



Venue

German Heart Center Munich
at the TU Munich
Lazarettstr. 36
80636 Munich
www.dhm.mhn.de

Organizer

Agnes Görlach
Experimental and Molecular
Pediatric Cardiology
German Heart Center Munich
goerlach@dhm.mhn.de

Organizing Committee

Andreas Daiber, Mainz, **Germany**
Fabio Di Lisa, Padova, **Italy**
Yves-Michel Frapart, Paris, **France**
Pietro Ghezzi, Brighton, **UK**
Vincent Jaquet, Geneva, **Switzerland**
Ulla Knaus, Dublin, **Ireland**
Tamara Seredenina, Geneva, **Switzerland**

Local Organizer

Dr. Andreas Petry
petry@dhm.mhn.de
P: +49 89 12 18 27 06

Katharina Bertram
reger@dhm.mhn.de
P: +49 89 12 18 27 01

FIRST INTERNATIONAL MUNICH ROS MEETING GERMAN HEART CENTER MUNICH APRIL 21ST-24TH, 2015

Confirmed speakers

Elias Arner, Stockholm, **Sweden**
Vsevolod Belousov, Moscow, **Russia**
Marco Bianchi, Milan, **Italy**
Serge Bottari, Grenoble, **France**
Thomas Carell, Munich, **Germany**
Leon de Windt, Maastricht, **Netherlands**
Menno de Winther, Amsterdam, **Netherlands**
Jozef Dulak, Krakov, **Poland**
Martyna Elas, Krakov, **Poland**
Jamel El Benna, Paris, **France**
Carlo Gaetano, Frankfurt, **Germany**
Philippe Garteiser, Paris, **France**
Joachim Gerhold, Tartu, **Estonia**
Helen Griffiths, Birmingham, **UK**
Tomaz Guzik, Glasgow, **UK**
Karl-Heinz Krause, Geneva, **Switzerland**
Santiago Lamas, Madrid, **Spain**
Huige Li, Mainz, **Germany**
Robert Loewe, Munich, **Germany**
Adrian Manea, Bucharest, **Romania**
Andrea Mattevi, Padova, **Italy**
Thomas Misgeld, Munich, **Germany**
Milos Mojovic, Belgrade, **Serbia**
Lisa Mullen, Brighton, **UK**
Sandra Peiro, Barcelona, **Spain**
Silvia Pastorekova, Bratislava, **Slovakia**
Lorenz Poellinger, Stockholm, **Sweden**
Monika Puzianowska, Warsaw, **Poland**
Karine Roget, Rouen, **France**
Adelina Rogowska-Wrzesinska, Odense, **Denmark**
Roberto Sitia, Milan, **Italy**
Rainer Schulz, Giessen, **Germany**
Višnja Stepanić, Zagreb, **Croatia**
Kostas Tokatlidis, Glasgow, **UK**
Fredrik Wallner, Göteborg, **Sweden**
Per Wikström, Stockholm, **Sweden**
Jacek Zielonka, Milwaukee, WI, **USA**



FIRST INTERNATIONAL MUNICH ROS MEETING GERMAN HEART CENTER MUNICH PROGRAM

Tuesday, April 21st

15.30–19.00 Registration

EU-ROS Management Committee Meeting

Wednesday, April 22nd

08.30–08.45 Welcome

Session 1A: Sources of ROS in physiology and disease -I

- 08.45–09.10 Novel tools for H2O2 imaging and modulation Vsevolod Belousov, Moscow, **Russia**
09.10–09.35 Protein oxidation controlled by LOXL2 regulates gene transcription Sandra Peiro, Barcelona, **Spain**
09.35–10.00 Oxidative protein folding and H2O2 signaling
in the mitochondrial intermembrane space Kostas Tokatlidis, Glasgow, **UK**
10.00–10.25 Redoximirs and fibrosis: the case of miR-433 Santiago Lamas, Madrid, **Spain**

10.25–11.00 COFFEE BREAK

Session 1B: Sources of ROS in physiology and disease -II

- 11.00–11.25 Priming and Activation of the phagocyte NADPH oxidase NOX2:
Regulation by p47phox phosphorylation Jamel El Benna, **Paris, France**
11.25–11.50 Human monocytes and macrophages express NOX 5;
a potential source of reactive oxygen species in atherosclerosis Adrian Manea, Bucharest, **Romania**
11.50–12.15 Oncogene driven ROS in tumour cell survival Tom Cotter, Cork, **Ireland**

12.15–13.45 Lunch Break and Poster Viewing

Session 2: ROS as drug targets

- 13.45–14.10 Selected attributes of polyphenols in targeting oxidative stress in cancer Visna Stepanic, Zagreb, **Croatia**
14.10–14.35 Prospects of targeting the selenoprotein thioredoxin reductase 1
for anticancer drug therapy Elias Arner, Stockholm, **Sweden**
14.35–15.00 Identification and characterization of novel small-molecule NOX inhibitors Per Wikström, Stockholm, **Sweden**
15.00–15.25 Targeting NADPH oxidases:
New assays for high throughput screening of Nox2 inhibitors Jacek Zielonka, Milwaukee, WI, **USA**

15.25–16.00 Coffee Break

Session 3: ROS and biomarkers

- 16.00–16.25 Protein and lipid based redox biomarkers in cardiovascular and metabolic diseases Helen Griffiths, Birmingham, **UK**
16.25–16.50 Nitroalbumin as a clinically useful marker of nitro-oxidative stress Serge Bottari, Grenoble, **France**
16.50–17.15 The redox secretome of inflammatory cells Lisa Mullen, Brighton, **UK**
17.15–17.40 Detection of post-translational modification by MS Adelina Rogowska-Wrzesinska, Odense, **Denmark**
17.40–18.05 Biomarkers- from the lab to clinical validation Karine Roget, Biosims, Rouen, **France**

Session 4: ROS in translation: From bench to industry

- 18.05–18.30 TBA Robert Loewe, Genewake, Munich, **Germany**
18.30–18.55 TBA Fredrik Wallner, Redoxis, Göteborg, **Sweden**
18.55–19.20 Gaseous transmitters – major achievements Andreas Papapetropoulos, Athens, **Greece**

Thursday, April 23rd

Session 5: Mitochondria and ROS: mechanisms and disease

- 08.45–09.10 Mitochondrial DNA maintenance: more than “just” replication?
Investigating mitochondrial nucleoid and network dynamics in health and disease Joachim Gerhold, Tartu, **Estonia**
09.10–09.35 Imaging mitochondria and mitochondrial ROS in vivo:
The nervous system as a example Thomas Misgeld, Munich, **Germany**
09.35–10.00 ROS, Ca2+ and mitochondrial dysfunction in cardiac injury Fabio di Lisa, Padova, **Italy**
10.00–10.25 Mitochondrial ROS in ischemia-reperfusion injury and protection from it! Rainer Schulz, Giessen, **Germany**

10.25–11.00 Coffee Break

Session 6: Molecular mechanisms and targets of ROS

- 11.00–11.25 Oxidant sensing and signaling by protein thiols in the cardiovascular system Philip Eaton, London, **UK**
11.25–11.50 Interactions between oxidative stress and inflammation in human vasculature Tomaz Guzik, Glasgow, **UK**
11.50–12.15 Redox switches and hypertension Andreas Daiber, Mainz, **Germany**
12.15–12.40 NOX family NADPH oxidases: from pathophysiology to drug development Karl-Heinz Krause, Geneva, **Switzerland**

12.40–14.30 Lunch Break and Poster Viewing

APRIL 21ST–24TH, 2015

FIRST INTERNATIONAL MUNICH ROS MEETING GERMAN HEART CENTER MUNICH PROGRAM

Session 7A: DZHK Symposium – Redox stress and epigenetics in cardiovascular diseases

14.30–14.55	DNA bases beyond Watson and Crick	Thomas Carell, Munich, Germany
14.55–15.20	Mechanisms of oxidative histone demethylation and nucleosome recognition by histone demethylases	Andrea Mattevi, Padova, Italy
15.20–15.45	TBA	Lorenz Poellinger, Stockholm, Sweden
15.45–16.10	Skeletal muscle and vessel regeneration: heme oxygenase-1 and microRNAs cross-talk	Jozef Dulak, Krakov, Poland
16.10–16.40	Coffee Break	

Session 7B: DZHK Symposium – Redox stress and epigenetics in cardiovascular diseases

16.40–17.05	ROS-dependent epigenetic alterations in dystrophic cardiomyocytes: Consequences for gene expression and function	Carlo Gaetano, Frankfurt, Germany
17.05–17.30	TBA	Menno de Winter, Amsterdam, Netherlands
17.30–17.55	miR-148a: a balancing act between compensated and decompensated cardiac hypertrophy	Leon de Windt, Maastricht, Netherlands
17.55–18.20	Maternal treatment as an epigenetic therapy for hypertension	Huige Li, Mainz, Germany
18.20–18.45	Molecular mechanisms of aging. The role of redox balance	Monika Puzianowska, Warsaw, Poland
19.30	Social Dinner	

Friday, April 24th

Session 8: ROS signaling and cancer

08.45–09.15	Regulation of H ₂ O ₂ transport across membranes, organelles and cells	Roberto Sitia, Milan, Italy
09.15–09.40	HMGB1 redox states in the repair of damaged muscle and the development of cancer tissue	Marco Bianchi, Milan, Italy
09.40–10.05	Hypoxia-induced carbonic anhydrase IX: a key player in pH regulation and adaptive responses to tumor acidosis	Silvia Pastorekova, Bratislava, Slovakia
10.05–10.30	Acidosis controls functional properties of tumor cells and tumor associated cells: role of ROS in signal transduction	Oliver Thews, Halle, Germany
10.30–10.55	TBA	N.N.
10.55–11.30	Coffee Break	

Session 9: ROS Imaging

11.30–11.55	EPR en route to imaging and clinical application	Yves Frapart, Paris, France
11.55–12.20	Electron paramagnetic resonance imaging of oxidative stress in vivo	Martyna Elas, Krakov, Poland
12.20–12.45	MR imaging of biomarkers in inflammation	Philippe Garteiser, Paris, France
12.45–13.10	How to use aminoxyl radicals to examine BBB permeability in ALS rats	Milos Mojovic, Belgrade, Serbia
13.10–13.30	Redox Biology Training Course	Antonio Cuadrado, Madrid, Spain
13.30	Farewell	

MEETING
GERMAN HEART CENTER
MUNICH
APRIL 21ST–24TH, 2015

Registration and abstract submission

Welcome

The 1st International Munich ROS Meeting aims to bring together interdisciplinary experts in the field of ROS biology to discuss the following topics:

*Sources of ROS in physiology and disease
ROS pathways: molecular mechanisms and targets
ROS imaging
ROS biomarkers and diagnostics
ROS as drug targets*

The 1st International Munich ROS Meeting hosts the Annual Meeting of the EU COST action EU-ROS. It joins with meetings of the networks EPIROS (Epigenetics and redox stress) and Acidox (Tumor acidosis and redox stress) funded by the German Ministry of Science and Research (BMBF), and is supported by the German center for cardiovascular research (DZHK).

The meeting will take place at the German Heart Centre Munich of the State of Bavaria and the Technical University Munich, the first heart centre founded in Europe, conveniently located in the centre of Munich.

You are thus cordially invited to participate in this interdisciplinary meeting and discuss your science with internationally renowned experts.

Agnes Görlach, German Heart Centre Munich

Abstracts to be included in the poster sessions must be submitted until **April 10th, 2015**

either via **www.dzhk.de**
or via e-mail to **petry@dhm.mhn.de**

Please register until **April 15th, 2015**
via

www.dzhk.de
or via e-mail to **petry@dhm.mhn.de**.

Members of YOUNG-DZHK are eligible for reimbursement of travel costs by DZHK.

For more information on the COST action EU-ROS please visit **www.eu-ros.eu**.



Preliminary Program

April 21st
15.30–19.00h Registration
16.00–19.00h EU-ROS MC Meeting

April 22nd
08.00–19.00 h Registration
08.45–10.30 h Sources of ROS I
10.30–11.00 h Coffee Break
11.00–12.15 h Sources of ROS II
12.15–13.45 h Lunch Break and Posters
13.45–15.30 h ROS as drug targets
15.30–16.00 h Coffee Break
16.00–18.00 h ROS biomarkers
18.00–19.20 h ROS in translation

April 23rd
08.00–19.00 h Registration
08.45–10.30 h Mitochondria and ROS
10.30–11.00 h Coffee Break
11.00–12.40 h ROS mechanisms
12.40–14.30 h Lunch Break and Posters
14.30–16.10 h Redox and epigenetics I
16.10–16.40 h Coffee Break
16.40–18.45 h Redox and epigenetics II
19.30 h Social Dinner

April 24th
08.00–11.00 h Registration
08.45–11.00 h ROS signaling and cancer
11.00–11.30 h Coffee Break
11.30–13.30 h ROS Imaging
13.30 h Farewell