XIV International Magnesium Symposium

President: Federica I Wolf

MAGNESIUM IN HEALTH AND DISEASE

Roma, Villa Malta - June 23-24, 2016

PROGRAM & ABSTRACTS

Organizing Committee:

André Mazur - Rhian Touyz - Federica I Wolf

SDRM The International Society for the Development of Research on Magnesium
Thursday June 23rd, Morning

09:00 – 09:45  Registration (Sala Musica)

09:45 - 10:00  Welcome Remark  Federica I Wolf (Rome, Italy) (Sala Curci)

SESSION 1  Magnesium homeostasis, status and epidemiologic data

Chairmen:  André Mazur (Clermont-Ferrand, France)  Federica I Wolf (Rome, Italy)

10:00 -10:30  Kidney, the key organ of Mg homeostasis  René Bindels (Nijmegen, Netherlands)

10:30 - 11:00  Magnesium status evaluation: Where we are now and what is the future?  André Mazur (Clermont-Ferrand, France)

11:00 - 11:30  Magnesium deficiency and diseases  Qi Dai (Nashville, USA)

11.30-11.45  OC01 – Oral Communication  Proposed Guidance for the Determination of Status Indicators and Dietary Requirements for Magnesium  Forrest H. Nielsen (Grand Forks, USA)

Breaking News session:

11.45-12.15  Daily magnesium fluxes regulate cellular timekeeping and energy balance  Gerben van Ooijen (Edinburgh, UK)

12:15- 13:30  Welcome buffet  Lunch (villa Malta garden)
Thursday June 23rd, Afternoon

SESSION 2  
**Magnesium in Cardiovascular Diseases**

*Chairmen:*
- Andrea Rosanoff (Pahoa, USA)
- Rhian Touyz (Glasgow, UK)

13:30 - 14:00  
**Magnesium and cardiovascular biology in health and disease**
- Rhian Touyz (Glasgow, UK)

14:00 - 14:30  
**Dietary Mg and Cardiovascular Diseases**
- Jorge Salas-Salvadò (Reus, Spain)

14:30 – 15:00  
**Dietary Mg and Stroke**
- Kathryn M Rexrode (Boston, USA)

15:00-15.30  
**Magnesium in Coronary Calcification: An Epidemiologic Approach**
- Adela Hruby (Boston, USA)

15:30-15:45  
**OC02 - Oral Communication**
- Magnesium Supplementation and Mg transporters in pre-hypertensive subjects
- Mariana R Rodriguez (Durango, México)

15.45 – 16:15  
*Coffee/Tea Break around Posters (Sala Archivio)*
SESSION 3  Magnesium in Metabolic Diseases

Chairmen:  
Fernando Guerrero-Romero (Durango, Mexico)  
Andrea MP Romani (Cleveland, USA)

16:15 – 16.45  
Mg²⁺ Deficiency results in increased intra-hepatic Cortisol levels through NF-kB translocation and Inflammatory Cytokines Production  
Andrea MP Romani (Cleveland, USA)

16:45 – 17:15  
Magnesium in Metabolic syndrome  
Ka He (Bloomington, USA)

17:15 – 17.45  
Mg obesity and metabolic disease  
Fernando Guerrero-Romero (Durango, Mexico)

17:45-18.00  
OC03 - Oral Communication  
Effect of Magnesium Supplementation on Glucose Metabolism: a Systematic Review and Meta-Analysis of Double-Blind Randomized Controlled Trials  
Nicola Veronese (Padova, Italy)

18.00-18.15  
OC04 - Oral Communication  
Magnesium Supplementation and Counseling on Glycemic and Genomic Outcomes Among Overweight Pregnant Women  
Simin Liu (Los Angeles, USA)

18.15-18.30  
OC05 - Oral Communication  
Chronic Exercise Down-regulates Expression of Magnesium-Responsive Genes in Blood Cells of Diabetic Patients  
Fu-Chou Cheng (Taichung, Taiwan)
SESSION 4  Magnesium in Chronic Diseases

Chairmen:  René Bindels (Nijmegen, Netherlands)  
            Rhian Touyz (Glasgow, UK)

08:30 – 09:00  Magnesium and chronic kidney disease  
            Ziad A Massy (Paris, France)

09.00-09.15  OC06 - Oral Communication  
            TRPM7 kinase domain modulates macrophages and T-lymphocytes infiltrated in kidneys and spleens induced by aldosterone and salt treatment  
            Francisco J Rios (Glasgow, United Kingdom)

SESSION 5  Magnesium in Neuropathology and Stress

Chairmen:  Mihai Nechifor (Iasi, Romania)  
            Robert Vink (Adelaide, Australia)

09:15 – 09:45  Magnesium in CNS  
            Robert Vink (Adelaide, Australia)

09:45- 10:15  Mg and depression  
            Miguel Angel Martínez-González (Pamplona, Spain)

10:15– 10:45  Coffee Break around Posters

10.45- 11.15  Magnesium in anxiety and depression: lesson from a rodent model  
            Ewa Poleszak (Lublin, Poland)

11.15 – 11.45  Magnesium treatment and stress  
            Elena S Akarakhkova (Moscow, Russia)

11.45-12.00  OC07- Oral Communication  
            The effects of magnesium supplementation on subjective stress and anxiety: A systematic review  
            Louise Dye (Leeds, UK)
12.00- 12.15  **OC08** - Oral Communication
**Magnesium in addictions**
*Mihai Nechifor* *(Iasi, Romania)*

12:15 - 13:30  *Buffet Lunch (Villa Malta Garden)*

**Friday June 24th, Afternoon**

**SESSION 6  Magnesium in Inflammation, Immunity and Cancer**

**Chairmen:**
*Michael J Lenardo* *(Bethesda, USA)*  
*Jeanette AM Maier* *(Milano, Italy)*

13:30 - 14:00  Inflammation
*Jeanette AM Maier* *(Milano, Italy)*

14:00 - 14:30  Role for Mg$^{2+}$ in immune cell metabolism revealed by MagT1 immunodeficiency
*Michael J Lenardo* *(Bethesda, USA)*

14:30 - 15:00  TRPM7 and its dual action in cancer
*Halima Ouadid-Ahidouch* *(Amien, France)*

15.00 - 15.15  **OC09** - Oral Communication
Magnesium modulates doxorubicin activity through drug lysosomal sequestration and trafficking
*Valentina Trapani* *(Rome, Italy)*

15.15 - 15.30  **OC10** - Oral Communication
New Targeted Fluorescent Sensors For the Study of Intracellular Magnesium Distribution and Mobilization
*Daniela Buccella* *(New York, USA)*

15:30 – 16.00  *Coffee/Tea break around Posters (Sala Archivio)*
SESSION 7  Magnesium in Gender Medicine

Chairmen:  Marie José Laires (Lisboa, Portugal)
           Halima Ouadid-Ahidouch (Amien, France)

16:00 – 16.30  Mg in pregnancy and childbirth
               Motti Hallak (Hadera, Israel)

16:30 – 17.00  Mg and Osteoporosis
               Ailsa A Welch (Norwich, UK)

17.00 – 17:15  OC11 - Oral Communication
               TRPM7 and MagT1 are critical in the osteogenic differentiation of human bone
               Mesenchymal Stem Cells
               Sara Castiglioni (Milano, Italy)

17:15 – 17:30  OC12 - Oral Communication
               Magnesium and its effect on human osteoclasts and osteoblasts differentiation
               Bérengère Luthringer (Geesthacht, Germany)

17:30 – 17:45  Award Nomination and Closing Ceremony

Chairmen:  André Mazur (Clermont-Ferrand, France),
           Rhian Touyz (Glasgow, UK)
           Federica I Wolf (Rome, Italy)