SCIENTIFIC PROGRAM

Wednesday, September 4th	
15:00 – 17:00	**Registration at Barcelo Hotel**
18:00 – 19:00	**Opening lecture Christine Winterbourn** *Human Peroxidases: Some History and Some New Surprises* (Chair: Christian Obinger)
19:00 – 21:00	**Welcome Reception at the Augustinian Abbey of St. Thomas**

Thursday, September 5th		
07:45 – 08:20	**Registration**	
08:20 – 08:30	**Opening** Christian Obinger and Lukáš Kubala	
08:30 – 10:10	**Session I: Molecular Enzymology** (Chair: Mike Davies & Miklós Geiszt)	
	08:30 – 08:55	**Christian Obinger** *Posttranslational modification of heme – Impact on generation of hypohalous acids*
	08:55 – 09:20	**Prashant Kumar Singh** *Structural basis of activation of mammalian heme peroxidases*
	09:20 – 09:45	**Michael Ashby** *Reverse ordered sequential mechanism of lactoperoxidase-catalyzed oxidation of thiocyanate by hydrogen peroxide*
	09:45 – 10:10	**Jürgen Arnhold** *Modulation of (pseudo)halogenating activity of lactoperoxidase*
10:10 – 10:30	**Coffee Break**	
10:30 – 12:00	**Session II: Biochemistry of oxidation products I** (Chair: Brain Day & Christian Obinger)	
	10:30 – 10:55	**Pierre Van Antwerpen** *Myeloperoxidase-oxidized LDLs: atherogenic particles with pro-inflammatory and pro-resolutive effect*
	10:55 – 11:20	**Wolfgang Sattler & Ernst Malle** *Plasmalogen-derived 2-chlorohexadecanal and 2-chloro-hexadecanoic acid. Effect on human brain microvascular endothelial cells*
	11:20 – 11:40	**Cédric Delporte** *An analytical method for the measurement of nine phosphonucleotides: a case study of the myeloperoxidase-oxidized LDLs (Mox-LDLs) that activate endothelial cells via cGMP/GMP ratio increase*
	11:40 – 12:00	**Catherine Coreman** *Monitoring of apolipoproteins oxidation to improve the estimation of lipoprotein quality in cardiovascular diseases*

12:00 – 13:00	**Lunch**
13:00 – 17:30	**Excursion** *"Macocha abyss, the most known locality of Moravian Karst"*

18:00 – 19:35	**Session III: Biochemistry of oxidation products II** (Chair: William Nauseef & Albert van der Vliet)	
	18:00 – 18:25	**Mike Davies** *Halogenation and oxidation of the extracellular matrix, and its consequences*
	18:25 – 18:45	**Jürgen Prasch** *Production and effects of chlorinated lipid species following ischemic conditions*
	18:45 – 19:10	**Clare Hawkins** *Release of extracellular traps by macrophages under chronic inflammatory conditions*
	19:10 – 19:35	**Mark Hampton** *Regulation of cell death signalling by peroxidase-derived oxidants*

Friday, September 6th		
09:00 – 10:50	**Session IV: Peroxidasin** (Chair: Pierre Van Antwerpen & Mark Hampton)	
	09:00 – 09:25	**Miklós Geiszt** *Characterization of PXDN and PXDNL functions in animal models*
	09:25 – 09:50	**Gautam Bhave** *Animal heme peroxidases in renal diseases*
	09:50 – 10:10	**Benjamin Sevcnikar** *Laminin – A potential binding partner for peroxidasin in the extracellular matrix*
	10:10 – 10:30	**Boushra Bathish** *Peroxidasin activity in the extracellular matrix*
	10:30 – 10:50	**Martina Paumann-Page** *Peroxidasin expression and activity in invasive metastatic melanoma*
10:50 – 11:15	**Coffee Break**	
11:15 – 12:55	**Session V: Host defence** (Chair: Corinne Spickett & Clare Hawkins)	
	11:15 – 11:40	**William Nauseef** Staphylococcus aureus *response to human neutrophil-generated HOCl: a work in progress*
	11:40 – 12:05	**Yasuaki Aratani** *Phagocyte NADPH-oxidase deficiency enhances nonviable* Candida albicans*-induced lung inflammation*
	12:05 – 12:30	**Balázs Rada** *Antimicrobial actions of lactoperoxidase against influenza virus and* Streptococcus pneumoniae
	12:30 – 12:55	**Monika Barath** *Lactoperoxidase – beyond antimicrobial function*
12:55 – 14:10	**Lunch**	
14:10 – 16:10	**Session VI: Physiology and Disease I** (Chair: Gautam Bhave & Flavia Meotti)	
	14:10 – 14:35	**Imran Rashid** *Targeting myeloperoxidase to detect and inhibit vascular inflammation in atherothrombotic disease*

	14:35 – 15:00	**Martin Mollenhauer** *Myeloperoxidase mediates monocyte- and macrophage recruitment and activation during myocardial ischemia*
	15:00 – 15:25	**Brian Day** *Novel approach to create antioxidants that supplement innate immunity in cystic fibrosis lung disease*
	15:20 – 15:40	**Dennis Mehrkens** *Myeloperoxidase deficiency attenuates thoracic aneurysm formation*
15:40 – 16:00	**Coffee Break**	
16:00 – 16:45	**Poster Session**	
16:45 – 18:25	**Session VII: Physiology and Disease II** (Chair: Jürgen Arnhold & Lukáš Kubala)	
	16:45 – 17:10	**Flavia Meotti** *Oxidation of uric acid by myeloperoxidase in inflammation and the consequences in infection and cardiovascular disease*
	17:10 – 17:35	**Alexey Sokolov** *Study of myeloperoxidase interactions with ceruloplasmin and blood coagulation factor VIII*
	17:35 – 18:00	**Jan Vitecek** *The interaction of myeloperoxidase with endothelial glycocalyx and its effect on endothelial function*
	18:00 – 18:25	**Albert van der Vliet** *Combined actions of DUOX1 and mitochondria in innate epithelial injury responses and type 2 inflammation. Implications for allergic asthma and metabolic disease*
19:00 – 23:00	**Conference Dinner**	

Saturday, September, 7th		
09:00 – 10:40	**Session VIII: Biochemistry of oxidation products III** (Chair: Monika Barath & Dennis Mehrkens)	
	09:00 – 09:25	**Corinne Spickett** *Effect of hypochlorous acid on the structure and activity of the phosphatase PTEN*
	09:25 – 09:50	**Luke Gamon** *Iodide modulates oxidative damage to extracellular matrix proteins induced by myeloperoxidase*
	09:50 – 10:15	**Valeriia Kostevich** *Oxidation of cysteine by labile copper ions contained in ceruloplasmin or human serum albumin leads to formation of hydrogen peroxide, which can be utilized by myeloperoxidase*
10:15 – 10:45	**Coffee Break**	
10:45 – 12:50	**Session IX: Inhibitor design** (Chair: Imran Rashid & Martin Mollenhauer)	
	10:45 – 11:10	**Brian Geisbrecht** *Design of novel peroxidase inhibitory protein with broad target specificity*
	11:10 – 11:35	**Kazuo Suzuki** *New drug innovation: a recombinant single-chain fragment variable region, VasSF, for MPO-ANCA-associated vasculitis*
	11:35 – 12:00	**Tej Singh** *Partial inhibition of lactoperoxidase by antithyroid drug propyl thiouracil: structural and binding studies*
	12:00 – 12:25	**Isaac Araujo Matos** *Identification of new myeloperoxidase inhibitors with nanomolar potency using validated virtual screening methodology*
12:25-14:00	**Lunch**	
14:00	**Closing and Depatrure**	

Nr	Name	Posters
1	**Kellye Cupp-Sutton**	*A new mechanism for the lactoperoxidase-catalyzed oxidation of thiocyanate and selenocyanate by hydrogen peroxide*
2	**Alexey Sokolov**	*Activated neutrophils producting HOCl are revealed using celestine blue B by flow cytometry and confocal microscopy*
3	**Alexey Sokolov**	*Monoclonal antibody against myeloperoxidase with electrostatic principle of interaction as approach for immunoassay and reversible sorption of the enzyme*
4	**Anna Kocurková**	*Myeloperoxidase activity is crucial for phosphatidylserine exposure on surface of mouse phagocytes after different stimuli*
5	**Valeriia Kostevich**	*Obtaining of monoclonal antibody against HOCl-modified human serum albumin and its effects on functional response of neutrophil*
6	**Litiele Cezar da Cruz**	*Oxidation of peroxiredoxin 1 by urate hydroperoxide in endothelial vascular cells*
7	**Stefan Hofbauer**	*Role of H98Y variant of human myoglobin in Myoglobinopathy*
8	**Marcel Zamocky**	*Phylogenomics data mining within genomes for undiscovered members of the peroxidase-cyclooxygenase superfamily enhances the knowledge on human peroxidases*
9	**Clare Hawkins**	*Impact of myeloperoxidase-derived oxidants on vascular smooth muscle cell damage and death in atherosclerosis*
10	**Lukáš Kubala**	*Identification of proteins interacting with myeloperoxidase during endothelial cell transcytosis*
11	**Paul G. Furtmüller**	*Interactions of hydrogen sulfide with myeloperoxidase in the presence of hydrogen peroxide and oxygen*