MONDAY, 4 JUNE 2018

	Auditorium I	
09:00	**Early Career Symposium (ECS)** **Chairs:** Sarah Chapple *King´s College London, UK* Consuelo Borrás *Universidad de Valencia, Spain* Bárbara Rocha *University of Coimbra, Portugal*	Registration
09:00 09:20	**Keynote 1** **The Decline of Adaptive Homeostasis & Adaptive Proteostasis in Ageing** Kelvin J. A. Davies *University of Southern California, Los Angeles, USA*	
09:20 09:35	**Iodide modulates oxidative protein modication induced by myeloperoxidase** Luke Gamon, Marta Ignasiak, Simon Dieterich, Max Sauerland, Michael Davies *University of Copenhagen, Denmark*	
09:35 09:50	**Mitochondrial hydrogen peroxide levels in healthy peripheral nerves and peripheral neuropathies** Gerben van Hameren, Nicolas Tricaud *Institute for Neurosciences Montpellier, France*	
09:50 10:05	**Boost of vitamin E metabolism as a novel treatment strategy for myocardial infarction** Maria Wallert, Melanie Ziegler, Xiaowei Wang, Ana Maluenda, Stefan Lorkowski, Karlheinz Peter *Baker Heart and Diabetes Institute, Melbourne, Australia; University of Jena, Germany; Competence Cluster for Nutrition and Cardiovascular Health (nutriCARD), Germany; Monash University, Australia*	

10:05 10:20	**Deregulation of small intestine permeability by miRNA-21 in liver disease** André Anastácio Santos, Marta Bento Afonso, Pedro Miguel Rodrigues, Rui Eduardo Castro, Cecília Maria Pereira Rodrigues *University of Lisbon, Portugal*	Registration
10:20 10:35	**High-fat and high cholesterol diet induces Alzheimer's like disease in mice** Gianni Mancini, Cândida Dias, Cátia Lourenço, Rui M. Barbosa, João Laranjinha, Andreza F. de Bem, Ana Ledo *Universidade Federal de Santa Catarina, Florianópolis, Brazil; Center for Neuroscience and Cell Biology, Coimbra, Portugal; University of Coimbra, Portugal*	
10:35 10:50	**Improving arterial surgery outcomes: Combating restenosis with nanotechnology and redox modulation** Nicholas Buglak, Wulin Jiang, Samuel Stupp, Melina Kibbe, Edward Moreira Bahnson *University of North Carolina at Chapel Hill and Northwestern University, USA*	
10:50 11:05	**Redox regulation in human endothelial cells: a critical role for the glycocalyx in mechanotransduction of fluid shear stress** Paraskevi-Maria Psefteli, Mark Fowler, Giovanni E. Mann, Richard C. Siow *King's College London, UK; Strategic Science Group, Unilever R&D, Colworth, UK*	
11:05 11:25	**Keynote 2** **The nitrate-nitrite-NO pathway in health and disease** Jon O. Lundberg *Karolinska Institutet, Stockholm, Sweden*	
11:25 12:00	**Coffee Break**	
	Auditorium I	
12:00 12:05	**Symposium YIA 2017** **Chairs:** Daniela Caporossi *Foro Italico University of Rome, Italy* Giuseppe Valacchi *University of Ferrara, Italy*	
12:05 12:20	**Synthesis and separation of peptide-oxidized phospholipid adducts, a potential lipoxidation marker** Catarina B. Afonso, Andrew R. Pitt, Corinne M. Spickett *Aston University, Birmingham, UK*	

12:20 12:35	**Scavenger receptor B1 as a new target for pollution-induced oxidative skin damage** Ximena Maria Muresan, Giuseppe Belmonte, Claudia Sticozzi, Franco Cervellati, Florian Gruber, Giuseppe Valacchi *University of Ferrara, Italy; Medical University of Vienna, Austria; Christian Doppler Laboratory for Biotechnology of Skin Aging, Vienna, Austria; NC State University, USA*	Registration
12:35 12:50	**Transcription factor NRF2 modulates chaperone mediated autophagy through the regulation of LAMP2A** Marta Pajares, Ana I. Rojo, Esperanza Arias, Antonio Diaz-Carretero, Ana Maria Cuervo, Antonio Cuadrado *University of Madrid, Spain; CIBERNED, ISCIII, Madrid, Spain; Albert Einstein College of Medicine, NY, USA*	
12:50 13:05	**Molecular mechanisms of HO-1 up-regulation in neuroblastoma cell response to oxidative stress** Sabrina Piras, Anna Lisa Furfaro, Rocco Caggiano, Lorenzo Brondolo, Umberto Maria Marinari, Maria Adelaide Pronzato, Raaella Faraonio, Mariapaola Nitti *University of Genoa, Italy; University of Naples "Federico II", Italy*	
13:05 13:20	**Novel redox-targets of NADPH oxidase 4** Oliver Löwe, Juliana Heidler, Ilka Wittig, Katrin Schröder, Flavia Rezende, Ralf P. Brandes *Goethe University Frankfurt, Germany*	
13:20 14:00	**ECS/YIA delegates lunch**	
	Auditorium I	
14:00 16:00	**Workshop Elsevier** ELSEVIER **Chair:** Ana Ledo *Center for Neurosciences and Cell Biology, Coimbra, Portugal*	
	How to write a great research paper, and get it accepted by a good journal Anthony Newman *Life Sciences Department, Elsevier, Amsterdam, The Netherlands*	
16:00 17:30	**Welcome address**	

	Auditorium I
16:30 17:30	**Trevor Slater Award Lecture** **Chairs:** Shinya Toyokuni *Nagoya University, Japan* Josiane Cillard *Université de Rennes, France*
	Metabolism and Redox Signaling in Brain Aging Enrique Cadenas *University of Southern California, Los Angeles, USA*
17:30 18:00	**Catherine Pasquier lecture** **Chairs:** Michael J. Davies *University of Copenhagen, Denmark*
	Analysis of oxidised lipids; validation and application Irundika Dias *Aston University, Birmingham, UK*
18:00 19:30	**Welcome Cocktail**

Tuesday, 5 June 2018

	Auditorium I	Auditorium III+IV	Pavilion 5
08:30 10:30	**Symposium I - The biology of H_2O_2 after 200 years of its discovery by Thenard** **Sponsored by:** MARS incorporated **Chairs:** Helmut Sies *Heinrich-Heine-University Düsseldorf, Germany* Enrique Cadenas *University of Southern California, Los Angeles, USA*	**Symposium II - Ferroptosis: A Program or a Free Radical Catastrophe?** **Chairs:** Marcus Conrad *Helmholtz Zentrum Muenchen, Germany* Valerian E. Kagan *University of Pittsburgh, USA*	**Symposium III - Oxidative stress and signaling by reactive oxygen and nitrogen species in plants** **Chairs:** Gary J. Loake *Edinburgh University, UK* Frank Van Breusegem *Ghent University – VIB, Gent, Belgium*
08:30 09:00	**H_2O_2 as a central redox signaling molecule in physiological oxidative stress** Helmut Sies *Heinrich-Heine-University, Düsseldorf, Germany*	**Ferroptosis: Death by lipid peroxidation** Brent Stockwell *Columbia University, New York, USA*	**Nitric oxide signalling in deconvolution** Gary J. Loake *Edinburgh University, UK*
09:00 09:30	**Genetically encoded molecular tools for H_2O_2 imaging and manipulation** Vsevolod V. Belousov *Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry, Moscow, Russian Federation*	**Molecular underpinnings controlling ferroptotic cell death** Marcus Conrad *Helmholtz Zentrum Munich, Germany*	**Plant oxidative stress signaling: towards the proteome and beyond** Frank Van Breusegem *Ghent University – VIB, Gent, Belgium*
09:30 10:00	**Control of AQP8- dependent H_2O_2 transport across the plasma membrane: Implications for cell signaling** Roberto Sitia *IRCCS Ospedale San Raaele and Università Vita-Salute, Milan, Italy*	**Oxidation of phosphatidylethanolamines as ferroptotic signals: control by lipoxygenases** Valerian E. Kagan *University of Pittsburgh, USA*	**Reactive oxygen species, nitric oxide and hydrogen sulfide in plant cell regulation** John T. Hancock *University of the West of England, Bristol, UK*

10:00 10:30	**Role of NOX-generated reactive oxygen species in health and disease** Karl-Heinz Krause *University of Geneva, Switzerland*	**Iron and ferroptosis in the pathogenesis of Alzheimer´s disease** James Duce *University of Cambridge, UK*	**Interaction between antioxidants and reactive nitrogen species during pepper fruit ripening** José M. Palma *Estación Experimental del Zaidín, Granada, Spain*
10:30 11:00	**Poster Viewing, Coffee Break and Commercial Exhibit**		
	Auditorium I		
11:00 11:30	**Leopold Flohe Award Lecture** **Chairs:** Leopold Flohe *Otto von Guericke University, Germany* José Viña *University of Valencia, Spain*		
	Pathways of myeloperoxidase-induced cellular damage in atherosclerosis Clare Hawkins *University of Copenhagen,Denmark*		
11:30 12:15	**SFRRE Annual Lecture** **Chairs:** Giovanni E. Mann *King's College London, UK* Henry Jay Forman *Leonard Davis School of Gerontology, CA, USA*		
	New horizons in hypoxia signaling pathways in health and disease Peter J Ratcliffe *University of Oxford and The Francis Crick Institute, London, UK*		

12:15 13:30	**Lunch, Poster Viewing, Commercial Exhibits**		Pavilion 5 **Women in Science Session** **Chairs:** Lin Mantell *St. John's University College of Pharmacy, NY, USA* Mari Carmen Gómez-Cabrera *University of Valencia, Spain* Mariapaola Nitti *Università degli Studi di Genova, Genoa, Italy*
	Auditorium I	Auditorium III+IV	Pavilion 5
13:30 15:30	**Symposium IV - Molecular Oxygen in Health And Disease: One Tissue's Hypoxia is Another's Hyperoxia** **Sponsored by:** Agilent BAKER RUSKINN BMG LABTECH **Chairs:** Giovanni E. Mann *King's College London, UK* Thomas P. Keeley *King's College London, UK*	**Symposium V - Biological Roles of Heme-Protein Redox Interactions** **Chairs:** Roland Stocker *Victor Chang Cardiovascular Research Institute, Australia* Miguel P. Soares *Instituto Gulbenkian de Ciência, Portugal*	**Symposium VI - Crosstalk Between Oxidative Stress and Inflammation in Cerebrovascular Disease: Mechanisms and Therapeutic Interventions** **Chairs:** Saverio Francesco Retta *University of Torino, Italy* Kathy Griendling *Emory University, Georgia, USA*
13:30 14:00	**Redox regulation under physiological oxygen levels** Giovanni E. Mann *King's College London, UK*	**Heme regulation of glucose metabolism in bloodstream infections** Miguel P. Soares *Instituto Gulbenkian de Ciência, Portugal*	**Inflammation and immune mechanisms of brain damage after stroke** Christopher G Sobey *University of Oxford and The La Trobe University, Melbourne, VIC, Australia*
14:00 14:30	**Substrate selectivity of prolyl hydroxylases** Michael A. McDonough *University of Oxford, UK*	**Singlet molecular oxygen regulates vascular tone and blood pressure in inflammation** Roland Stocker *Victor Chang Cardiovascular Research Institute, Australia*	**Nox4, Poldip2 and vascular function** Kathy Griendling *Emory University, Atlanta, USA*
14:30 15:00	**Oxygen in cancer and neovascularization** Sharon Gerecht *Johns Hopkins University, Baltimore,USA*	**Heme degradation in Myco-bacterium tuberculosis** Masao Ikeda-Saito *Tohoku University, Sendai, Japan*	**ROS-induced ROS release orchestrated by Nox4, Nox2 and mitochondria in VEGF signaling driving endothelial metabolism and angiogenesis** Masuko Ushio-Fukai *Augusta University, Augusta, USA*

15:00 15:30	**Oxygen homeostasis in intestinal health and inflammation** Eric Campbell *Queen's University Belfast, UK*	**Evolution of structure and function of human peroxidases** Christian Obinger *University of Natural Resources and Life Sciences, Vienna, Austria*	**Oxidative Stress and inflammation in cerebral cavernous malformation disease pathogenesis: Toward a unifying mechanistic and therapeutic landscape** Saverio Francesco Retta *University of Torino, Italy*
15:30 16:00	**Coffee Break**		
	Auditorium I	Auditorium III+IV	Pavilion 5
16:00 17:30	**Oral presentation 1 - Cardiovascular Redox Signaling** **Chair:** Maria Monsalve *Instituto de Investigaciones Biomédicas "Alberto Sols" (CSIC-UAM), Spain* John Maguire *OCC, USA*	**Oral presentation 2 - Thiols-Disulfide Exchange in Cell Signaling** **Chair:** Fabio Virgili *Research Centre for Food and Agriculture, Rome, Italy* Cesar Fraga *University of Davis, USA*	**Oral presentation 3 - Redox Signaling in Plants and Mammals** **Chair:** Bato Korac *University of Belgrade, Serbia* Tilman Grune *German Institute of Human Nutrition, Potsdam, Germany*
16:00 16:15	**Inflammatory mediators and atmospheric O_2 exacerbate antioxidant defences in endothelial cells** Thomas Keeley, Giovanni Mann *King's College London, UK*	**Specific irreversible targeting of the selenoprotein thioredoxin reductase 1 in cancer therapy** Elias S.J. Arnér *Karolinska Institutet, Sweden*	**The human Golgi anti-poptotic protein induces cell invasion by an H_2O_2- dependent mechanism** Nuno Almeida, Guia Carrara, Ana Fernandes, Maddy Parsons, Geoffrey Smith, Nuno Saraiva *CBIOS, Universidade Lusófona, Lisboa, Portugal; University of Cambridge, UK; King's College London, UK*

16:15 16:30	**Mitochondrial Na^+ import controls oxidative phosphorylation and hypoxic redox signalling** Pablo Hernansanz-Agustín, Elena Ramos, Tamara Villa-Piña, Elisa Navarro, Esther Parada, Laura Moreno, Alicia Izquierdo-Álvarez, Tamara Oliva, J. Daniel Cabrera-García, Ana Cortés, Daniel Tello, Rebeca Acín-Pérez, Izaskun Buendia, Juan Carlos Rodríguez-Aguilera, Plácido Navas, Ángel Cogolludo, Álvaro Martínez-del-Pozo, Javier Egea, Manuela G. López, Anna Bogdanova, José Antonio Enríquez, Antonio Martínez-Ruiz *I. de Investigaciones Sanitarias Princesa, Madrid, Spain; F. Medicina, Univ. Autónoma de Madrid and I. de Investigaciones Biomédicas Alberto Sols, Madrid, Spain; F. Medicina, Univ. Autónoma de Madrid, I. de Investigaciones Sanitarias Princesa, Madrid, Spain; Univ. Complutense de Madrid, Spain; Centro de Investigación Biomédica en Red de Enfermedades Respiratorias, Spain; Univ. Pablo de Olavide-CSIC, Sevilla, Spain; Centro de Investigación Biomédica en Red de Enfermedades Raras, Spain; I. de Investigaciones Sanitarias Princesa, Madrid, Spain; Centro Nacional de Investigaciones Cardiovasculares Carlos III, Madrid, Spain; Centro de Investigación Biomédica en Red de Fragilidad y Envejecimiento Saludable, Spain; Univ. Complutense de Madrid, Spain; Univ. of Zurich, Switzerland; Centro de Investigación Biomédica en Red de Enfermedades Cardiovasculares, Spain*	**Lipid peroxidation and GPx4: the players of the oxygen paradox** Fulvio Ursini, Valentina Bosello-Travain, Giorgio Cozza, Maria Luisa Di Paolo, Giovanni Miotto, Monica Rossetto, Antonella Roveri, Stefano Toppo, Rina Venerando, Ana-Marija Vučković Mattia Zaccarin, Matilde Maiorino *Department of Molecular Medicine, University of Padova, Italy*	**Redox signaling in plants** Joris Messens *VIB-VUB Center for Structural Biology, VIB, Brussels, Belgium; Brussels Center for Redox Biology, Brussels, Belgium; Vrije Universiteit Brussel, Brussels, Belgium*

16:30 16:45	**Regulation of UCP3 expression and function in response to hypoxia and oxidative stress in mouse cardiomyocytes** Patricia Sánchez-Pérez, Elia López-Bernardo, Andrea Anedda, Susana Cadenas *Centro de Biología Molecular "Severo Ochoa" , Madrid, Spain; Instituto de Investigación Sanitaria Princesa, Madrid, Spain*	**Thioredoxin-related protein of 14 kDa may directly reduce protein cysteinylation motifs** Pablo Martí-Andrés, Isabela Finamor, Belén Espinosa, Salvador Pérez, Sergio Rius-Pérez, Raquel Taléns-Visconti, Rafel León, Antonio Martínez-Ruiz, Elias S.J. Arnér, Juan Sastre *University of Valencia, Burjassot, Spain; Federal University of Santa Maria, Rio Grande do Sul, Brazil; Karolinska Institutet, Stockholm, Sweden; Instituto Teólfilo Hernando, Instituto de Investigación Sanitaria Princesa, Madrid, Spain*	**Redox responses to denervation in skeletal muscle** Mattia Scalabrin, Natalie Pollock, Anne McArdle, Malcolm J. Jackson, Aphrodite Vasilaki *University of Liverpool, U.K.*
16:45 17:00	**Human mercaptalbumin and nuclear factor kappa B in subjects with mildly impaired renal, vascular and metabolic health compared to "super-healthy" subjects: the BIOCLAIMS Integration study** Brigitte M. Winklhofer-Roob, Gernot Faustmann, Karl Öttl, Hildegard Hafner-Giessauf, Johanna Grabher, Petra Kieslinger, Matteo C. Sattler, Barbara Obermayer-Pietsch, Beate Tiran, Johannes M. Roob *University of Graz, Austria*	**Bicarbonate is required for hydrogen peroxide-dependent inactivation of PTP1B in presence of the Trx system and peroxiredoxin** Markus Dagnell, Qing Cheng, Paul E. Pace, Mark B. Hampton, Christine C. Winterbourn, Elias S.J. Arnér *Karolinska Institutet, Stockholm, Sweden; University of Otago, Christchurch, New Zealand*	**Peroxidase, holdase and signaling functions of *Trypanosoma cruzi* mitochondrial peroxirredoxin** Gabriela Specker, Damián Estrada, Carolina Prolo, María Noel Alvarez, Rafael Radi, Lucía Piacenza *Universidad de la República and Center for Free Radical Biology and Medicine (CEIN-BIO), Montevideo-Uruguay*
17:00 17:15	**Mechanosensitive miR-320a and miR-21-3p regulate Bach1 expression in endothelial cells** Phoebe Kitscha, Giovanni E Mann, Richard C Siow *Faculty of Life Sciences and Medicine, King's College London UK*	**Silencing Bach1 mRNA alters the age-related changes in Nrf2-dependent gene regulation in primary human bronchial epithelial cells** Henry Jay Forman, Jiuqi Zhang, Hongqiao Zhang *Leonard Davis School of Gerontology, University of Southern California Los Angeles, USA*	**Oxidation of disulfide bonds: a novel pathway to protein glutathionylation** Luke Carroll, Shuwen Jiang, Kasper Engholm-Keller, Adelina Rogowska-Wrzesinska, Michael Davies *University of Copenhagen, Denmark; University of Southern, Denmark*

17:15 17:30	**Kinetic and stoichiometric constraints determine the pathway of H_2O_2 consumption by red blood cells** Florencia Orrico, Matías N. Möller, Adriana Cassina, Ana Denicola, Leonor Thomson *Universidad de la República, Montevideo, Uruguay*	**Targeting mitochondria by TrxR2 inhibition** Maria Pia Rigobello, Valeria Scalcon, Federica Tonolo, Alessandra Folda, Anne Vessières, Michèle Salmain, Alberto Bindoli *Università di Padova, Italy; Sorbonne Université, Paris, France; Dipartimento di Scienze Biomediche, Padova, Italy*	**Glutathione S-transferase P influences the Nrf2-dependent control of cellular glutathione metabolism** Bartolini Desirée, Giustarini Daniela, Pietrella Donatella, Marinelli Rita, Torquato Pierangelo, Rossi Ranieri, Galli Francesco *University of Perugia, Italy; University of Siena, Italy*
17:30 19:30	**Poster Viewing, Refreshments and Commercial Exhibits**		

Wednesday, 6 June 2018

	Auditorium I	Auditorium III+IV	Pavilion 5
08:30 10:30	**Symposium VII - Nitric Oxide Biochemistry** **Chair:** Thomas Michel *Harvard Medical School, Boston, USA* Santiago Lamas *Centro de Biología Molecular "Severo Ochoa", Spain*	**Symposium VIII - Reactive Oxygen Species and Musculoskeletal Ageing** **Chair:** Malcolm J. Jackson *Institute Ageing & Chronic Disease, University of Liverpool, UK* Anne McArdle *Institute Ageing & Chronic Disease, University of Liverpool, UK*	**Symposium IX - A Systems-Oriented Perspective on Key Processes in Redox Stress and Regulation** **Chair:** Fernando Antunes *Universidade de Lisboa, Portugal* Armindo Salvador *Universidade de Coimbra, Portugal*
08:30 09:00	**Soluble guanylate cyclase activation by nitric oxide** Michael A. Marletta *University of California Berkeley, USA*	**NADPH oxidase Nox4 in osteoporosis** Katrin Schröder *Goethe-University Frankfurt, Germany*	**Superoxide radical-nitric oxide interplay and the fate of peroxynitrite in biological systems** Rafael Radi *Universidad de la República, Montevideo, Uruguay*
09:00 09:30	**Nitroso-oxidative stress and cardiovascular disease** Joseph Loscalzo *Harvard Medical School, Boston, USA*	**Aberrant redox signaling in age-related muscle decline** Anne McArdle *University of Liverpool, UK*	**Quantitative analysis of cytosolic and mitochondrial H_2O_2 metabolism and toxicity in human epithelial cells** Hadley D. Sikes *Massachusetts Institute of Technology, Cambridge, USA*
09:30 10:00	**Nitric oxide synthases, oxidant stress and cardiac remodeling** Jean-Luc Balligand *Université Catholique de Louvain, Brussels, Belgium*	**Modelling of the role of re-dox-related mechanisms in decline of musculoskeletal system** Alvaro Martinez Guimera *University of Newcastle, UK*	**Identification and quantification of protein damage induced by inflammatory oxidants** Michael J. Davies *University of Copenhagen, Denmark*

10:00 10:30	**Regulation of nitric oxide synthases by intracellular oxidants** Thomas Michel *Harvard Medical School, Boston, USA*	**Ultra-long-distance running and the liver. International journal of sports medicine** Zsolt Radak *University of Physical Education, Budapest, Hungary*	**Environmental stressors and cardiovascular risk: Impact of environmental noise exposure on vascular oxidative stress and damage** Andreas Daiber *University Medical Center at the Johannes Gutenberg University Mainz, Germany*
10:30 11:00	**Poster Viewing, Coffee Break and Commercial Exhibits**		
	Auditorium I		
11:00 11:40	**SFRRE Basic Science Award Lecture** **Sponsored by:** ELSEVIER **Chairs:** Juan Sastre *University of Valencia, Spain* Brigitte Winklhofer-Roob *University of Graz, Austria*		
	Exploring mitochondrial free radical production in health and disease Mike Murphy *MRC Mitochondrial Biology Unit, University of Cambridge, UK*		
11:40 12:20	**SFRRE Clinical Science Award Lecture** **Sponsored by:** DSM **Chairs:** Aphrodite Vasilaki *University of Liverpool, UK* Antonio Martínez Ruiz *Hospital de la Princesa, Madrid, Spain*		
	Taking oxidative stress from the bench to the bedside, exemplified by RNA oxidation Henrik Enghusen Poulsen *University of Copenhagen, Denmark*		
12:20 13:30	**Lunch, Poster Viewing, Commercial Exhibits**		

	Auditorium I	Auditorium III+IV	Pavilion 5
13:30 15:30	**Symposium X - Caloric Restriction and Mimetics as Interventions in Aging** **Sponsored by:** NU SKIN® **Chairs:** José Viña *University of Valencia, Spain* Mari Carmen Gómez-Cabrera *University of Valencia, Spain*	**Symposium XI - SPB Symposium – Molecular Mechanisms of Disease** **Sponsored by:** Sociedade Portuguesa de Bioquímica SPB **Chairs:** João Laranjinha *University of Coimbra, Portugal* Leonor Cancela *University of Algarve, Portugal*	**Symposium XII - Advances in Mitochondrial Physiology and Medicine** **Sponsored by:** OXYGEN CLUB OF CALIFORNIA O_2 ESTABLISHED 1994 **Chairs:** Danica Chen *University of California Berkeley, USA* Lester Packer *University of Southern California, Los Angeles, USA*
13:30 14:00	**A novel nutrient blend mimics calorie restriction transcriptomics in multiple tissues of mice and increases vitality and lifespan in *C. elegans*** Angela Mastaloudis *Nu Skin Enterprises, Provo, UT, USA*	**Brain redox bioenergetics are determined by OXPHOS organization in neurons and astrocytes** Juan Pedro Bolaños *University of Salamanca, Spain*	**Mitochondria and hematopoietic stem cell** Maegan Capitano *Indiana University School of Medicine, Indianapolis, USA*
14:00 14:30	**Malnutrition vs calorie restriction: The effects on maternal nutrient reduction in cardiac fetal mitochondrial function** Paulo J. Oliveira *CNC, University of Coimbra, Portugal*	**Molecular mechanisms regulating glia homeostasis** João B. Relvas *Universidade do Porto, Portugal*	**The mitochondrial metabolic checkpoint, stem cell aging and rejuvenation** Danica Chen *University of California Berkeley, USA*
14:30 15:00	**Exercise as a calorie restriction mimetic. Implications for the treatment of age associated frailty** Mari Carmen Gómez-Cabrera *University of Valencia, CIBERFES, INCLIVA, Valencia, Spain*	**$SIRT_3$, a modifier of mitochondrial function in Huntington's disease** A. Cristina Rego *University of Coimbra, Portugal*	**Keeping mitochondria in shape: a matter of life and death** Luca Scorrano *University of Padua, Italy*

15:00 15:30	**The SPRINTT project: tackling physical frailty and sarcopenia to prevent disability in the elderly** Emanuele Marzetti *Catholic University of the Sacred Heart, Rome, Italy*	**Molecules and mechanisms in maladaptative stress** Nuno Sousa *Universidade do Minho, Braga, Portugal*	**Mitochondria in kidney disease and recovery** Rick G. Schnellmann *University of Arizona College of Medicine, Tucson, USA*
15:30 16:00	**Coffee break**		
	Auditorium I	Auditorium III+IV	Pavilion 5
16:00 17:30	**Oral presentation 4 - Brain Redox Biology, Metabolism, and Cognition** **Chairs:** Catarina Oliveira *Center for Neuroscience and Cell Biology, University of Coimbra, Portugal* Rui Barbosa *University of Coimbra, Portugal*	**Oral presentation 5 - Redox Signaling in Health and Disease** **Chairs:** Paul Witting *University of Sydney, Australia* Yuji Naito *Kyoto Prefectural University of Medicine, Japan*	**Oral presentation 6 - Redox Stress in Cancer** **Chairs:** Regina Brigelius-Flohé *University of Potsdam, Germany* Lin Mantell *St. John's University College of Pharmacy, NY, USA*
16:00 16:15	**BDNF differentially activates Nrf2 in astrocytes and neurons** Tetsuro Ishii, Eiji Warabi, Giovanni E Mann *University of Tsukuba, Ibaraki, Japan; Faculty of Life Sciences and Medicine, King's College London, U.K.*	**Nitric oxide mediated neurovascular coupling is maintained under hypoxia through asorbate-dependent nitrite reduction to NO: An in vivo study in the hippocampus** Nuno R. Ferreira, Cátia F. Lourenço, Rui M. Barbosa, João Laranjinha *University of Coimbra, Portugal*	**The role of necroptosis in non-alcoholic fatty liver disease-related carcinogenesis** Marta B. Afonso, Pedro M. Rodrigues, André L. Simão, André A. Santos, Maria M. Gaspar, Rui E. Castro, Cecília M. P. Rodrigues *Universidade de Lisboa, Portugal*
16:15 16:30	**The dys-regulation of anti-oxidant defense via an impairment of Nrf2 response in the pathology of Friedreich's ataxia** Shannon Chiang, Amy Anzovino, Bronwyn E. Brown, Clare L. Hawkins, Des R. Richardson, Michael L.-H. Huang *University of Sydney, Australia; Heart Research Institute, Newtown, Australia; University of Copenhagen, Denmark*	**NOX2 is a major ROS source in exercising muscle regulating glucose uptake** Carlos Henríquez-Olguin, Jonas R. Knudsen, Steen H. Raun, Zhencheng Li, Lykke Sylow, Erik A. Richter, Enrique Jaimovich, Thomas E. Jensen *University of Copenhagen, Denmark*	**Cellular metal sequestration and redox stress by thiosemicarbazones induces endoplasmic reticulum stress in tumors to suppress cancer progression** Angelica Merlot, Nurul Shafie, Elizabeth Lim, Amanda Chen, Sumit Sahni, Yu Yu, Des Richardson *University of Sydney, NSW, Australia*

16:30 16:45	**Intranasal rapamycin protects against cognitive decline in a mouse model of Down syndrome** Fabio Di Domenico, Antonella Tramutola, Chiara Lanzillotta, Ilaria Zuliani, Andrea Arena, Eugenio Barone, Marzia Perluigi *Sapienza University of Rome, Italy*	**ROS regulate developmental and pathological denervation in vivo** Eva Sidlauskaite, Ian L. Megson, Phil D. Whiteld, Ines Batinic-Haberle, Michael P. Murphy, James N. Cobley, Peter R. Moult *Abertay University, Dundee, UK; University of Highlands and Islands, Inverness, UK; Duke University, Durham, USA; University of Cambridge, UK*	**Myoglobin induces mitochondrial fusion to inhibit cancer cell proliferation and tumor growth** Andrea Braganza, Kelly Quesnelle, Lisa Arnotti, Shivendra Singh, Sruti Shiva *University of Pittsburgh School of Medicine, USA*
16:45 17:00	**Amyloid-β peptide irreversibly blocks mitochondrial biogenesis and dynamics of self-renewing neural stem cells compromising neurogenesis** Maria Filipe Ribeiro, Tânia Genebra, Cecília Rodrigues, Susana Solá *Universidade de Lisboa, Portugal*	**Alpha-synuclein induces ferroptosis through generation of lipid peroxidation and calcium deregulation** Plamena R. Angelova, Minee-Liane Choi, Mathew H. Horrocks, David Klenerman, Sonia Gandhi, Andrey Y. Abramov *UCL Institute of Neurology, London, UK*	**A novel role for NUPR1 in the keratinocyte stress response to UV oxidized phospholipids** Marie-Sophie Narzt, Ionela-Mariana Nagelreiter, Olga Oskolkova, Valery Bochkov, Julie Latreille, Maria Fedorova, Zhixu Ni, Fernando J. Sialana, Gert Lubec, Manuel Filzwieser, Maria Laggner, Martin Bilban, Michael Mildner, Erwin Tschachler, Johannes Grillari, Florian Gruber *Medical University of Vienna; BOKU University; University of Graz; University of Vienna; Paracelsus University*
17:00 17:15	**SIRT3 overexpression in neurons enables β-oxidation and prevents palmitate-induced insulin resistance** Eugenia Alfine, Kristina Wardelmann, André Kleinridders *German Institute of Human Nutrition, Potsdam-Rehbrücke, Germany; German Center for Diabetes Research, Neuherberg, Germany*	**NADPH oxidase is a target for (-)-epicatechin in the prevention of fatty acid-induced insulin resistance** Eleonora Cremonini, Patricia I Oteiza *University of California Davis, USA*	**Nitroxide radical-containing nanoparticles impairs the tumorigenic potential of triple negative breast cancer** Babita Shashni, Yukio Nagasaki *University of Tsukuba, Ibaraki, Japan*

17:15 17:30	**Age-dependent changes of neurovascular coupling and brain metabolism in Fischer 344 rats** Cátia F. Lourenço, Ana Ledo, Miguel Caetano, Rui M. Barbosa, João Laranjinha *University of Coimbra, Portugal*	**oxSWATH: an integrative method for a comprehensive redox-centered analysis combined with a generic differential proteomics screening** Sandra I. Anjo, Matilde N. Melo, Liliana R. Loureiro, Lúcia Sabala, Pedro Castanheira, Mário Grãos, Bruno Manadas *University of Coimbra, Portugal; University of Aveiro, Portugal; Biotechnology Transfer Association, Cantanhede, Portugal*	**TGF-β1-induced epithelial-to-mesenchymal transition depends on mitochondrial dysfunction and biogenesis impairment in lung cancer cells** Jiaxin Zhang, Wei Zhang, QingbiaoZhou, Deqin Kong, Hai Chun-xu, Rui Liu *Medical University of the Air Force, Changchun, P.R. China*
17:30 19:30	**Poster Viewing, Refreshments and Commercial Exhibits**		
20:30	**Gala Dinner (venue: Estufa Fria)**		

THURSDAY, 7 JUNE 2018

	Auditorium I	Auditorium III+IV	Pavilion 5
08:30 10:30	**Symposium XIII - Redox Biology Based Prevention and Treatment of Cancer in the Era of Precision Medicine** **Chairs:** Shinya Toyokuni *Nagoya University Graduate School of Medicine, Japan* Young-Joon Surh *Seoul National University, South Korea*	**Symposium XIV - Autophagy in Pathophysiology (GEIRLI Symposium)** **Chairs:** Jordi Muntané *Institute of Biomedicine of Seville, Spain* Victor Manuel Victor *Universidad de Valencia, Spain*	**Symposium XV - Regulation of Hydrogen Sulfide Signalling in Mammals** **Chairs:** Elias Arnér *Karolinska Institutet, Stockholm, Sweden* Péter Nagy *National Institute of Oncology, Budapest, Hungary*
08:30 09:00	**Bright and dark sides of KEAP1-NRF2 system in carcinogenesis** Hozumi Motohashi *Tohoku University, Sendai, Japan*	**Autophagy and its link to the endoplasmic reticulum** Veit Goder *Department of Genetics, University of Seville, Spain*	**Metabolic reprogramming by hydrogen sulfide** Ruma Banerjee *University of Michigan, Ann Arbor, USA*
09:00 09:30	**A radical drug mechanism to inhibit tumor growth, metastasis, and resistance: targeting lysosomal P-glycoprotein** D. R. Richardson *University of Sydney, NSW, Australia*	**Free radicals at the crossroads of autophagy and immunity** Jennifer Martinez *NIEHS, Research Triangle Park, NC, USA*	**Cysteinyl-tRNA synthetase (CARS) controls endogenous hydropersulfide production and mitochondrial respiration** Takaaki Akaike *Tohoku University Graduate School of Medicine, Sendai, Japan*

09:30 10:00	**Differential roles for the redox sensitive transcription factor Nrf2 in carcinogenesis** Young-Joon Surh *Seoul National University, South Korea*	**Autophagy deficient mice as a model for studying stress-induced autophagy in vivo** Guillermo Mariño *University of Oviedo/Principality of Asturias Sanitary Research Institute (ISPA), Spain*	**Dynamic redox cycling of hydrogen sulfide and polysulfide species could represent an important regulatory element in sulfur biology** Péter Nagy *National Institute of Oncology, Budapest, Hungary*
10:00 10:30	**Ferroptosis in carcinogenesis and tumor biology** Shinya Toyokuni *Nagoya University Graduate School of Medicine, Japan*	**The role of autophagy and cancer** Guillermo Velasco *Complutense University and Instituto de Investigaciones Sanitarias San Carlos, Madrid, Spain*	**TrxR1- and Gsr-double-null mouse livers reveal unexpected mechanisms of redox homeostasis, oxidative damage defense, and long-term survival** Edward E. Schmidt *Montana State University, USA*
	Auditorium I		
10:30 11:30	**Forum discussion/debate: Science and Society** **Chairs:** João Laranjinha *University of Coimbra, Portugal* Enrique Cadenas *University of Southern California, Los Angeles, USA*		
	Knowledge and dialogue to deal with uncertainty Alexandre Quintanilha *University of Porto, Portugal*		
11:30 12:00	**Coffee Break**		
	Auditorium I	Auditorium III+IV	Pavilion 5
12:00 14:00	**Symposium XVI - Defence and Adaptation – The Critical Role of Reactive Oxygen Species** **Sponsored by:** **Chairs:** Helen Griffiths *University of Surrey, UK* Corinne Spickett *Aston University, UK*	**Symposium XVII - SPB Symposium – Molecular structure and Function** **Sponsored by:** **Chairs:** Graça Soveral *University of Lisbon, Portugal* Cláudio Soares *Nova University of Lisbon, Portugal*	**Oral presentation 7 - Nitrite, Peroxynitrite, and Oxidized Lipids** **Chairs:** Richard Siow *King's College London, UK* Bertrand Friguet *Pierre and Marie Curie University, Paris 6, France*

12:00 12:30	**NOX2-derived ROS in myeloid cell differentiation: Implications in cancer** Anna Martner *University of Gothenburg, Sweden*	**CO_2 toxicity: Role for redox reactions?** Ohara Augusto *Universidade de São Paulo, Brazil*	**12:00 - 12:15** **Effect of short-chain aldehydes on the enzymatic activity of pyruvate kinase** Bebiana C. Sousa, Jed Ashman, Corinne M. Spickett, Andrew R. Pitt *Aston University, Aston Triangle, Birmingham, UK*
			12:15 - 12:30 **Analytical strategies for the identification of oxidized lipids from adipose tissue** Mike Lange, Zhixu Ni,Georgia Angelidou, Maria Fedorova *Universität Leipzig, Germany*
12:30 13:00	**NOX2 NADPH oxidase controls responses to infection and sterile inflammation** Mary C. Dinauer *Washington University in St Louis School of Medicine, USA*	**Structural insights on aldehyde oxidase and xanthine oxidoreductase and their roles in xenobiotic metabolism** Maria João Romão *NOVA University of Lisbon, Portugal*	**12:30 - 12:45** **Generation of biliverdin reductase-a gene knockout mice to study the in vivo activities of bilirubin** Weiyu Chen, Ghassan Maghzal, Anita Ayer, Cacang Suarna, Louise Dunn, Roland Stocker *Victor Chang Cardiac Research Institute, Sydney, Australia; University of New South Wales, Sydney*
			12:45 - 13:00 **Dietary nitrate modulates gut microbiota profile and prevents the activation of mucosal inflammatory pathways induced by broad-spectrum antibiotics** Bárbara S. Rocha, Anabela Pereira, Gabriela J. Da Silva, João Laranjinha *University of Coimbra, Portugal*

13:00 13:30	**Reactive oxygen species ameliorate the clinical course of murine lupus** Markus Hoffmann *Friedrich-Alexander- University Erlangen- Nuremberg, UK Erlangen*	**The diversity of links between the functional and structural features of carboxylate transporters in prokaryotic and eukaryotic cells: Implications in health and biotechnology** Margarida Casal *University of Minho, Braga, Portugal*	**13:00 - 13:15** **Role for neutrophil-derived myeloperoxidase in promoting acute colitis; inhibition of disease progression with 4-Methoxy TEMPO** Belal Chami, Abigail Vallejo, Stephen KumJew, Nina Dickerhof, Anthony J. Kettle, Joanne M. Dennis, Paul Witting *The University of Sydney, Australia; University of Otago Christchurch, New Zealand* **13:15 - 13:30** **A1M-035, an improved human recombinant alpha-1-microglobulin, has therapeutic effects in rhabdomyolysis-induced acute kidney injury** Bo Åkerström, Lena Rosenlöf, Anneli Hägerwall, Sigurbjörg Rutardottir, Jonas Ahlstedt, Maria E Johansson, Lena Erlandsson, Maria Allhorn, Magnus Gram *Lund University, Sweden*

13:30 14:00	**Oxidative Stress, 'NObonomics', sulfur chemistry and the 'Reactive Species Interactome' – Lessons from a journey in adaptation to stress** Martin Feelisch *Faculty of Medicine, University of Southampton, UK*	**Hidden functions in the capsid protein of Dengue virus: biological relevance and drug development opportunities** Miguel Castanho *University of Lisbon, Portugal*	**13:30 - 13:45** **Declining renal function and thresholds of estimated glomerular filtration rate: impact on biomarkers of oxidative stress in the BIOCLAIMS cohort** Johannes M. Roob, Gernot Faustmann, Hildegard Hafner-Giessauf, Karl Öttl, Willibald Wonisch , Matteo C. Sattler, Johanna Grabher, Petra Kieslinger, Hans-Jürgen Gruber, Beate Tiran, Brigitte M. Winklhofer-Roob *Medical University of Graz, Austria; Karl-Franzens University of Graz, Austria*
			13:45 - 14:00 **Insights into the mechanisms of peroxynitrite-mediated inactivation of human glutamine synthetase** Silvina Bartesaghi, Nicolás Campolo, Mauricio Mastrogiovanni, Federico Issoglio, Ari Zeida, Christiane Ott, Tilman Grune, Darío Estrín, Rafael Radi *Universidad de la República, Uruguay; Universidad de Buenos Aires, Argentina; German Institute of Human Nutrition, Germany*
14:00 14:30	**Closing Ceremony**		