14th International Congress on Amino Acids, Peptides and Proteins

Wien August 3rd - 7th, 2015

POLYAMINES Program

Monday, August 3rd, 2015

8:45 am – 9:00 am *Welcome to Wien* by **G. Lubec and E. Agostinelli**

9:00 am – 9:15 am *Introduction:* **U. Bachrach (Hebrew University, Israel)**
The Rise and Decline of Polyamine Research

9:15 am – 12:30 pm ***POLYAMINES:*** **Session I**

Chairpersons: **E. Agostinelli (SAPIENZA University of Rome, Italy)**
T. Oka (Wakunaga Pharm. Co., Hiroshima, Japan)

9:15 am –10:00 am [PL 01] **C. Kahana (Weizmann Institute of Science, Rehovot, Israel)**
Inhibition of cellular proliferation and differentiation by polyamine depletion

10:00 am -10:30 am [L 02] **A.K. Handa (Purdue University, West Lafayette, *IN*, USA)**
RNAseq reveals polyamine signaling in relation to tomato fruit development and ripening

10:30 am – 11:00 am **Coffee Break**

11:00 am - 11:30 am [L 03] **G. Wu (Animal Science, Texas A&M University, USA)**
Synthesis of polyamines from L-proline in the porcine placenta and neonatal enterocytes

11:30 am -12:00 pm [L 04] **F.W. Bazer (Animal Science, Texas A&M University, USA)**
Pathways for Synthesis of Polyamines and Their Roles in Conceptus Development and Pregnancy Recognition Signaling in Sheep

12:00 pm -12:30 pm [L 05] **I.S. Blagbrough (University of Bath, UK)**

Design, synthesis, and biological evaluation of N4,N9-di-fatty acid conjugates of spermine as non-viral siRNA delivery vectors

12:30 pm - 2:00 pm **LUNCH**

2:00 pm - 3:00 pm **Poster Session**

3:00 pm – 6:00 pm ***POLYAMINES*** **: Session II**

Chairpersons: **C. Kahana (Weizmann Inst. of Science, Rehovot, Israel)**
A. Khomutov (Russian Academy of Sciences, Moscow, Russia)

3:00 pm - 3:30 pm [L 06] **S. Valentini (São Paulo State University, Brazil)**
Understanding the role of the hypusine-containing protein eIF5A in translation

3:30 pm - 4:00 pm [L 07] **A. E. Kaiser (MRC, University Duisburg-Essen, Germany)**
New insights into novel inhibitors against deoxyhypusine hydroxylase from plasmodium falciparum: compounds with an iron chelating potential

4:00 pm – 4:30 pm **Coffee Break**

4:30 pm -5:00 pm [L 08] **A. Toninello (University of Padua, Italy)**
Mechanism of mitochondrial permeability transition prevention or induction by spermine in mammalian mitochondria

5:00 pm - 5:30 pm [L 09] **S. Pietropaoli (University of Roma Tre, Rome , Italy)**
Role of Spermine Oxidase in modulation of glutamate receptors and transporters during excitotoxic stress

5:30 pm - 6:00 pm [L 10] **E. Verderio Edwars (Nottingham Trent University, UK)**
Mapping the transglutaminase-2 interactome in a model of chronic kidney disease

Tuesday, August 4th, 2015

9:15 am – 12:30 pm ***POLYAMINES:*** **Session III**

Chairpersons: **U. Bachrach (Hebrew University, Israel)**
A. Toninello (University of Padua, Italy)

9:15 am - 10:00 am [PL 11] **J.P. Moulinoux (University of Rennes I, France)**
Erythrocyte polyamine determinations: their clinical impact as specific predictors in cancer and in non-cancer diseases

10:00 am -10:30 am [L 12] **E. Agostinelli (SAPIENZA University of Rome, Italy)**
Can polyamines be used to combat cancer? New therapeutic approaches

10:30 am – 11:00 am **Coffee Break**

11:00 am - 11:30 am [L 13] **K.T. Wilson (Vanderbilt University, Medical Center, Nashville, TN, USA)**
Role of Polyamines and EGFR Signaling in Helicobacter pylori Infection and Gastric Carcinogenesis: Targets for Intervention

11:30 am -12:00 pm [L 14] **F. Vianello (University of Padua, Italy)**
Bovine serum amine oxidase and chromate modified iron oxide nanoparticles for polyamine biosensing

12:00 pm -12:30 pm [L 15] **H. J. Lin (National Taiwan Ocean University, Taiwan)**
Use of polyamine to synthesize fluorescent carbon quantum dots as bactericide and transfection reagents

12:30 pm - 2:00 pm **LUNCH**

2:00 pm - 3:00 pm **Poster Session**

3:00 pm - 6:30 pm ***POLYAMINES*** **: Session IV**

Chairpersons: **J.P. Moulinoux (University of Rennes I, France)**
S. Valentini (São Paulo State University, Brazil)

3:00 pm -3:30 pm [L 16] **I.S. Blagbrough (University of Bath, UK)**
Design, synthesis, and biological evaluation of lipopolyamines, especially spermine conjugates as non-viral pDNA delivery vectors

3:30 pm - 4:00 pm [L 17] **A. Khomutov (Russian Academy of Sciences, Moscow, Russia)**
Synthesis of biologically active analogues of spermine and spermidine

4:00 pm – 4:30 pm **Coffee Break**

4:30 pm – 5:00 pm [L 18] **K. Soda (Jichi Medical University, Saitama, Japan)**
Biological background of polyamine-induced lifespan extension

5:00 pm - 5:30 pm [L 19] **M. Esposito (University of Naples "Federico II", Naples, Italy)**
Development and properties of pectin/spermidine hydrocolloid films

5:30 pm -5:45 pm **Conclusions**: **E. Agostinelli**

POSTERS

P01 M. L. Di Paolo (University of Padua, Italy)
Benextramine derivatives as probes to target human monoamine oxidases.

P02 Polyamine oxidase synthesis by blood lymphocytes as the result of their stimulation of phytohemagglutinin in the cerebral gliomas
N. Y. Gridina[1], S. P. Syatkin[2], V. A. Frolov [2], N. G. Draguntsova[1], O. I. Veselova [1], V.P. Maslov [3], U.V. Ushenin [3]

P03 The antiproliferative and proapoptogenic effect of aniline derivative copper (II) complex that activates catabolism and inhibits synthesis of polyamines
E. V. Neborak, S. P. Syatkin, N. A. Shevkun, A. S. Skorik

P04 The correlation between the influence of aniline derivatives on oxidative deamination of polyamines ant their ionization constants
E. V. Neborak, S. P. Syatkin, N. A. Shevkun, A. S. Skorik

P05 Activators of polyamine oxidase as potential antitumor agents
S. P. Syatkin, E. V. Neborak, R. I. Sokuev, N. A. Shevkun, A. S. Skorik.

P06 The influence of aniline derivatives, their copper complexes and dioxaborininopyridine derivatives on ornitindecarboxilase activity
S. P. Syatkin, E. V. Neborak, N. A. Shevkun, A. S. Skorik

P07 Identification of structural targets in Polyamine oxidase active site for the directed synthesis of polyamine catabolism activators
S. P. Syatkin, N. A. Shevkun, E. V. Neborak, A. S. Skorik

P08 Fluoro derivatives of (+)-usnic acid as the potential exchange regulators of polyamines
R. I. Sokuev[1], N. A. Sokueva[2], S. P. Syatkin [3]