund, and **Clare L. Hawkins** *(Department of Biomedical Sciences, University of Copenhagen, Copenhagen, Denmark)*<br>**Role of myeloperoxidase, neutrophil extracellular traps (NETs), and modified histones in cellular dysfunction**<br>S VII_02 **Albert van der Vliet**, Aida Habibovic, Litiele C. da Cruz, Miklos Geiszt, Vikas Anathy, and Yvonne M.W. Janssen-Heininger (D*epartment of Pathology and Laboratory Medicine, Larner College of Medicine, University of Vermont, Burlington, VT, USA)*<br>**Oxidative mechanisms in fibrotic disease: from NADPH oxidases to peroxidasin (PXDN)**<br>S VII_03 Heather L Shearer, Sarah du Toit, Paul E Pace, Michael J Currie, Claudia Trappetti, Frederick Stull, | 09:00 – 09:30<br><br>09:30 – 10:00<br><br>10:00 – 10:30 | **Symposium VIII – Hypoxia research: where to now?** *(HBB)*<br>*Chairs: Cormac Taylor (University College Dublin, Ireland), and Brian M. Ortmann (Centre for Cancer, Newcastle University, Newcastle, U.K.)*<br>---<br>S VIII_01 Dilem Shakir, Michael Batie, Chun-Sui Kwok, Niall S. Kenneth, and **Sonia Rocha** *(Department of Biochemistry, Cell and System Biology. Institute of Systems, Molecular and Integrative Biology, University of Liverpool, Liverpool, U.K.)*<br>**Mechanisms controlling gene expression in hypoxia, an unexpected role for NF-kappaβ**<br>S VIII_02 Ian M. Cartwright, Ji Yeon Kim, and **Sean P. Colgan** (*University of Colorado School of Medicine, Rocky Mountain Veterans Administration, Aurora, CO, USA)*<br>**New insights into neutrophil-mediated bystander tissue damage**<br>S VIII_03 **Brian M. Ortmann** (*Centre for Cancer, Newcastle University, Newcastle, U.K.)*<br>**Defining the role of methylation in the cellular response to hypoxia** |


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| | Christoph Göbl, Renwick C J Dobson, and **Nina Dickerhof** *(Mātai Hāora, Centre for Redox Biology and Medicine, Department of Pathology and Biomedical Science, University of Otago Christchurch, Christchurch, New Zealand)*<br>**Targeting hypothiocyanous acid defence mechanisms in bacteria** | | |
| 10:30 – 11:00 | Coffee / Poster viewing / Exhibition *(BAH, HBB)* | | |
| | **Symposium IX – Supersulfides in stress responses and adaptation** *(BAH)*<br>*Chairs: Motohiro Nishida (Department of Physiology, Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan), and Philip Eaton (William Harvey Research Institute, Barts & The London School of Medicine & Dentistry, Queen Mary University of London, U.K.)*<br>---------- | | **Symposium X – Protein aggregation in aging and related diseases** *(HBB)*<br>*Chairs: Tilman Grune (German Institute of Human Nutrition Potsdam-Rehbruecke, DIfE, Nuthetal, Germany), and Tim Baldensperger (University of Vienna, Vienna, Austria)*<br>---------- |
| 11:00 – 11:30 | S IX_01 **Hozumi Motohashi** *(Department of Medical Biochemistry, Tohoku University Graduate School of Medicine, Sendai, Japan)*<br>**Functional roles of mitochondrial supersulfide production** | 11:00 – 11:30 | S X_01 Anna Gioran, Eleni Panagiotidou, and **Niki Chondrogianni** *(Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece)*<br>**Proteasome activation against protein aggregation in ageing and Alzheimer's disease** |
| 11:30 – 12:00 | S IX_02 **Uladzimir Barayeu**, Seiryo Ogata, Tsuyoshi Takata, Minkyung Jung, Tetsuro Matsunaga, Mike Lange, Masanobu Morita, Yuka Unno, Saber Boushehri, Tomoaki Ida, Akira Nishimura, Lorenzo Catti, Takayuki Shimizu, Ryo Ushioda, Takakazu Nakabayashi, Seji Asamitsu, Kazuki Fusegawa, Takashi Suzuki, Takanori Ishida, Naoko Tanda, Yasuo Watanabe, Ryo Yamaguchi, Fumiko Yano, Mieko Arisawa[0], Albert van der Vliet, Dennis Stuehr, Frauke Gräter, Camilo Aponte-Santamaría, James A. Olzmann, Marcus Conrad, Tobias P. Dick, Hozumi Motohashi, and Michito Yoshizawa *(Takaaki Akaike Department of Environmental Medicine and* | 11:30 – 12:00<br><br>12:00 – 12:30 | S X_02 **D. Allan Butterfield** *(Department of Chemistry and Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY, USA)*<br>**Small oligomeric aggregates of amyloid beta-peptide and brain oxidative damage: Intersection of the lipid peroxidation product HNE, glucose dysmetabolism and Alzheimer disease**<br>S X_03 **Tim Baldensperger,** Anna Hampel, Andreas Fraunhofer, Laura Holzapfel, and Christian F.W. Becker *(Institute of Biological Chemistry, University of Vienna, Vienna, Austria)*<br>**Expressed protein ligation to study effects of posttranslational modifications on protein aggregation** |


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| 12:00 – 12:30 | *Molecular Toxicology, Tohoku University Graduate School of Medicine, Sendai, Japan)*<br>**Evolutionarily conserved cyclo-octasulfur prevents ferroptosis in mammals**<br>S IX_03 **Melanie Madhani** *(Department of Cardiovascular Sciences, College of Medicine and Health, University of Birmingham, Birmingham, U.K.)*<br>**Redox regulation of hypersulfides in cardiovascular health and disease: bench to bedside** | | |
| 12:30 – 13:00 | **SFRR-E Leopold Flohé Award Lecture** *(BAH):*<br>*Chairs: Niki Chondrogianni (Institute of Chemical Biology, National Hellenic Research Foundation, Athens, Greece), and Malcolm Jackson (University of Liverpool, Liverpool, U.K.)*<br>---<br>AL_07 **Aphrodite Vasilaki** *(Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Sciences, Faculty of Health & Life Sciences, University of Liverpool, Liverpool, U.K.)*<br>**Physiological and structural changes in skeletal muscle and nerve-muscle interactions: the effects of ageing and nutrition** | | |
| 13:00 – 13:30 | Lunch break / Pick-up of lunch boxes | | |
| 13:30 – 14:00<br>14:00 – 14:30 | **Lunchtime Research Workshop** *(HBB)*<br>*Chairs: Giovanni E. Mann (School of Cardiovascular and Metabolic Medicine & Sciences, King's British Heart Foundation Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.), and Michael P. Murphy (MRC Mitochondrial Biology Unit, Biomedical Campus, University of Cambridge, Cambridge, U.K.)*<br>---<br>LS II_01 **Michael P. Murphy** *(MRC Mitochondrial Biology Unit, Biomedical Campus, University of Cambridge, Cambridge, U.K.)*<br>**The role of oxygen concentration in ischemia-reperfusion**<br>**Roundtable Discussion - *Importance of physiological oxygen levels for redox signaling and high throughput screening in live cells*** | | |
| | **Selected Oral Presentations V – Cancer and Aging** *(BAH)*<br>*Chairs: Alessandra Pecorelli (Department of Neuroscience and Rehabilitation, University of Ferrara, Ferrara, Italy), and* | | **Selected Oral Presentations VI – Metabolism and Nutrition** *(HBB)* |


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| | *Chris Kevil (Center for Redox Biology and Cardiovascular Disease, COBRE, LSU Health Shreveport, Shreveport, LA, USA)* | | *Chairs: Eric E. Kelley (West Virginia University, School of Medicine, Morgantown, WV, USA), and Irundika H. K. Dias (College of Life and Health Sciences, Aston University, Birmingham, U.K.)* |
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| 14:30 – 14:45 | OP V_01 Ersilia Varone, Michele Retini, Alessandro Cherubini, Andre Guidarelli, Giovanni Piersanti, Giovanni Bottegoni, Massimo Broggini, Orazio Cantoni, and **Ester Zito** *(Istituto di Ricerche Farmacologiche Mario Negri IRCCS, Milan, Italy, and Department of Biomolecular Sciences, University of Urbino Carlo Bo, Urbino, Italy)* **Small molecule-mediated ERO1a inhibition restrains aggressive breast cancer** | 14:30 – 14:45 | OP VI_01 **Samantha Gallero**, Carlos Henríquez-Olguín, Roberto Meneses-Valdés, Kaspar W. Persson, Valentina Parra, and Thomas E. Jensen *(Laboratory of Differentiation and Cell Metabolism, Faculty of Chemical & Pharmaceutical Sciences, University of Chile, Santiago, Chile, and August Krogh Section for Molecular and Human Physiology, Department of Nutrition, Exercise and Sports, University of Copenhagen, Copenhagen, Denmark)* **Mitochondrial oxidative stress at the crossroads of energy overload and glut4 trafficking in cardiac insulin resistance** |
| 14:45 – 15:00 | OP V_02 **Monika Mlinarić**, Inês Vieira da Silva, Graça Soveral, and Ana Čipak Gašparović *(Division of Molecular Medicine, Ruđer Bošković Institute, Zagreb, Croatia)* **Glucose-dependent modulation of aquaporins and its impact on redox signaling in breast cancer cells** | 14:45 – 15:00 | OP VI_02 **Tomohiro Sawa**, Touya Toyomoto, and Tianli Zhang *(Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University, Kumamoto, Japan)* **Identification of endogenous methylation products of cysteine, homocysteine, and glutathione persulfides in bacteria, plants, and mammalian cells** |
| 15:00 – 15:15 | OP V_03 Julia Berner, Lea Miebach, and **Sander Bekeschus** *(Department of Dermatology and Venereology, Rostock University Medical Center, Rostock, Germany, and ZIK plasmatis, Leibniz Institute for Plasma Science and Technology, INP, Greifswald, Germany)* **Oxidative stress resistance is linked to metabolic rewiring toward oxidative phosphorylation in tumor cells** | 15:00 – 15:15 | OP VI_03 **Victoria Gutierrez**, Nicole Colussi, Sonia Salvatore, Francisco Schopfer, and Gustavo Bonacci *(Department of Clinical Biochemistry and Immunology, CIBICI, School of Chemistry, National University of Cordoba. Cordoba, Argentina)* **Nitrated fatty acids: unveiling their potential to reprogram monocyte phenotypes in early atherosclerosis** |
| 15:15 – 15:30 | OP V_04 **Makoto S. Suematsu**, Takehiro Yamamoto, and Nobuyoshi Hiraoka *(Bioimaging Center, CIEM, Kawasaki, Japan)* **On-tissue polysulfide detection serve as a post-operative marker to predict cancer invasiveness and chemosensitivity: SERS imaging clinical study** | 15:15 – 15:30 | OP VI_04 **Eleonora Cremonini**, Maëlys Rouget, Solenne Arredi, Charlotte Devulder-Mercier, Robin Cellier, Pauline Pinel, Pierrick Girard, Irena Krga, Gerardo G. Mackenzie, and Patricia I. Oteiza *(Department of Nutrition, University of California Davis, Davis, CA, USA)* **Epicatechin prevents high-fat diet-induced β-cell dysfunction by mitigating endoplasmic reticulum and oxidative stress** |
| 15:30 – 15:45 | OP V_05 **Laura Belleri**, Sofia Petrucci, Alice Pailleret, Mayrone Mongellaz, Xia Tang, Jie He, Xavier Guillonneau, | | |


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| | Olivier Goureau, Filippo Del Bene, and Shahad Albadri *(Institut de la Vision, Sorbonne Université, UMR_S968, UMR_7210, Paris, France)* **Redox biology and retinal development: the role of prdx6 in zebrafish RPC homeostasis** | 15:30 – 15:45 | OP VI_05 Beatriz Paiva, João Laranjinha, and **Bárbara S. Rocha** *(Center for Neuroscience and Cell Biology, and Faculty of Pharmacy, University of Coimbra, Coimbra, Portugal)* **Dietary nitrate as a key regulator of microbiota-host redox communication: impact on gut barrier integrity and metabolic function** |
| 15:45 – 16:00 | OP V_06 **Sarah Jelleschitz**, Christopher Kremslehner, Ionela-Mariana Nagelreiter, Michaela Schirato, Adrian Sandgren Fors, Maria Fedorova, Zhixu Ni, Gaëlle Gendronneau, Agnès Tessier, Francesca Marcato, and Florian Gruber *(Dermatology, Medizinische Universität Wien, Vienna, Austria, and CDL SKINMAGINE, Vienna, Austria)* **Reactive lipids from senescent fibroblasts modify collagen and impact resident cell function** | 15:45 – 16:00 | OP VI_06 Oiva V Kamati, Laura Bragagna, Simeon Davies, Dirk Bester, Corrie Uys, Roan Louw, Karl-Heinz Wagner, and **Jeanine L Marnewick** *(Applied Microbial and Health Biotechnology Institute, Cape Peninsula University of Technology, Cape Town, South Africa)* **Dietary antioxidants to modulate exercise-induced oxidative stress and the impact on performance – a case for Rooibos** |
| 16:00 – 16:15 | OP V_07 **Teresa Vergara**, Giovanni Casoli, Martina Placidi, Valeria Cordone, Giovanna Di Emidio, and Carla Tatone *(Department of Life, Health and Environmental Science, University of L'Aquila, L'Aquila, Italy)* **NAD⁺ boosting strategies ameliorate senescent phenotype in human granulosa cells** | 16:00 – 16:15 | OP VI_07 Celia Arias, Raisha Garcia, Jacob Polzin, Laura María Del Carmen Gallego-López, Carmen De Miguel, Jun Feranil, Ines Armando, Pedro Jose, and **Santiago Cuevas** *(Division of Renal Diseases & Hypertension, Department of Medicine, The George Washington University, Washington, DC, USA)* **Effect of the DJ-1/Nrf2 pathway on nlrp3 inflammasome activation and high salt diet- induced blood pressure elevation** |
| 16:15 – 16:30 | OP V_08 **Sophie C. Broome**, Jamie Whitfield, and John A. Hawley *(Exercise and Nutrition Research Program, Mary MacKillop Institute for Health Research, Australian Catholic University, Melbourne, VIC, Australia)* **Reversing age-related declines in exercise-induced redox responses: the potential of mitochondria-targeted antioxidants** | 16:15 – 16:30 | OP VI_08 **Norma Frizzell,** Richard McCain, Holland Smith, and Gerardo Piroli *(University of South Carolina, Columbia, SC, USA)* **Linking altered microglial metabolism to an impaired inflammatory response in mitochondrial Complex I deficiency** |
| 16:30 – 17:00 | Coffee / Poster viewing / Exhibition *(BAH, HBB)* | | |
| | **Young Investigator Award Winners' Presentations** *(BAH)* *Chairs: Aphrodite Vasilaki (Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Science, ILCaMS, Faculty of Health & Life Sciences University of Liverpool, Liverpool, U.K.), and Enrique Cadenas (Pharmacology and Pharmaceutical Sciences, USC Mann School of Pharmacy and Pharmaceutical Sciences, University of Southern California, Los Angeles, CA, USA)* | | |


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| 17:00 – 17:09 | YIA_01 *(Istanbul Conference)* **Lea Strohm**, Henning Ubbens, Dominika Mihalikova, Alexander Czarnowski, Paul Stamm, Marin Kuntic, Dorothee Atzler, Thomas Münzel, Cristian Weber, Christoph Knosalla, Esther Lutgens, Andreas Daiber, and Steffen Daub *(Cardiology I, University Medical Center, Johannes Gutenberg University, Mainz, Germany)*<br>**CD40-TRAF6 inhibition mitigates oxidative stress and inflammation in hypertension and diabetes: insights from preclinical and clinical studies** |
| 17:09 – 17:18 | YIA_02 *(Vienna Conference)* **Aseel Saadia**, Prince Kumar Singha, Yara Sheenia, and Tawfeeq Shekh-Ahmad *(The Institute for Drug Research, The School of Pharmacy, Faculty of Medicine, The Hebrew University of Jerusalem, Jerusalem, Israel)*<br>**Altering chronic epilepsy through targeted inhibition of NADPH oxidase 2** |
| 17:18 – 17:27 | YIA_03 *(Istanbul Conference)* **Atilla E. Altinpinar**, Ioannis Kanakis, Susan E. Ozanne, Vanja Pekovic-Vaughan, Katarzyna Goljanek-Whysall, and Aphrodite Vasilaki *(Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Sciences, ILCaMS, University of Liverpool, Liverpool, U.K.)*<br>**Long-term consequences of gestational protein restriction on skeletal muscle development in male offspring** |
| 17:27 – 17:36 | YIA_04 *(Istanbul Conference)* **Ufuk Ersoy,** Atilla E. Altinpinar, Ioannis Kanakis, Mandy J. Peffers, Susan E. Ozanne, Malcolm J. Jackson, Katarzyna Goljanek-Whysall, and Aphrodite Vasilaki (*Department of Musculoskeletal & Ageing Science, Institute of Life Course & Medical Science, ILCaMS, Faculty of Health & Life Sciences University of Liverpool, Liverpool, U.K.)*<br>**Long-term effects of early-life and lifelong protein restriction on skeletal muscle and neuromuscular function in mice** |
| 17:36 – 17:45 | YIA_05 *(Istanbul Conference)* **Irene Cánovas-Cervera**, Elena Nacher-Sendra, Carolina Ferrando, Enric Dolz-Andrés, Francisco Ros-Valverde, María Rodríguez-Gimillo, David Bolado, Beatriz Quevedo, Georgia García-Fernández, Nieves Carbonell, Salvador Mena-Mollá, Federico V. Pallardó, and José Luis García-Giménez *(Department of Physiology, Faculty of Medicine, University of Valencia and INCLIVA Health Research Institute, Valencia, Spain, and Consortium Center for Biomedical Network Research, CIBER-ISCIII, Madrid, Spain)*<br>**Stress in the ICU: Providing novel biomarkers for distinct sepsis subtypes diagnosis, stratification, and prognosis** |
| 17:45 – 17:54 | YIA_06 *(Spetses Summer School)* **Anne S. Scheller,** Josephine Priebs, Katrin Spengler, Holger Steinbrenner, Regine Heller, and Lars O. Klotz *(Institute of Nutritional Sciences, Friedrich-Schiller-University Jena, Jena, Germany)*<br>**Anti-senescent and pro-aging properties of SELENBP1 and its C. elegans ortholog SEMO-1 in human endothelial cells and in nematodes** |
| 17:54 – 18:03 | YIA_07 *(Spetses Summer School)* **Karoline C. Scholzen**, Lukas Zeisel, Constantin Diekmann, Oliver Thorn-Seshold, Christoph Ziegenhain, and Elias S.J. Arnér *(Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Stockholm, Sweden)*<br>**Control of redox signaling by TXNRD1 studied at single cell level** |
| 18:03 – 18:12 | YIA_08 *(Andros Conference)* **Christina Karampasi,** Ioannis Sfiniadakis, Aspasia Petri, and Michail Rallis *(National and Kapodistrian University of Athens, School of Health Sciences, Department of Pharmacy, Laboratory of Pharmaceutical Technology, Panepistimiopolis, Athens, Greece)*<br>**In vivo study of dermatological effects following single or long-term exposure to a portable UV-C mercury lamp for disinfection** |


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| 18:12 – 18:21 | YIA_09 *(Andros Conference)* **Anastasia-Ioanna Papantonaki,** Eleni Georgakopoulou, Christina Barda, Panagiota Loumou, Ioannis Sfiniadakis, Jane Anastassopoulou, Andreas Vitsos, and Michail Rallis *(Section of Pharmaceutical Technology, Department of Pharmacy, National and Kapodistrian University of Athens, Panepistimiopolis Zografou, Athens, Greece)*<br>**Exploring the Non-Toxic Therapeutic Potential of Dioscorea communis in Combating Oral Pathogenic Bacteria and Their Effects on Hard and Soft Oral Tissues** |
| 18:21 – 18:30 | YIA_10 *(Andros Conference)* **Dimitra Statha**, Ioannis Sfiniadakis, Michail Rallis, Jane Anastassopoulou, and Eleni Alexandratou (*Laboratory of Biomedical Optics and Applied Biophysics, School of Electrical and Computer Engineering, National Technical University of Athens and Section of Pharmaceutical Technology, Department of Pharmacy, National and Kapodistrian University of Athens, Athens, Greece)*<br>**Investigating the wound healing potential of low-power 661 nm laser light in a pigmented hairless murine model** |
| 18:30 – 19:30 | **General Assembly SFRR-I** *(BAH)* |
| 20:00 – 24:00 | **Conference dinner, Galway Bay Hotel (bus transfer)** |


<table>
<tr><td colspan="4">Day 4<br>Friday, June 6, 2025</td></tr>
<tr><td>08:00 – 09:00</td><td colspan="3">ECR Sunrise Session - AI in Scientific Research and Publishing – Revolution or Risk? (BAH)<br>Chairs: Carmen Veith (Calliditas Therapeutics, Geneva, Switzerland), and Timoteo Marchini (University Heart Centre Freiburg, Freiburg, Germany)<br>Panel Members: Albert van der Vliet (University of Vermont, Burlington, VT, USA), Cristina Mas Bargues (University of Valencia, Valencia, Spain), Karen Guerrero Vázquez (University of Galway, Galway, Ireland), Manon Burger (Elsevier, Amsterdam, The Netherlands), Anthony Newman (Former publisher, freelance, Amsterdam, The Netherlands), and Virtual AI expert (OpenAI, San Francisco, CA, USA)<br>---<br>SE III_01 AI in Scientific Research and Publishing – Revolution or Risk?</td></tr>
<tr><td>09:00 – 09:30<br><br>09:30 – 10:00<br><br><br><br><br><br><br><br><br><br>10:00 – 10:30</td><td>Symposium XI – Exploring interfaces: Redox balance and neuroinflammation through the glial lens (BAH)<br>Chairs: João Bettencourt Relvas (University of Porto, Portugal), and João Laranjinha (University of Coimbra, Portugal)<br>---<br>S XI_01 Juan Bolaños (University of Salamanca, Spain)<br>Astrocytic metabolism: energy or signaling?<br>S XI_02 Camila Portugal, Renato Socodato, and João B. Relvas (Glial Cell Biology Lab, Institute of Research and Innovation in Health, i3S, of the University of Porto, Portugal, Department Biomedicine, and Unit of Experimental Biology, Faculty of Medicine of the University of Porto, Porto, Portugal)<br>Modulation of vitamin C transporter 2 (SVCT2) transporter expression and ascorbate uptake as a stopgap for Alzheimer’s disease progression<br>S XI_03 Bumsik Cho (University of Pennsylvania, Philadelphia, PA, USA)<br>Sleep-dependent clearance of brain lipids by peripheral blood cells</td><td>09:00 – 09:30<br><br>09:30 – 10:00<br><br><br><br><br><br><br><br><br><br>10:00 – 10:30</td><td>Symposium XII – Redox modification of nucleic acids (HBB)<br>Chairs: Kasia Goljanek-Whysall (University of Galway, Ireland), and Brian McDonagh (University of Galway, Ireland)<br>---<br>S XII_01 Ken D. O'Halloran (University College Cork, Ireland)<br>Intermittent hypoxia-induced respiratory muscle dysfunction is NADPH oxidase dependent<br>S XII_02 Alexander B. Sklivas, Zach R. Hettinger, Katarzyna Goljanek-Whysall, and Esther E. Dupont-Versteegden (Department of Physical Therapy, Rehabilitation Sciences, Center for Muscle Biology, University of Kentucky, Lexington, KY, USA, and Department of Physiology, University of Galway, Galway, Ireland)<br>Age and sex-related differences in stress response due to disuse atrophy in skeletal muscle<br>S XII_03 Maria Borja Gonzalez (University of Galway, Ireland)<br>Oxi-miR-133 as a mediator of muscle loss in ageing and cancer cachexia</td></tr>
<tr><td>10:30 – 11:00</td><td colspan="3">Coffee / Poster viewing / Exhibition (BAH, HBB)</td></tr>
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| | **SFRR-E Catherine Pasquier Award Lecture** *(BAH)*<br>*Chairs: Clare L. Hawkins (Department of Biomedical Science, University of Copenhagen, Copenhagen, Denmark), and João Laranjinha (University of Coimbra, Portugal)*<br>--- |
| 11:00 – 11:30 | AL_08 **Paraskevi Kritsiligkou** *(Department of Biochemistry, Cell and Systems Biology, The University of Liverpool, Liverpool, U.K.)*<br>**Utilising tethered biosensors to uncover intracellular redox heterogeneity** |
| | **SFRRI Joanna and Kelvin J.A. Davies Rising Star Award Lecture** *(BAH)*<br>*Chairs: Joanna Davies and Kelvin J. A. Davies (University of Southern California, Los Angeles, CA, USA)*<br>--- |
| 11:30 – 12:00 | AL_09 **Carlos Henríquez-Olguín** *(University of Copenhagen Exercise Science Laboratory, Faculty of Medicine, Copenhagen, Denmark, and Universidad Finis Terrae, Santiago, Chile)*<br>**Molecular mechanisms underlying the redox regulation of muscle insulin action and exercise adaptations** |
| | **SFRR-E ECR Fellowship Presentation**s *(BAH)*<br>*Chairs: Patricia I. Oteiza (Department of Nutrition, University of California Davis, Davis, CA, USA), and Michael J. Davies (Department of Biomedical Science, University of Copenhagen, Copenhagen, Denmark)*<br>--- |
| 12:00 – 12:15 | ECR_01 **Valeria Cordone**, Andrea Bianchi, Sara Melija, Anna Guiotto, Giovanna Di Emidio, Carla Tatone, Alessandra Pecorelli, and Giuseppe Valacchi *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, and Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy)*<br>**Role of mitochondrial alterations as upstream triggers of NLRP3 inflammasome response in Rett syndrome** |
| 12:15 – 12:30 | ECR_02 Lourdes Caceres, Sheu-Tijani Olawale Abogunloko, Aitana de la Cruz Tabernero, Xiaowei Li, Deborah Tasat, Eva Rog-Zielinska, Oliver Gorka, Olaf Groß, Dirk Westermann, Dennis Wolf, and **Timoteo Marchini** *(Department of Cardiology and Angiology, University Heart Centre Freiburg, Freiburg, Germany)*<br>**Heterocellular crosstalk in air pollution PM2.5-induced metabolic derangements: Deciphering the interplay between redox and inflammatory pathways** |
| 12:30 – 12:45 | ECR_03 **Nikos Margaritelis**, Panagiotis Chatzinikolaou, George Nastos, Anastasios Theodorou, Vassilis Paschalis, Ioannis Vrabas, Antonios Kyparos, and Michalis Nikolaidis *(Department of Physical Education and Sports Science, Serres, Aristotle University of Thessaloniki, Thessaloniki, Greece)*<br>**Exploring human personalized redox biology with N-of-1 trials: the RedoxOne project** |
| 12:45 – 13:00 | ECR_04 **Montserrat Vega**, Ferran Gomez-Armengol, José Ayte, and Elena Hidalgo *(MELIS-Oxidative Stress and Cell Cycle Group, Universitat Pompeu Fabra, Barcelona, Spain)*<br>**Promoting cell fitness and longevity in fission yeast – the role of nutrient deprivation pathways on mitochondrial efficiency** |


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| 13:00 – 14:00 | **Discussion on current topics in redox biology and future directions/year in review** *(BAH) - free attendance for BenBedPhar members (lunch boxes provided)*<br>*Chairs: Chang Chen (Institute of Biophysics, Chinese Academy of Sciences, Beijing, China), and Giovanni E. Mann (School of Cardiovascular and Metabolic Medicine & Sciences, King's British Heart Foundation Centre of Research Excellence, Faculty of Life Sciences & Medicine, King's College London, London, U.K.)*<br>*Panel members:* **Masayuki Yamamoto** *(Tohoku University, Tohoku Medical Megabank Organization, Sendai, Japan)*, **Antonio Cuadrado** *(Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain)*, **Tilman Grune** *(German Institute of Human Nutrition Potsdam-Rehbruecke, DIfE, Nuthetal, Germany)*, **Kelvin J.A. Davies** *(University of Southern California, Los Angeles, CA, USA)*, **Patricia I. Oteiza** *(Department of Nutrition, University of California Davis, Davis, CA, USA)*, **Giuseppe Valacchi** *(Department of Environmental and Prevention Sciences, University of Ferrara, Ferrara, Italy, Animal Science Department, Plants for Human Health Institute, NC State University, Kannapolis, NC, USA, and Department of Food and Nutrition, Kyung Hee University, Seoul, South Korea)*, and **Jiangang Shen** *(School of Chinese Medicine, State Key Laboratory of Pharmaceutical Biotechnology, University of Hongkong, China)* |
| 14:00 – 14:30 | **Closing Ceremony** *(BAH)* |
| 14:30 – 14:50 | Poster Removal |
| | **Satellite Symposium I**<br><br>10th BenBedPhar Scientific Meeting<br>**NRF2: Physiology, Pathology, Pharmacology, and Clinical development**<br><br>**COST Action CA20121 Bench to Bedside transition for Pharmacological regulation of NRF2 in non-communicable diseases**<br><br>Funded by the European Union |
| 14:50 – 15:00 | **Welcome and Introduction** *(HBB LLT)*<br>**Kasia Goljanek-Whysall** *(University of Galway, Galway, Ireland), and* **Antonio Cuadrado** *(Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain)* |
| 15:00 – 15:50 | **BenBedPhar – Plenary Lecture** *(HBB LLT)*<br>*Chairs: Antonio Cuadrado (Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain), and Kasia Goljanek-Whysall (University of Galway, Galway, Ireland)*<br>---<br>SS I_01 **Masayuki Yamamoto** *(Tohoku University, Tohoku Medical Megabank Organization, Sendai, Japan)*<br>**Discovery and characterization of the KEAP1-NRF2 pathway** |


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| | **BenBedPhar – Session 1** *(HBB LLT)*<br>*Chairs: Antonio Cuadrado (Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain), and Kasia Goljanek-Whysall (University of Galway, Galway, Ireland)*<br>---------- |
| 15:50 – 16:20 | SS I_02 Ana Tomašić Paić, Marina Oskomić, Lea Barbarić, and **Mihaela Matovina** *(Division of Organic Chemistry and Biochemistry, Ruđer Bošković Institute, Zagreb, Croatia)*<br>**DPP3 as a modulator of NRF2-KEAP1 pathway: Insights from CRISPR-Cas9 knockout and gene expression analysis** |
| 16:20 – 16:50 | SS I_03 Shara Natalia Sosa Cabrera, Eleni Petsouki, Katrin Fischhuber, Manuel Matzinger, and **Elke H. Heiss** *(Department of Pharmaceutical Sciences, Division of Pharmacognosy, University of Vienna, Vienna, Austria)*<br>**NRF2 in dialogue with amp-activated kinase and cellular energy metabolism** |
| 16:50 – 17:20 | SS I_04 **Hozumi Motohashi** *(Department of Medical Biochemistry, Tohoku University Graduate School of Medicine, Sendai, Japan)*<br>**Metabolic and immunological features of NRF2-activated cancers** |
| 17:20 – 17:50 | Coffee / Poster viewing / Exhibition *(HBB LLT)* |
| | **BenBedPhar – Session 2** *(HBB LLT)*<br>*Chairs: Brigitta Buttari (Istituto Superiore di Sanità, Rome, Italy), and Ian Copple (University of Liverpool, Liverpool, UK)*<br>---------- |
| 17:50 – 18:20 | SS I_05 Miroslav Novak, Sharadha Dayalan Naidu, Dina Dikovskaya, Terry W. Moore, and **Albena T. Dinkova-Kostova** *(Division of Cancer Research, University of Dundee School of Medicine, Dundee, U.K.)*<br>**Pharmacological inhibition of KEAP1 by cysteine-targeting electrophiles and non-electrophilic protein-protein interaction inhibitors** |
| 18:20 – 18:50 | SS I_06 **Iveta Bernatova**, Michal Kluknavsky, Aybuke Bozkurt, Andrea Micurova, Anjum Anjum, and Peter Balis *(Centre of Experimental Medicine, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovakia)*<br>**Effects of dimethyl fumarate on plasma triglyceride levels and PPAR alpha gene expression in hypertriglyceridemic rats exposed to chronic crowding stress** |
| 18:50 – 19:20 | SS I_07 **Andreas Daiber** *(Center for Cardiology, Cardiology I, University Medical Center of the Johannes Gutenberg-University, German Center for Cardiovascular Research (DZHK), Partner Site Rhine-Main, Mainz, Germany)*<br>**Prevention of environmental stress and damage by activation of nuclear factor erythroid 2-related factor 2 (NRF2) and associated pathways** |
| 19:20 – 19:50 | SS I_08 Claire Fayad, Alexey Afonin, Laura Mussalo, Riikka Lampinen, Pasi Jalava, and **Katja M. Kanninen** *(A.I. Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland)*<br>**Temporal assessment of the NRF2 antioxidant response signaling induced by air pollution exposure** |


| Day 5<br>**Saturday, June 7, 2025** | | | |
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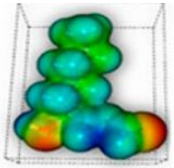
| | **BenBedPhar – Session 3** *(HBB LLT)*<br>*Chairs:* Ana S Falcao *(NOVA Medical School, Universidade Nova de Lisboa, Lisboa, Portugal),* and Isabel Lastres-Becker *(Instituto de Investigaciones Biomédicas "Sols-Morreale" UAM-CSIC, Instituto de Investigación Sanitaria La Paz (IdiPaz), Department of Biochemistry, School of Medicine, Universidad Autónoma de Madrid (UAM), and Centro de Investigación Biomédica en Red, Área Enfermedades Neurodegenerativas, CIBERNED, Instituto de Salud Carlos III, Madrid, Spain)*<br>---------- | | **Satellite Symposium II**<br><br>**Symposium of the Hydroxynonenal (HNE) Club**<br><br>  <br><br>**HNE Club – Session 1** *(HBB SLT)*<br>*Chair: Maria Fedorova (Technische Universität Dresden, Dresden, Germany)*<br>---------- |
| 09:00 – 09:30 | SS I_09 **Brigitta Buttari** *(Istituto Superiore di Sanità, Rome, Italy)*<br>**Sex differences in NRF2-mediated stress response and autophagy in MASLD and MASH models: Implications for therapeutic strategies** | 09:00 – 09:30 | SS II_01 **Eikan Mishima** *(Helmholtz Center Munich, Munich, Germany)*<br>**Ferroptosis regulation by micronutrients: vitamin K and selenium** |
| 09:30 – 10:00 | SS I_10 **Ian Copple** *(University of Liverpool, Liverpool, UK)*<br>**Advances and challenges translating the NRF2 science to the clinic** | 09:30 – 10:00 | SS II_02 **Corinne M. Spickett** *(Aston University, Birmingham, U.K.)*<br>**The effects of reactive lipid oxidation adducts on protein structure, activity and signalling** |
| 10:00 – 10:30 | SS I_11 **Anna-Lisa Levonen** *(A.I. Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland)*<br>**Biomarkers of NRF2 activation in non-small cell lung carcinoma** | 10:00 – 10:30 | SS II_03 **Yimon Aye** *(Oxford University, Oxford, U.K.)*<br>**Decoding precision HNE signalling activities in living systems** |
| 10:30 – 11:00 | *Coffee /Poster viewing (HBB)* | 10:30 – 11:00 | *Coffee / Poster viewing (HBB)* |
| | **BenBedPhar – Session 4** *(HBB LLT)*<br>*Chairs: Erkan Tuncay (Department of Biophysics, Ankara University, Faculty of Medicine, and Department of Mitochondria and Cellular Research, University of Health Sciences, Ankara, Turkiye), and Noemi Mencarelli (Department of Pharmacy, University "G. d'Annunzio" of Chieti-Pescara, Chieti, Italy)*<br>---------- | | **HNE Club – Session 2** *(HBB SLT)*<br>*Chair: Corinne M. Spickett (Aston University, Birmingham, U.K.)*<br>---------- |
| 11:00 – 11:30 | SS I_12 **Ana S. Falcão**, Margarida Pedro, Sandra Tenreiro, and | 11:00 – 11:30 | SS II_04 **T. Blake Monroe**, Ann V. Hertzel, Deborah M. Dickey, Thomas Hagen, Simon Vergara Santibanez, Islam Berdaweel, Catherine Halley, Patrycja Puchalska, Ethan J. Anderson, Christina D. Camell, Paul D. Robbins, and David A. Bernlohr *(Department of Biochemistry, Molecular Biology and* |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| | Miguel C. Seabra *(NOVA Medical School, Universidade Nova de Lisboa, Lisboa, Portugal)*<br>**Preclinical testing of dimethyl fumarate as a repurposing therapeutic approach for early age-related macular degeneration** | | *Biophysics, University of Minnesota-Twin Cities, Minneapolis, MN, USA)*<br>**Lipid-derived electrophiles induce carbonyl stress, mitochondrial dysfunction, and cellular senescence** |
| 11:30 – 12:00 | SS I_13 Ignacio Silva-Llanes, Lilia A. Smith, Aaron Abdelkader-Guillén, José Jiménez-Villegas, David Sarrió, Gema Moreno-Bueno, and **Isabel Lastres-Becker** *(Instituto de Investigaciones Biomédicas "Sols-Morreale" UAM-CSIC, Instituto de Investigación Sanitaria La Paz, IdiPaz, Department of Biochemistry, School of Medicine, Universidad Autónoma de Madrid, UAM, and Centro de Investigación Biomédica en Red, Área Enfermedades Neurodegenerativas, CIBERNED, Instituto de Salud Carlos III, Madrid, Spain)*<br>**Targeting pyroptosis: Exploring the role of mimethyl fumarate in TAU-driven neuroinflammation and neurodegeneration** | 11:30 – 12:00 | SS II_05 **Daniela Costa** *(Cardiff University, Cardiff, U.K.)*<br>**The role of oxPLs in coagulopathies associated with systemic inflammation** |
| 12:00 – 12:30 | SS I_14 Georgios Psarias, Panos G. Ziros, Dionysios V. Chartoumpekis, and **Gerasimos P. Sykiotis** *(Lausanne University Hospital and University of Lausanne, Lausanne, Switzerland)*<br>**Dissecting oxidation-dependent and oxidation-independent components of thyroid autoregulation** | 12:00 – 12:30 | SS II_06 **Maria Fedorova** *(Technische Universität Dresden, Dresden, Germany)*<br>**Lipid (per)oxidation at the cross-road of cell life and death** |
| 12:30 – 13:00 | SS I_15 **Antonio Cuadrado**, Daniel Carnicero-Senabre, Angel J. García-Yagüe, Marta Olazabal-Chias, Eduardo Cazalla, José Jiménez-Villegas, Raquel Fernández-Ginés, Maribel Escoll, and Ana I. Rojo *(Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain)*<br>**Targeting transcription factor NRF2 for brain protective therapy in Alzheimer's disease** | 12:30 – 13:00 | **Open Discussion: Redox biology at the interface between lipids and proteins**<br>**Posters (HNE Club):**<br>• SS II_07 **EXPLORING LIPIDOMIC ALTERATIONS AND OXIDATIVE STRESS IN CUSHING'S SYNDROME: IMPLICATIONS FOR DISEASE PATHOGENESIS AND THERAPY**<br>**Anna Migni**, Ina Varfaj, Roberta Russo, Desirée Bartolini, and Francesco Galli *(Department of Pharmaceutical Sciences, University of Perugia, Perugia, Italy)*<br>• SS II_08 **NEW INSIGHTS IN "CATECHOLALDEHYDE HYPOTEHSIS" IN PARKINSON'S DISEASE: THE GLUTATHIONYLATED-ALDEHYDE REDUCTASES AS CROSSLINK BETWEEN 4-HYDROXY-2-NONENAL AND 3,4-DIHYDROXYPHENYLACETALDEHYDE DETOXIFICATION**<br>**Rosella Rotondo**, Ivana Baldassarre, Lorenza Leonardi, Maria Gaglione, and Maria Francesca De Pandis *(Department of Human Science and Promotion of Quality of Life, San Raffaele Rome Open University, Rome, Italy)* |
| 13:00 – 14:30 | Lunch / **Guided Poster Presentations (BenBedPhar)**<br>*Chairs: Judy B. de Haan (Baker Heart and Diabetes Institute, Melbourne, Australia), and Albena T. Dinkova-Kostova (Division of Cancer Research, University of Dundee School of Medicine, Dundee, U.K.)* | | |


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| | ---<br>SS I_24 **HK3 MEDIATED ANTI FIBROTIC EFFECTS ARE NRF2 INDEPENDENT**<br>Elisabeth Rohbeck, Sharadha Dayalan Naidu, Albena T. Dinkova Kostova, and **Jürgen Eckel** *(CMR CureDiab Metabolic Research GmbH, Düsseldorf, Germany)*<br>SS I_25 **NOVEL INSIGHTS INTO THE BACH1-NRF2 AXIS; NEW TARGET GENES AND INHIBITORS**<br>Donika Klenja-Skudrinja, Kevin Ali, Volkan Sayin, and **Laureano de la Vega** *(Division of Cancer Research, University of Dundee, Dundee, U.K.)*<br>SS I_26 **EXPLORING MEDITERRANEAN DIET-DERIVED PHYTOCHEMICALS AS NRF2 ACTIVATORS TO MITIGATE OBESITY-RELATED INFLAMMATION**<br>**Sónia A. Pinho**, Ana Silva, Sónia Silva, Eugénia Carvalho, Anabela Marisa Azul, Paulo Matafome, Cláudia Pereira, Paulo J. Oliveira, and Maria Teresa Cruz (*Center for Neuroscience and Cell Biology, Center for Innovative Biomedicine and Biotechnology, CIBB, and Institute of Clinical and Biomedical Research, iCBR, Faculty of Medicine, University of Coimbra, Coimbra, Portugal)*<br>SS I_27 **EFFECT OF THE DJ-1/NRF2 PATHWAY ON NLRP3 INFLAMMASOME ACTIVATION AND HIGH SALT DIET-INDUCED BLOOD PRESSURE ELEVATION**<br>Celia Arias, Raisha Garcia, Jacob Polzin, Laura María Del Carmen Gallego-López, Carmen De Miguel, Jun Feranil, Ines Armando, Pedro Jose, and **Santiago Cuevas** *(Division of Renal Diseases & Hypertension, Department of Medicine, The George Washington University, Washington, DC, USA)*<br>SS I_28 **MIR-130:NRF2 INTERACTIONS REGULATE CELL SENESCENCE DURING AGEING**<br>**Maria Borja-Gonzalez**, Jose C. Casas-Martinez, Qin Xia, Raul Gonzalez-Ojeda, Brian McDonagh, and Katarzyna Goljanek-Whysall *(Discipline of Physiology, College of Medicine, Nursing and Health Sciences and Galway RNA Research Cluster, University of Galway, Galway, Ireland)*<br>SS I_29 **GLUCOSE AND GLICEROL REGULATION OF AQUAPORINS AND NRF2 EXPRESSION IN BREAST CANCER CELL LINES**<br>Monika Mlinarić, Ivan Lučić, Ana Josipa Jerončić, Lidija Milković, and **Ana Čipak Gašparović** *(Division of Molecular Medicine, Ruđer Bošković Institute, Zagreb, Croatia)*<br>SS I_30 **ANTIFERROPTOTIC EFFECTS OF H2S DONORS AGAINST DIABETIC INJURY OF β-CELLS IN VIVO AND IN VITRO**<br>**Milica Markelic**, Ana Stancic, Nevena Savic, Marko Miler, Vesna Martinovic, Ksenija Velickovic, Tamara Saksida, Ilijana Grigorov, Milos Filipovic, and Vesna Otasevic *(Department of Cell and Tissue Biology, Faculty of Biology, University of Belgrade, Belgrade, Serbia)*<br>SS I_31 **NRF2 ISOFORM 2 IS EXPRESSED IN HUMAN CELLS AND UNDERGOES RAPID PROTEASOMAL DEGRADATION**<br>Zuzanna Urban-Wójciuk, Alicja Dziadosz-Brzezińska, Sara Kusinski, Maciej Cieśla, and **Alicja Sznarkowska** *(International Centre for Cancer Vaccine Science, University of Gdansk, Gdansk, Poland)* |
| 14:30 – 15:00 | **BenBedPhar – Session 5** *(HBB LLT)*<br>*Chairs: Sharadha Dayalan Naidu (University of Dundee, Dundee, U.K.), and Ana I. Rojo (Department of Biochemistry and Biomedical Research Institute "Sols-Morreale", UAM/CSIC, Madrid, Spain)*<br>---<br>SS I_16 Leila Aryan, Suatnur Şık, Ibrahim Turkel, Firat Akat, Gokhan Burcin Kubat, and **Erkan Tuncay** *(Department of Biophysics, Ankara University, Faculty of Medicine, and Department of Mitochondria and Cellular Research, University of Health Sciences, Ankara, Turkiye)* |


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| 15:00 – 15:30 | **Mitochondrial transplantation activates NRF2 to restore cardiac function in heart failure**<br>SS I_17 **Harry van Goor**, Udo Mulder, Imran Ertugrul, Yang Luo, Florent Alagnat, Hannie Westra, and Nik Morton *(University Medical Center Groningen, Groningen, the Netherlands)* |
| 15:30 – 16:00 | **Thiosulfate as modulator of oxidative stress through NRF2 signalling**<br>SS I_18 Aleksandra Kopacz, Damian Kloska, Anna Bar, Marta Targosz-Korecka, Dominik Cysewski, Kamil Awsiuk, Aleksandra Piechota-Polanczyk, Milena Cichon, Stefan Chlopicki, Alicja Jozkowicz, and **Anna Grochot-Przeczek** *(Department of Medical Biotechnology, Faculty of Biochemistry, Biophysics and Biotechnology, Jagiellonian University, Krakow, Poland)* |
| 16:00 – 16:30 | **Endothelial deletion of miRNA-34a blocks aortic aneurysm development in NRF2 KO mice – focus on endothelial cell proliferation**<br>SS I_19 **Noemi Mencarelli** *(Department of Pharmacy, University "G. d'Annunzio" of Chieti-Pescara, Chieti, Italy)* |
| | **NRF2 modulation in macrophages as therapeutic strategy for tendon healing in tendinopathy** |
| 16:30 – 17:00 | Coffee / Poster viewing *(HBB)* |
| | **BenBedPhar – Session 6** *(HBB LLT)*<br>*Chairs: Iveta Bernatova (Centre of Experimental Medicine, Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Slovakia), and Katja M. Kanninen (A.I. Virtanen Institute for Molecular Sciences, University of Eastern Finland, Kuopio, Finland)*<br>---------- |
| 17:00 – 17:30 | SS I_20 **Sharadha Dayalan Naidu**, Tom Dixon, John D. Hayes, and Albena T. Dinkova-Kostova *(University of Dundee, Dundee, U.K.)* |
| 17:30 – 18:00 | **Regulation of micrornas by NRF2 activation in fibrosis**<br>SS I_21 José Jiménez-Villegas, Daniel Carnicero-Senabre, Janine Kirby, Ana Mata, Susana Cadenas, Martin R. Turner, Andrea Malaspina, Pamela J. Shaw, Adrià Sicart, Ludo Van Den Bosch, Antonio Cuadrado, and **Ana I. Rojo** *(Department of Biochemistry and Biomedical Research Institute "Sols-Morreale", UAM/CSIC, Madrid, Spain)* |
| 18:00 – 18:30 | **NRF2 as a therapeutic target in ALS: Insights into RNA metabolism and redox homeostasis**<br>SS I_22 Silvia Calero-Pérez, Inés Barahona, Elena del Fresno, Laura Villamayor, Águeda González-Rodríguez, M. Pilar Valdecantos, and **Ángela M. Valverde** *(Institute of Biomedical Research Sols-Morreale, Spanish National Research Council (CSIC-UAM), and Network for Biomedical Research in Diabetes and Associated Metabolic Diseases, CIBERDEM, ISCIII, Madrid, Spain)* |
| 18:30 – 19:00 | **Uncovering interactions between the NRF2 pathway and the plasticity of liver progenitor cells in liver diseases**<br>SS I_23 **Donna D. Zhang** *(Department of Molecular Medicine, UF Scripps, Jupiter, FL, USA)* |
| | **Persistent suppression of ferroptosis by NRF2 is essential for tumor maintenance** |
| 19:00 – 19:10 | **Farewell** *(HBB LLT)*<br>**Kasia Goljanek-Whysall** *(University of Galway, Galway, Ireland), and* **Antonio Cuadrado** *(Department of Biochemistry, Medical School, Autonomous University of Madrid, Madrid, Spain)* |