Conference Program

Saturday, December 9, 2017 at Tokyo University of Technology, Tokyo

Time	Presenter	Title and Chair
8:40	**Registration**	
9:20	**Opening Remarks**	
9:30-10:30	**Keynote Lecture** *chaired by C. Hawkins*	
	S. Toyokumi *Nagoya*	**01** Role of ferroptosis in carcinogenesis and cancer therapy
10:30-11:00	**Coffee Break**	
11:00-12:30	**Session 1: Antioxidants** *chaired by M. Davies and H. Nakagawa*	
11:00	**K. Croft** *Perth*	**02** Flavonoid-rich apple improves endothelial function in individuals at risk for cardiovascular disease without effects on oxidative stress
11:30	**A. Bulmer** *Gold Coast*	**03** Bilirubin acts as a multi-potent guardian of cardiovascular integrity: more than just a radical idea?
11:50	**K. Watanabe** *Tokyo*	**04** How is Edaravone Effective Against Acute Ischemic Stroke and Amyotrophic Lateral Sclerosis?
12:10	**M. Tanaka** *Hachioji*	**05** Stabilization of aqueous solutions of edaravone, a free radical scavenging drug
12:30-14:00	**Lunch and Poster Viewing**	
14:00-15:30	**Session 2: Young Investigators** *chaired by P. Witting and O. Handa*	
14:00	**Y. Suyama** *Kyoto*	**06** Role of mucus and oxidative stress in acetyl salicylic acid-induced small intestinal mucosal injury in rats
14:15	**M. Nagase** *Hachioji*	**07** Oxidative Stress and Abnormal Cholesterol Metabolism in Patients with Post-cardiac Arrest Syndrome
14:30	**C. Chang** *Taipei*	**08** N-Y-(L-Glutamyl)- L-selenomethionine ameliorates Parkinson's disease-like symptoms via reactive oxygen species scavenging ability in *Caenorhabditis elegans*
14:45	**S. Li** *Taipei*	**09** Chronic toxicity of ZnO-NPs alters immune response associated with reactive oxygen species imbalance in *C. elegans*
15:00	**S. Yoshimoto** *Okayama*	**10** Establishment of Photo-Aging Model in vitro by Repetitive UVA Irradiation
15:15	**S. Iida** *Hachioji*	**11** Uric acid as a molecular probe of singlet oxygen formation *in vivo*
15:30-16:00	**Coffee Break**	
16:00-18:00	**Session 3: Cancer** *chaired by J. Neuzil and S. Toyokuni*	
16:00	**Y. Nagasaki** *Tsukuba*	**12** Novel Antioxidative Nanotherapeitics by Nitroxide-radical Containing Polymer Nanoparticles
16:30	**L. Dong** *Gold Coast*	**13** Horizontal transfer of mitochondria and dihydroorotate dehydrogenase function in respiration recovery of mtDNA deficient cancer cells

17:00	**S. Sahni** *Sydney*	**14** NOVEL REDOX ACTIVE ANTI-CANCER AGENT, Dp44mT, ACTIVATES AMPK PATHWAY IN CANCER
17:20	**N. Ieda** *Nagoya*	**15** Development of Visible light-controllable NO donors and their biological applications
17:40	**B. Chami** *Sydney*	**16** Role for myeloperoxidase in promoting acute colitis; inhibition of disease progression with 4-Methoxy TEMPO

18:15- **Welcome Mixer**

Sunday, December 10, 2017 at Tokyo University of Technology, Tokyo

9:00-10:35	**Session 4: CVD** *chaired by J. de Haan and C. Hawkins*	
9:00	**Paul Witting** *Sydney*	**17** The nitroxide 4-methoxy TEMPO inhibits neutrophil-stimulated kinase activation in H9c2 cardiomyocytes
9:30	**J. de Haan** *Melbourne*	**18** Targeting the Nrf2/NLRP3-inflammasome axis as a novel strategy to lessen diabetic cardiovascular disease
10:00	**J. Talib** *Sydney*	**19** Myeloperoxidase is a potential therapeutic and diagnostic target for atherosclerotic plaque vulnerability
10:20	**V. Tang** *Sydney*	**20** Chlorinated nucleosides and their role in endothelial and smooth muscle cell dysfunction
10:35-11:05	**Coffee Break**	
11:05-12:40	**Session 5: New methods** *chaired by K. Croft and J. Fujii*	
11:05	**Y. Urano** *Tokyo*	**21** A reversible fluorescent probe for live-cell imaging and quantification of endogenous hydropolysulfides
11:35	**H. Nakagawa** *Nagoya*	**22** Photo-controllable Mitochondria-targeting Nitric Oxide Releasers and Modulation of Mitochondrial Dynamics
12:05	**L. Vong** *Tsukuba*	**23** Regulation of redox equilibrium in colitis and colon cancer by specific accumulation of orally administered redox nanoparticles **24** Maintaining the nitric oxide release by redox injectable hydrogel in myocardial infarction model mice
12:25	**L. Kuck** *Gold Coast*	**25** Mechanical stimulation reduces oxidative damage to erythrocytes due to increased nitric oxide synthase activity
12:40-14:10	**Lunch and Poster Viewing**	
14:10-15:40	**Session 6: Inflammation** *chaired by J. Neuzil and Y. Urano*	
14:10	**B. Rayner** *Sydney*	**26** Therapeutic modulation of the leukocyte inflammatory response in cardiovascular disease
14:30	**Y. Naito** *Kyoto*	**27** Multiple targets of carbon monoxide gas in the intestinal inflammation
15:00	**M. Ichihashi** *Tokyo*	**28** Repigmentation of vitiligo skin by topical use of PAPLAL, platinum and palladium nanoparticle : anti-ROS activity and immune homeostasis
15:20	**Y. Ikeda** *Tsukuba*	**29** Therapeutic improvement in bacterial infection by antioxidative nanoparticle
15:40-16:10	**Coffee Break**	
16:10-18:00	**Session 7: Coenzyme Q10** *chaired by R. Stocker and Y. Yamamoto*	
16:10	**S. Tsuji** *Tokyo*	**30** Identification of *COQ2* gene as a susceptibility gene for multiple system atrophy (MSA), a rare neurodegenerative diseases, and supplementation with a high dose ubiquinol as a phase 2 clinical trial for MSA
16:50	**J. Fujii** *Yamagata*	**31** CoQ10 and ascorbic acid ameliorate reproductive ability of SOD1-deficient female mice
17:10	**A. Ayer**	**32** What regulates the redox-active lipid coenzyme Q?

	Sydney	
17:30	**K. Sakamoto** *Hirosaki*	**33** Identification of three ubiquinone biosynthetic flavin monooxygenases in *Rhodobacter capsulatus*
17:45	**Y. Yamamoto** *Hachioji*	**34** Increased Oxidative Stress and Coenzyme Q10 Deficiency in Centenarians

18:15- **Banquet**

Monday, December 11, 2017 at Fujikyu Highland Resort Hotel, Yamanashi

9:00 **Bus leave from JR Hachioji Station**

13:20 **Short remarks dedicated to Prof. M. Nakano**

13:30-15:30 **Session 8: Redox signaling** *chaired by R. Stocker and T. Akaike*

13:30	**R. Stocker** *Sydney*	**35** Singlet molecular oxygen regulates vascular tone and blood pressure in inflammation
14:10	**S. Fujii** *Sendai*	**36** Reactive persulfide-dependent redox signaling in neuronal cells and its impairment by exposure to electrophiles
14:40	**E. Ledgerwood** *Dunedin*	**37** Regulation of ASK1 activity by peroxiredoxin 1 and thioredoxin
15:10	**T. Sakamoto** *Tokyo*	**38** Hydrogen peroxide produced by superoxide dismutase SOD-2 activates sperm in *Caenorhabditis elegans*

15:30-16:00 **Coffee Break**

16:00-18:05 **Session 9: Mitochondria** *chaired by E. Ledgerwood and H. Imai*

16:00	**J. Neuzil** *Gold Coast*	**39** Mitochondrial targeting of tamoxifen results in selective elimination of senescent cells: Repurposing of an anti-cancer agent
16:40	**T. Akaike** *Sendai*	**40** Cysteine persulfide formation via cysteinyl-tRNA synthetase and its involvement in mitochondrial bioenergetics
17:20	**M. Huang** *Sydney*	**41** Iron and Anti-Oxidant Defense at the Center of Friedreich's Ataxia Pathogenesis
17:35	S. **Chiang** *Sydney*	**42** Frataxin deficiency and alterations in microRNA expression in a mouse model of Friedreich's ataxia
17:40	**H. Black** *Sydney*	**43** The nitroxide 4-methoxyTEMPO inhibits the growth and dissemination of mycobacterial infection in zebrafish through inhibition of host mitochondrial oxidant production and cell death

19:00- **Japanese Dinner**

Tuesday, December 12, 2017 at Fujikyu Highland Resort Hotel, Yamanashi

9:00-11:00	**Session 10: Reactive species** *chaired by M. Davies and Y. Naito*	
9:00	**M. Davies** *Copenhagen*	**44** Characterization of singlet-oxygen induced damage on proteins
9:30	**H. Imai** *Tokyo*	**45** Lipid peroxidation dependent cell death by GPx4 depletion involves differ pathway from ferroptosis
10:00	**O. Handa** *Kyoto*	**46** Acetyl salicylic acid induced small intestinal injury
10:15	**C. Feliciano** *Philippine*	**47** Novel Nanomedicine for Protection against the Late-Effects of Ionizing Radiation
10:30	**C. How** *Taipei*	**48** Chronic DEHP exposure adversely affects aging indicators in *Caenorhabditis elegans* associated with oxidative stress and transcription
10:45	**C. Huang** *Taipei*	**49** Sedimentary exposure of ZnO nanoparticles induces oxidative stress regulated by the transcription factor DAF-16/FOXO in *Caenorhabditis elegans*
11:00-11:30	**Coffee Break**	
11:30-12:30	**Keynote Lecture** *chaired by S. Toyokuni*	
	C. Hawkins *Copenhagen*	**50** Role of thiocyanate in peroxidase-induced damage and inflammation
12:30	**Closing Remarks**	
12:40	**Lunch and Farewell**	

Poster Session: Saturday and Sunday, December 9 and 10, 2017

P01	**R. Shields** *Gold Coast*	Unprecedented Microbial Conversion of Biliverdin into Bilirubin-10-sulfonate
P02	**E. Pennell** *Gold Coast*	A preliminary investigation into the effects of bilirubin ditaurate on in vitro platelet activation and free radical production
P03	**S. Matsugo** *Kanazawa*	R-alpha lipoic acid affects the metabolome of hepatoma cells
P04	**K. Takitani** *Osaka*	Dehydroepiandrosterone prevents lipid peroxidation in vitamin E-deficient rats
P05	**K. Kitatani** *Isehara*	Ebselen ameliorates liver fibrosis-induced by carbon tetrachloride in mice
P06	**S. Kato** *Sendai*	Determination of triacylglycerol oxidation mechanisms in edible oil using liquid chromatography-tandem mass spectrometry
P07	**H. Liao** *Taipei*	Tea seed oil from *Camellia tenuifolia* enhances antioxidant activity and ameliorates Parkinson's disease-like symptoms in *C. elegans disease* model
P08	**K. Takahashi** *Tokyo*	Development of simplified uric acid analog; design, synthesis and antioxidant activity of substituted γ-benzolactams
P09	**M. Mori** *Tokyo*	Fluorogenic substrates selective for pi class glutathione S-transferase and their application to visualization in living cells
P10	**S. Amekura** *Hachioji*	4-Cl-edaravone is the hypochlorous anion specific product of edaravone
P11	**Y. Hayashi** *Hachioji*	Formation of hydrogen peroxide and edaravone trimer from aqueous edaravone and oxygen
P12	**C. Sandoval-Acuña** *Prague*	Mitochondrial targeting of deferoxamine highly increases its anti-cancer activity in breast cancer cells
P13	**V. Tomková** *Prague*	The role of mitochondria in the resistance to tamoxifen
P14	**Y. Ohara** *Nagoya*	Phlebotomy as a preventive measure for crocidolite-induced mesothelioma in rats
P15	**Y. Yamada** *Kyoto*	The effects of heat-treated *Enterococcus faecalis* FK-23 on ROS production and cell viability of human neutrophils
P16	**N. Martin** *Sydney*	The cyclic nitroxide 4-Methoxy TEMPO ameliorates vascular endothelial cell activation induced by the acute phase protein serum amyloid A in cultured endothelial cells and in apolipoportein E deficient mice
P17	**R. Kasalo** *Sydney*	The cyclic nitroxide 4-methoxyTEMPO protects endothelial cells from serum amyloid A (SAA) stimulated dysfunction
P18	**K. Sakamoto** *Hirosaki*	Identification of three ubiquinone biosynthetic flavin monooxygenases in *Rhodobacter capsulatus*
P19	**Y. Horikoshi** *Yonago*	Coenzyme Q10 promotes epithelial cell polarization via PI3K/aPKC signaling cascade
P20	**J. Huo** *Matsumoto*	The reduced form of coenzyme Q10 prevents oxidative stress-induced endothelial cell senescence and dysfunction
P21	**Y. Sato** *Sapporo*	Emulsification using oxa acids for oral administration and the improvement of intestinal absorption of Coenzyme Q10
P22	**K. Sugawara** *Hachioji*	Incorporation of CoQ10 in mouse mitochondrial respiratory supercomplexes
P23	**M. Ogino** *Hachioji*	Decrease in CoQ10 level in Medaka and its oocyte with maturation

P24	**Y. Fujita** *Hachioji*	Prosaposin regulates coenzyme Q10 levels in HepG2 cells, especially those in mitochondria
P25	**S. Abe** *Hachioji*	Growth dependent-increase in CoQ10 levels in HepG2 cells
P26	**J. Blecha** *Prague*	Antioxidant defense determines selectivity of electron transport chain inhibition-induced cell death
P27	**M. Bajzikova** *Prague*	Molecular mechanism of horizontal transfer of mitochondria
P28	**R. JOEL** *México*	Mitochondrial content, oxidative and nitrosative status in human placentas from SGA, LGA AND AGA infants pregnant women
P29	**J. Kovarova** *Prague*	Molecular mechanism of horizontal transfer of mitochondria
P30	**J. Lee** *Yamagata*	Production of ophthalmic acid by the glutathione-synthesizing pathway in mouse hepatocytes under cysteine insufficiency
P31	**K. Yamada** *Fukuoka*	Fluorescence probes to detect lipid-derived radicals
P32	**T. Homma** *Yamagata*	Heterozygous SOD1 deficiency causes male infertility by triggering autoimmune response in mice with the NZW background
P33	**P. San Gabriel** *Sydney*	Amelioration of experimental colitis via cyclic nitroxide inhibition of myeloperoxidase
P34	**K. Miyamoto** *Tokyo*	Therapeutic time-window for edaravone treatment of traumatic brain injury in mice
P35	**C. Wang** *Hachioji*	Increased Oxidative Stress Induced by Burn-Injured Mice from Methicillin-Resistant *Staphylococcus aureus*
P36	**H. Mitsuhashi** *Hachioji*	Increased oxidative stress and tissue oxidative damage in patients with sepsis as measured by plasma antioxidants and lipids
P37	**Y. Kiya** *Hachioji*	Decreased levels of serum uric acid in patients with glaucoma