

Scientific and Social Programs

Thursday May 31st

- 17:00-18:00 Welcome Reception in *Willard Foyer*
- 18:00-19:00 **Keynote lecture:** Professor Roderick Flower, FRS
"Is Sex Better than Inflammation?"
Introduced by Yung Wu, CEO of MaRS Discovery District

Friday June 1st

From 07:00 Breakfast *Proof Bar and Sky Lounge*

08:15-08:25 John Wallace
Opening Remarks

Session 1

Chairs: Lily Wu (CANADA) & Marcelo Muscara (BRAZIL)

08:25-08:50 **Plenary Lecture:** Hideo Kimura (JAPAN)
"Hydrogen sulfide (H₂S) and polysulfides (H₂S_n) signaling through persulfuration of target proteins"

08:50-09:15 John Matson (USA)
"Chemical tools for delivery of H₂S and related species: small molecules, polymers and hydrogels"

09:15-09:40 Chris Kevil (USA)
"Differential sulfide metabolite regulation of xanthine oxidase: role in vascular remodeling"

09:40-10:00 Ingrid Fleming (GERMANY)
"Control and consequences of endothelial cells cystathione gamma lyase"

10:00-10:15 Bindu Paul (USA)
"Golgi stress response stimulates cysteine and hydrogen sulfide metabolism to confer cytoprotection in Huntington's Disease"

10:15-10:35 Coffee/Tea Break

Session 2

Chairs: Prof. Ingrid Fleming (GERMANY) & Matthew Whiteman (UK)

10:35-11:00 Ruma Banerjee (USA)
"Metabolic re-programming by H₂S"

11:00-11:25 Marcelo Muscara (BRAZIL)
"H₂S and skin diseases"

11:25-11:50 Rosamaria Bucci (ITALY)
"Role of H₂S signaling in human skeletal muscle syndrome malignant hyperthermia"

11:50-12:05 Sofia-Iris Bibli (GERMANY)
"Cystathionine gamma lyase inhibits endothelial cell senescence via sulfhydration of peroxiredoxins"

12:05-13:15 Lunch *Proof Bar and Sky Lounge*

- Session 3 *Chairs: Prof. Ruma Banerjee (USA) & Giuseppe Cirino (ITALY)*
- 13:15-13:40 Peter Nagy (HUNGARY)
“Speciation of reactive sulfur species: do we have any clue about what’s inside the cell?”
- 13:40-14:05 Matthew Whiteman (UK)
“Mitochondria-targeted sulfide delivery molecules”
- 14:05-14:20 Marcin Magierowski (POLAND)
“Possible involvement of hydrogen sulfide in prevention of Barrett’s esophagus development”
- 14:20-14:35 Dorottya Garai (HUNGARY)
“Interactions of hydrogen sulfide with neutrophil granulocyte functions”
- 14:35-14:55 **Coffee/Tea Break**

- Session 4 *Chairs: Angela Ianaro (ITALY) and David Lefer (USA)*
- 14:55-15:20 **Plenary Lecture:** David Lefer (USA)
“Novel insights into hydrogen sulfide-mediated cardioprotective signaling”
- 15:20-15:45 John L. Wallace (CANADA)
“H₂S-releasing NSAIDs: Proof-of-concept human studies”
- 15:45-16:00 Jin-Song Biang (SINGAPORE)
“Therapeutic potential of hydrogen sulfide in cisplatin nephrotoxicity: towards a new management strategy for cancer therapy adverse effects”
- 16:00-16:15 Guangdong Yang (CANADA)
“The role of cystathionine gamma-lyase/H₂S system in aortic aneurysms”
- 16:15-16:30 Roberta Torregrossa (UK)
“Evaluation of two novel mitochondria-targeted H₂S donor compounds (RT01 and RTP-10) in hyperglycemia-induced microvascular endothelial dysfunction”
- 16:30-18:30 **Poster Session One (Barclay 1 & 2)**
- (end of session – free evening)

Saturday June 2nd **From 07:00** **Breakfast** *Proof Bar and Sky Lounge*

- Session 5 *Chairs: Soraia Costa (BRAZIL) and Jay Mitchell (USA)*
- 08:30-08:55 **Plenary Lecture:** Rui Wang (CANADA)
“Guessing gas? – channel, receptor, sensor and measure”
- 08:55-09:20 Alp Sener (CANADA)
“H₂S: An adjunct to surgical intervention in transplantation”
- 09:20-09:45 Michael Pluth (USA)
“Chemical tools for delivery of reactive sulfur species”
- 09:45-10:10 Angela Ianaro (ITALY)
“Hydrogen sulfide in human melanoma: Mechanisms and an emerging paradigm”
- 10:10-10:30** **Coffee/Tea Break**

- Session 6 *Chairs: Alma Martelli (ITALY) and Harry Van Goor (NETHERLANDS)*
- 10:30-10:55 Lily Wu (CANADA)
 "H₂S, estrogen and vascular smooth muscle cell proliferation"
- 10:55-11:20 Martin Feelisch (UK)
 "The reactive species interactome in action: Insights from mice and men"
- 11:20-11:35 Tomasz Brzozowski (POLAND)
 "Gastroprotective effect of endogenous gaseous mediators against ischemia/reperfusion-induced gastric damage"
- 11:35-11:50 Smriti Juriasingani (CANADA)
 "Ex vivo subnormothermic machine perfusion at 21°C with H₂S-supplemented blood improves the outcomes of DCD renal grafts"
- 11:50-12:05 Erica Pinter (HUNGARY)
 "Antinociceptive and anti-inflammatory effects of sulfides can be mediated by TRPA1 and SST4 receptors"
- 12:05-13:15 Lunch Proof Bar and Sky Lounge**
- Session 7 *Chairs: Gabriela da Silva (PORTUGAL) and Gilberto de Nucci (BRAZIL)*
- 13:15-13:40 Yi Zhun Zhu (MACAU)
 "H₂S: a magic gas for inflammation and immune response"
- 13:40-14:05 Jay Mitchell (USA)
 "H₂S in aging and vascular function"
- 14:05-14:20 Andrea Steiger (USA)
 "Self-immolative thiocarbamates for studying carbonyl sulfide and hydrogen sulfide chemical biology"
- 14:20-14:35 Florent Allagnat (FRANCE)
 "Hydrogen sulfide limits the development of intimal hyperplasia in human vein segments"
- 14:35-15:05 Coffee/Tea Break**
- Session 8 *Chairs: Adele Snowman (USA) and Peter Nagy (HUNGARY)*
- 15:05-15:30 **Plenary Lecture: Giuseppe Cirino (ITALY)**
 "H₂S and control of vascular function"
- 15:30-15:55 Andre Buret (CANADA)
 "Iron-dependent pathobiont release from microbiota biofilms in IBD: from mechanism to a new H₂S-releasing therapy"
- 16:55-16:20 Frederic Bouillard (FRANCE)
 "Hydrogen sulfide challenge, first in line: sulfide quinone reductase"
- 16:20-16:35 Éva Dóka (HUNGARY)
 "Thioredoxin system-mediated protective functions of protein polysulfidation under oxidative stress"
- 16:35-18:30 **Poster Session Two** – Barclay 1 & 2
- 18:30-19:15 **Reception followed by Conference Dinner (Willard Room)**

Sunday June 3rd

From 07:00 Breakfast Proof Bar and Sky Lounge

- Session 9
Chairs: Rosamaria Bucci (ITALY) & Frederic Bouillard (FRANCE)
- 08:30-08:55 **Plenary Lecture: Csaba Szabo (SWITZERLAND)**
"H₂S in cancer: what we know and what we don't know"
- 08:55-09:20 Kenjiro Hanaoka (JAPAN)
"Development of fluorescent probes for reactive sulfur species and their applications"
- 09:20-09:45 Katalin Modis (USA)
"3-mercaptopyruvate sulfurtransferase supports bioenergetics and angiogenesis in endothelial cells"
- 09:45-10:10 Yanxi Pei (CHINA)
"The crosstalk between H₂S and calcium signaling in plant's defense against chromium stress"
- 10:10-10:25 Alma Martelli (ITALY)
*"Vascular effects of erucin, an isothiocyanate with feature of H₂S-donor, derived from *Eruca sativa* Mill. (arugula)"*

10:25-10:45 Coffee Break

- Session 10
Chairs: Rui Wang (CANADA) & Changqui Xu (CHINA)
- 10:45-11:10 Andreas Papapetropoulos (GREECE)
"CSE vs 3-MST: redundant or divergent roles in physiology and pathophysiology?"
- 11:10-11:25 Zhang Weihua (CHINA)
"Endogenous H₂S switches cardiac energy substrate metabolism by regulating SIRT3 expression in DB/DB mice"
- 11:25-11:40 Harry Van Goor (NETHERLANDS)
"Thiosulfate as a movable biomarker in various diseases"
- 11:40-11:55 Presentation of trainee poster prizes

Announcement of location of 6th World Congress on
Hydrogen Sulfide in Biology & Medicine

Close of conference

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