

POLYAMINES 2000

BIOLOGICAL AND CLINICAL PERSPECTIVES

2ND EUROPIAN POLYAMINE CONFERENCE



Oral Poster Presentations

Chairman: L. Persson (Sweden)

[OP 1.7] S. M. Oredsson, K. Alm, P. S. H. Berntsson, J. O. Fredlund, D. L. Kramer, C. W. Porter (Sweden/USA):

Early consequences on cell cycle progression by polyamine biosynthesis inhibition.

[OP 1.8] D. A. Johnson, A. Fallon, C. Fields, M. J. Viar, L. R. Johnson (USA):

Effect of polyamine depletion on migration of retinal pigmented epithelial cells.

[OP 1.9] J. Nilsson, A. Gritli-Linde, O. Heby (Sweden):

Skin fibroblasts from spermine synthase-deficient hemizygous gyro mice overproduce spermidine and exhibit increased resistance to oxidative stress but decreased resistance to UV irradiation.

[OP 1.10] F. Marini, L. Betti, S. Scaramagli, S. Biondi, P. Torrigiani (Italy):

Upregulation of polyamine biosynthesis and oxidation during the hypersensitive response to TMV.

[OP 2.7] M. Marra, G. Giuverti, A. M. D'Alessandro, S. Beninati, A. Budillon, M. Caraglia, A. Abbruzzese (Italy):

Hypusine biosynthesis as a molecular target for the potentiation of apoptosis in anti-cancer therapy.

[OP 2.8] A. Toninello, E. Pezzato, L. Bordin, G. Clari (Italy):

Energy dependent spermine transport in heart mitochondria and its effect on pyruvate dehydrogenase complex.

[OP 3.13] I. Yoshida, Y. Tarui, E. Hirasawa (Japan):

Photoinduction of key enzymes for polyamine biosynthesis in leaves and

flower-bud induction of *Pharbitis nil*.

[OP 3.14] M. Mayer, A. J. Michael (UK):

Manipulation of ornithine decarboxylase activity in transgenic tobacco.

[OP 3.15] O. Levillain (France):

Renal arginase AII is not involved in polyamine synthesis in the kidney of female OF-1 mouse.

[OP 3.16] C. Cabella, G. Gardini, D. Corpillo, G. Testore, S. P. Solinas, M. A. Grillo, S. Colombatto (Italy):

Synthesis of polyamines and GABA from agmatine taken up by rat hepatocytes.

[OP 5.6] M. Friggeri, N. Tazzini, F. Bacciottini, A. Bonetti, L. Lanati, M. Manara, A. Luccini, R. Delsignore, A. Casti (Italy):

Pattern of blood oxidative state and polyamine concentration in young athletes.

[OP 6.7] A. Hughes, H. M. Wallace (UK):

Modulation of intracellular polyamine concentrations decreases non-steroidal anti-inflammatory drug induced cytotoxicity.

[OP 6.8] V. Milovic, J. Stein, G. M. Murphy (Germany/Russia):

Bile acids and colon cancer: are polyamines the missing link?



Poster Presentation

Chairman: E. Agostinelli (Italy)

[P 1.11] P. S. H. Berntsson, S. M. Oredsson (Sweden):

Cyclin expression during the cell cycle in polyamine-depleted chinese hamster ovary cells.

[P 1.12] C. Hegardt, G. Andersson, S. M. Oredsson (Sweden):

Different roles of spermine in glucocorticoid- and Fas-induced apoptosis.

[P 1.13] R. Ray, M. J. Viar, L. R. Johnson (USA):

Role of polyamines in TNF- α induced apoptosis in intestinal epithelial cells (IEC-6).

[P 1.14] A. Dale, S. Ellwood, E. Morlon, A. J. Michael (UK):

Smart-screening for plant-derived suppressors of polyamine depletion in yeast.

[P 1.15] M. L. van Buuren, L. Guidi, F. Ghetti, S. Fornale, M. Franceschetti, G. F. Soldatini, N. Bagni (Italy):

Regulation of polyamine biosynthesis during ozone-induced cell death in tobacco.

[P 1.16] J. A. Creus, X. Feixa, J. Barcelo (Spain):

Polyamines and DNA in roots of *Zea mays* cultivars differing in aluminium tolerance.

[P 1.17] C. Illingworth, A. J. Michael (UK):

ODC interacting proteins from *Arabidopsis* and pea.

[P 1.18] C. Stefanelli, I. Stanic, A. Toninello, M. Zini, F. Bonavita, L.

Zambonin, L. Landi, C. Pignatti, F. Flamigni, C. Clo, C. Guarnieri, C. M. Caldarera (Italy):

Polyamines induce the release of cytochrome *c* from heart mitochondria.

[P 1.19] Y. Hanzawa, T. Takahashi, A. J. Michael, D. Burtin, D. Long, M.

Pineiro, G. Coupland, Y. Komada (Japan):

Genetic manipulation of plant morphogenesis by an *Arabidopsis* spermine synthase gene.

[P 2.9] C. Clo, C. Pignatti, B. Tantini, M. Fattori, C. Stefanelli, A. Facchini, E. Giordano, M. Menegazzi, C. M. Caldarera (Italy):

Pathways involved in ODC induction by TNF in cultured cardiomyocytes: role of NF-kB.

[P 2.10] A. Tassoni, M. Franceschetti, F. Spinelli, N. Bagni (Italy):

Cloning of maize coleoptiles spermidine-binding proteins.

[P 3.17] K. Nishimura, Y. Ohki, T. Fukuchi-Shimogori, K. Saiga, K.

Kashiwagi, K. Igarashi (Japan):

Inhibition of active eIF5A formation by deoxyspergualin.

[P 3.18] L. Turchanowa, V. Milovic, A. R. Khomutov, A. S. Shvetsov, R. M.

Khomutov, J. Stein (Germany/Russia):

Cellular polyamine homeostasis and novel spermine analogue, 11-[(amino)oxy-4,9-diaza-1-aminoundecane].

[P 3.19] A. R. Khomutov, Y. Deryabina, A. Demin, A. Shvetsov, R.

Zvyagilskaya (Russia):

Insufficiently charged polyamine analogues.

[P 3.20] L. Marcocci, Z. G. Milella, S. Nocera, S. Di Giovanni, P. Pietrangeli, O. Befani, B. Mondovi (Italy):

Considerations on fluorimetric methods for the detection of amine-oxidase activity.

[P 3.21] S. Nasizadeh, L. Thiman, L. Persson (Sweden):

Rapid turnover of a trypanosomal ornithine decarboxylase.

[P 3.22] K. Takao, E. Lovkvist Wallstrom, L. Persson (Sweden):

Importance of the 3' untranslated region of ODC mRNA in the translational control of the enzyme.

[P 3.23] M. Dudkowska, A. Stachurska, W. Chmurzynska, M.

Manteuffel-Cymborowska, B. Grzelakowska-Sztabert (Poland):

Cross-talk between androgen receptor and c-met results in down regulation of ODC gene expression in mouse kidney.

[P 3.24] M. Franceschetti, K. Zuccherelli, M. J. Mayer, A. J. Michael, N.

Bagni (Italy/UK):

Morphological and biochemical analysis of spermidine synthase sense and antisense tobacco plants.

[P 3.25] F. Antognoni, M. Mutuale, N. Bagni (Italy):

Bis(guanylhydrazones) inhibit germination of pollen from *Actinidia chinensis*.

[P 3.26] S. Scaramagli, F. Paglierani, S. Biondi, M. Mayer, A. J. Michael, P.

Torrigiani (Italy/UK):

Altered putrescine-to-spermidine ratios in SAMDC antisense tobacco.

[P 3.27] F. Pieckenstain, A. Garriz, E. Chornomaz, D. Sanchez, O. A.

Ruiz (Argentina):

Inhibition of polyamine biosynthesis in the phytopathogenic fungi *Sclerotinia sclerotiorum*.

[P 3.28] L. Bassie, O. Lepri, P. Christou, T. Capell (UK):

Transgenic cell lines as a useful tool to study the biochemistry of down-regulation of an endogenous rice gene using a pea diamine oxidase cDNA.

[P 3.29] C. Hanfrey, A. J. Michael (UK):

Translational regulation of plant S-adenosylmethionine decarboxylase.

[P 3.30] E. Moyano, S. Fornale, A. Mallol, S. Bentebibel, J. Palazon, N. Bagni,

M. T. Pinol (Spain/Italy):

Over-expressing putrescine-N-methyltransferase in *Datura metel* and *Duboisia* hybrid hairy root cultures.

[P 3.31] P. Tavladoraki, F. Polticelli, V. Gobbi, L. Ricci, G. Rea, R. Angelini, R. Federico (Italy):

Heterologous expression and site-directed mutagenesis of maize polyamine oxidase.

[P 4.7] S. Del Duca, L. Dondini, M. Della Mea, D. Serafini-Fracassini (Italy):

Factors affecting transglutaminase in the isolated chloroplast under illumination.

[P 5.7] G. G. Pinna, S. Marchese, C. Carru, G. M. Pes, A. Naitana, M. Cossu, G. Sorba (Italy):

Erythrocyte polyamine levels in stable renal transplant recipients.

[P 5.8] P. Ruggeri, L. Denaro, I. Venza, A. Valenti, G. Nicocia, D. Teti (Italy):

Polyamine metabolism in PGE2 treated human T lymphocytes from subjects with gastric tumor.

[P 6.9] J. G. Delcros, B. Martin, S. Tomasi, M. Le Roch, J. Renault, P. Uriac (France):

Probing the structural specificities of the polyamine transport system with novel polyamine-azepine conjugates.

[P 6.10] S. Pedeboscq, B. L'Azou, S. Frappier, J. Cambar, J. P. Pometan (France):

Determination of polyamine levels on primary glioblastoma cell cultures.

[P 6.11] F. T. A. Beira, M. A. Trejo, I. Claparols, L. Rodriguez, M. P. Rivera-Fillat, M. R. Grau-Oliete (Spain):

Polyamine biosynthesis inhibition and cytotoxic effect of Jodina rhombifolia Hook et Arn fractoins in human pancreatic carcinoma cells.

[P 6.12] C. Soede-Huijbregts R. Shipper, P. Verdegem, M. Sedelaar, E. Humpfer, M. Spraul, J. de la Rosette, J. C. Romijn, A. Verhofstad, A. Heerschap (Germany/Netherlands):

Polyamines as biomarkers of prostatic cancer diagnosis using ¹H-HRMAS NMR.

[P 6.13] L. Turchanowa, R. Bauske, V. Milovic, J. Stein (Germany):

Nonsteroidal antiinflammatory drugs down-regulate c-myc and ODC
expression in colon cancer cells.

[P 7.5] A. Sass-Kiss, G. Hajos (Hungary):
Polyamines in hungarian Aszu Wines.



Concluding Remarks

U. Bachrach (Israel)

