



UNIVERSITÀ DEGLI STUDI DI NAPOLI
FEDERICO II

4th INTERNATIONAL CONFERENCE ON THE BIOLOGY OF HYDROGEN SULFIDE

Naples (Italy), June 3-5, 2016



Organized by
DEPARTMENT OF PHARMACY
FEDERICO II UNIVERSITY OF NAPLES

Promoted by



FONDAZIONE
INTERNAZIONALE
MENARINI

FINAL PROGRAM

Centro Conferenze Federico II Università di Napoli
(Aula Magna - Via Partenope, 36)



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Dear Colleagues,

It has been a privilege for me to organize the “4th International Conference on the Biology of Hydrogen Sulfide”. The last three Conferences were held in Shanghai, Atlanta and Kyoto with considerable success. I hope to keep up with this tradition making the 2016 conference an exciting forum for information exchange, debate and collaboration on H₂S research.

As we all know, the field of H₂S is growing rapidly and this meeting has always been an important opportunity to meet and keep us all updated with the new developments in the basic and translational efforts in the field.

The scientific program features a variety of topics related to chemistry, physiology, pathophysiology and pharmacology of H₂S, including a session on translational aspects of H₂S biology.

A specific effort has been made in order to promote the participation of young scientists, PhD and Post-doc. The abstract selected will be presented as oral communication and a special section has been dedicated to young scientists in collaboration with the “European Network on Gasotransmitters”.

I welcome you in Naples and I hope you will enjoy the meeting and the city. With warm regards,

*Prof. Giuseppe Cirino
President of the Meeting*

Under the Auspices of
SIF – Società Italiana di Farmacologia



President of the Meeting
Prof. Giuseppe Cirino
Department of Pharmacy, Federico II University of Naples, Italy

Honorary President of the Meeting
Prof. Louis J. Ignarro
Department of Molecular and Medical Pharmacology, University of
California, Los Angeles, USA

Local Organizing Committee
Prof. Vincenzo Brancaleone
Prof. Maria Rosaria Bucci
Prof. Roberta D'Emmanuele
Prof. Angela Ianaro
Prof. Fiorentina Roviezzo
Prof. Raffaella Sorrentino

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Friday, June 3, 2016

- 09.00 a.m. Registration
- 02.00 p.m. – 02.20 p.m. *Inaugural Ceremony*
- 02.20 p.m. – 03.15 p.m. Opening lecture introduced by
Ignarro L. J. (Los Angeles, USA)
Lefer D. J. (New Orleans, USA)
Development of novel hydrogen sulfide
therapeutics for translation to the clinic
- 03.15 p.m. – 03.45 p.m. **Salloum F. N.** (Richmond, USA)
Preventing myocardial ischemia-reperfusion injury
and failure with hydrogen sulfide
- 03.45 p.m. – 04.00 p.m. *Coffee break*
- Chairpersons: **Kimura H.** (Tokyo, J)
Nagy P. (Budapest, H)
- 04.00 p.m. – 04.30 p.m. **Banerjee R.** (Ann Arbor, USA)
Sulfide biogenesis and oxidation
- 04.30 p.m. – 05.00 p.m. **Papapetropoulos A.** (Athens, GR)
Sources, targets and pathways: an update of
hydrogen sulfide signaling
- 05.00 p.m. – 05.30 p.m. **Van Goor H.** (Groningen, NL)
Free thiols and gaseous signaling molecules in
health and disease

Official dinner

Saturday, June 4, 2016 – Morning

- Chairpersons: **Banerjee R.** (Ann Arbor, USA)
Pfeilschifter J. (Frankfurt, D)
- 09.00 a.m. – 09.30 a.m. **Kimura H.** (Tokyo, J)
Production and functions of hydrogen sulfide and hydrogen polysulfide
- 09.30 a.m. – 10.00 a.m. **Fukuto J.** (Rohnert Park, USA)
The chemical biology of hydropersulfides
- 10.00 a.m. – 10.30 a.m. **Feelisch M.** (Southampton, UK)
Well beyond a simple ‘Cross-Talk’ story: on the unique position of reactive sulfur species in the redox metabolome
- 10.30 a.m. – 11.00 a.m. **Nagy P.** (Budapest, H)
Insights into the molecular pathways of persulfide-mediated redox signaling
- 11.00 a.m. – 11.15 a.m. *Coffee break*
- Chairpersons: **Fukuto J.** (Tokyo, J)
Feelisch M. (Southampton, UK)
- 11.15 a.m. – 11.45 a.m. **Wallace J. L.** (Hamilton, CDN)
H₂S -Based anti-inflammatory drugs: lost and found in translation
- 11.45 a.m. – 12.15 p.m. **Whiteman M.** (Exeter, UK)
Mitochondrial H₂S: a viable therapeutic opportunity?
- 12.15 p.m. – 12.45 p.m. **Pluth M.** (Eugene, USA)
Synthetic H₂S donors with defined release mechanisms and tunable release rates
- 12.45 p.m. – 02.00 p.m. *Buffet lunch*

Saturday, June 4, 2016 – Afternoon

02.00 p.m. – 04.00 p.m. **POSTER SESSION**

Chairpersons: **Lefer D. J.** (New Orleans, USA)
Van Goor H. (Groningen, NL)

04.00 p.m. – 04.30 p.m. **Wang R.** (Ontario, CDN)
Hydrogen sulfide and asthma

04.30 p.m. – 04.45 p.m. **Casola A.** (Galveston, USA)
Hydrogen sulfide: antiviral and anti-inflammatory
in the airways. Role in respiratory syncytial virus
infection

04.45 p.m. – 05.00 p.m. **Palinkas Z.** (Budapest, H)
Reduction of highly oxidizing heme redox
intermediates by H₂S and its possible
contributions to the antioxidant actions of H₂S

05.00 p.m. – 05.15 p.m. *Coffee break*

Chairpersons: **Szabo C.** (Galveston, USA)
Bouillaud F. (Paris, F)

05.15 p.m. – 05.30 p.m. **Saini V.** (Birmingham, USA)
Hydrogen sulfide regulates mycobacterium
tuberculosis bioenergetics and progression of
tuberculosis disease

05.30 p.m. – 05.45 p.m. **Greco V.** (Rome, I)
Hydrogen sulfide as a new player of amyotrophic
lateral sclerosis

05.45 p.m. – 06.00 p.m. **Paul B. D.** (Baltimore, USA)
Dysregulated ATF4 regulation and imbalanced
redox homeostasis caused by cysteine stress
mediates neurodegeneration in Huntington's
disease

Sunday, June 5, 2016 – Morning

- Chairpersons: **Wallace J. L.** (Hamilton, CDN)
Wang R. (Ontario, CDN)
- 09.00 a.m. – 09.30 a.m. **Kevil C.** (Shreveport, USA)
Endogenous sulfide regulation of arterial vascular remodeling
- 09.30 a.m. – 10.00 a.m. **Mitchell J.** (Harvard, USA)
Nutrient restriction triggers angiogenesis via regulation of endogenous H₂S production
- 10.00 a.m. – 10.15 a.m. **Chatzianastasiou A.** (Athens, GR)
Protection against ischemia/reperfusion injury by H₂S donors: the role of mitochondria
- 10.15 a.m. – 10.30 a.m. **Miao L.** (Shanghai, CN)
Hydrogen sulfide mitigates myocardial infarction via promotion of mitochondrial biogenesis-dependent M2 Polarization of macrophages
- 10.30 a.m. – 10.45 a.m. **Karwi Q.** (Cardiff, UK)
Molecular mechanism of H₂S induced cardioprotection
- 10.45 a.m. – 11.00 a.m. *Coffee break*

Sunday, June 5, 2016 – Morning

- Chairpersons: **Whiteman M.** (Exeter, UK)
 Kevil C. (Shreveport, USA)
- 11.00 a.m. – 11.30 a.m. **Szabo C.** (Galveston, USA)
Hydrogen sulfide and cancer: pathomechanisms
and therapeutic opportunities
- 11.30 a.m. – 12.00 p.m. **Ianaro A.** (Naples, I)
Involvement of hydrogen sulfide pathway in
human melanoma development and progression
- 12.00 p.m. – 12.30 p.m. **Fiorucci S.** (Perugia, I)
Targeting the bile acid activated receptors
gaseous-transmitter axes in the splanchnic and
systemic circulation in the treatment of liver and
metabolic disorders
- 12.30 p.m. – 02.00 p.m. *Buffet lunch*

Sunday, June 5, 2016 – Afternoon

Session co-organized by the “European Network on Gasotransmitters” (BM1005)

Chairpersons: **Papapetropoulos A.** (Athens, GR)
Bian J. S. (Singapore, SGP)

02.00 p.m. – 02.15 p.m. **Martelli A.** (Pisa, I)
Vascular Effects of p-Carboxyphenyl-
Isothiocyanate, a novel H₂S-donor

02.15 p.m. – 02.30 p.m. **Bouillaud F.** (Paris, F)
The activity of the sulfide oxidation pathway fine-
tunes cellular affinity for oxygen

02.30 p.m. – 02.45 p.m. **Bian J. S.** (Singapore, SGP)
Hydrogen sulfide inhibits RAGE toxicity through
reducing the dimer formation

02.45 p.m. – 03.00 p.m. **Szczesny B.** (Galveston, USA)
Inhibition of H₂S biosynthesis sensitizes lung
adenocarcinoma cells to genotoxic agents

03.00 p.m. – 03.15 p.m. **Cao X.** (Singapore, SGP)
Hydrogen sulfide attenuates cisplatin-induced
nephrotoxicity without compromising its anti-
cancer benefit

03.15 p.m. – 03.30 p.m. **Giuffrè A.** (Rome, I)
Sulfide-resistant bacterial Respiration: a new role
for cytochrome bd oxidase

- 03.30 p.m. – 03.45 p.m. **Lobb I.** (Richmond, CDN)
Mitochondrial-targeted hydrogen sulfide release by AP39 improves renal graft function and survival following prolonged cold storage and transplantation and protects renal epithelial cells from in vitro cold hypoxia/hypercapnia and re-oxygenation injury
- 03.45 p.m. – 04.00 p.m. **Corvino A.** (Naples, I)
Design and synthesis of non covalent CSE inhibitors evaluated by hybrid methods
- 04.00 p.m. – 04.15 p.m. **Longen S.** (Frankfurt, D)
A proteomic approach for the identification of persulfides in mammalian cells
- 04.15 p.m. *Concluding Remarks*

GENERAL INFORMATION

Meeting venue

The Meeting will take place at Aula Magna - Centro Conferenze Federico II
Università di Napoli - Via Partenope 36, 80121 Naples (Italy)
Phone: +39 081 2535706 / 081 2537395 - Fax: +39 081 2535729

Registration hours

Opening hours:

Friday, June 3rd: 08.00 a.m. to 05.30 p.m.

Saturday, June 4th: 08.00 a.m. to 06.00 p.m.

Sunday, June 5th: 08.00 a.m. to 04.15 p.m.

Official language

The official language of the Meeting will be English. Simultaneous translation will not be provided.

Technical facilities

A Slide center with pcs (Windows and Macintosh operating systems) will be available for Speakers to preview and finalize their presentations.

Speakers are kindly requested to submit their presentations on USB flash drive to the Slide center technicians at least one hour before their talks.

Slide Centre opening hours:

Friday, June 3rd: 08.00 a.m. to 05.30 p.m.

Saturday, June 4th: 08.00 a.m. to 06.00 p.m.

Sunday, June 5th: 08.00 a.m. to 04.15 p.m.

Lunches and coffee breaks

Lunches and coffee breaks will be provided within the conference premises.

Abstracts book

Participants will receive the Abstracts Book at the conference.

Attendance certificate

Certificate of attendance will be issued at the registration desk following full attendance of the meeting.

LIST OF SPEAKERS, DISCUSSANTS, CHAIRPERSONS AND CO-PRESIDENTS OF THE MEETING

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