

BIOGENIC AMINES 2005

BIOLOGICAL AND CLINICAL PERSPECTIVES

PROGRAM

[Thursday, April 28]

Wellcome address

E. Agostinelli (Italy)

R. Ientile (Italy)

Opening lectures

Chairperson: K. Igarashi (Japan), H. M. Wallace (USA)

[L 01] P. Coffino (USA)

Designer substrates derived from ornithine decarboxylase test the limits of proteasome function

[L 02] T. Oshima (Japan)

Polyamine biosynthetic pathways in an extreme thermophile, *Thermus thermophilus*

[L 03] A. Grillo (Italy)

Progress in agmatine research

[Friday, April 29]

Session 1 Polyamines and amine oxidases : clinical aspects

Chairpersons: U Bachrach (Israel), E. Agostinelli (Italy)

[L 04] U. Bachrach (Israel)

Anticancer activity of amine oxidases microinjected by viruses: a model for gene therapy

[L 05] K. Igarashi (Japan)

Polyamine oxidation and acrolein: novel biochemical markers for diagnosis of stroke

[L 06] E. Agostinelli (Italy)

Thermosensitizing activity of the enzymatic oxidation products of spermine and *in vivo* studies suggest a new approach in anticancer therapy

[L 07] M. Unzeta (Spain)

Apoptotic effect of plasma semicarbazide sensitive amine oxidase (SSAO) on vascular cells: its possible implication in neurodegenerative diseases

[L 08] D. A. Averill-Bates (Canada)

Mechanisms of apoptosis induced by acrolein, a spermine oxidation product

[L 09] M. Marra (Italy)

Bovine serum amine oxidase and spermine potentiate the cytotoxicity induced on human cancer cells by different anticancer drugs

[L 10] B. Mondovi (Italy)

Connection between amine oxidases and nitric oxide

Oral Presentation for poster [P01-P11]

Chairpersons: A. Toninello (Italy), R. Avola (Italy)

Session 2 Polyamines and transglutaminases

Chairpersons: M. Griffin (UK), V. Gentile (Italy)

[L 11] M. Griffin (UK)

Transglutaminase2-induced alterations in the extracellular matrix lead to inhibition of angiogenesis and tumour growth

[L 12] V. Gentile (Italy)

Transglutaminases: from the basic biochemistry to the human diseases

[L 13] G. D'Argenio (Italy)

Role of transglutaminases in colon inflammation

[L 14] D. Caccamo (Italy)

Transglutaminase and NFκB pathway in inflammatory cells

[L 15] A. Campisi (Italy)

Growth factor-neurosteroid cross-talk and transglutaminase in primary astroglial cell cultures

[L 16] G. Li Volti (Italy)

Sigma receptors and tissue transglutaminase in primary rat astroglial cell cultures

[Saturday, April 30]

Meetin Italian Biogenic Amines Group

Session 3 Polyamines in cell growth and differentiation

Chairpersons: A. Abbruzzesse (Italy), D. A. Averill-Bates (Canada)

[L 17] O. Heby (Sweden)

Polyamine depletion triggers the DNA damage pathway in teratocarcinoma and embryonic stem (ES) cells

[L 18] H. M. Wallace (UK)

Polyamine analogues in cancer chemotherapy and prevention

[L 19] R. Madhubala (India)

Relationship between polyamine biosynthesis and development of antimony resistance in *Leishmania donovani*

[L 20] K. Kashiwagi (Japan)

Recent progress in polyamine transport systems in *Escherichia coli*

[L 21] A. Facchini (Italy)

Polyamine depletion inhibits apoptosis in human chondrocytes stimulated by
Tumor Necrosis Factor- α

Session 4 Polyamines in plants

Chairpersons: O. Heby (Sweden), A. Michael (UK)

[L 22] A. Michael (UK)

The yeast FMS1 polyamine oxidase is not significantly involved in polyamine
retroconversion: transcriptome and proteome analysis of the effects of
polyamine acetylation in yeast

[L 23] D. Serafini (Italy)

Do polyamines inhibit or stimulate PCD?

[L 24] N. Bagni (Italy)

Effect of different analogues of agmatine on cell proliferation of *Helianthus
tuberosus* tuber explants

Concluding remarks

Chairperson: E. Agostinelli (Italy), U. Bachrach (Israel)