

"ASPETTI BIOLOGICI DELL'OSSIDO DI AZOTO" - XIII CONVEGNO MONOTEMATICO SIF

MARTEDI 19 SETTEMBRE 2006

8.30

REGISTRAZIONE

9.00 - 9.10

APERTURA DEI LAVORI

I SESSIONE

Moderatori: Giuseppe Cirino, Salvatore Cuzzocrea

9.10 - 9.30

MELATONIN INHIBITS EXPRESSION OF THE INDUCIBLE ISOFORM OF NITRIC OXIDE SYNTHASE AND CYCLOOXYGENASE-2 IN GLIOMA CELLS.

Emanuela Esposito¹, Carmelo Muià², Giuseppina Mattace Raso¹, Rosaria Meli¹ and Salvatore Cuzzocrea^{2,3}.
¹Department of Experimental Pharmacology, University of Naples "Federico II", Napoli, Italy;
²Department of Clinical and Experimental Medicine and Pharmacology, School of Medicine, University of Messina, Italy. ³IRCCS Centro Neurolesi "Bonino-Pulejo", Messina, Italy.

9.30 - 9.50

MODULATION OF NITRIC OXIDE HOMEOSTASIS IN MICE MODEL OF SPINAL CORD INJURY

^{1,2}Tiziana Genovese, ^{1,2}Emanuela Mazzon, ³Sofia Mariotto, ³Marta Menegazzi, ³Hisanori Suzuki, ²Placido Bramanti, ¹Salvatore Cuzzocrea
¹Institute of Pharmacology, University of Messina, Italy. ²IRCCS Centro Neurolesi "Bonino-Pulejo", Messina, Italy, ³Biochemistry Division, Department of Neuroscience and Vision, University of Verona, Verona, Italy.

9.50 - 10.10

CERAMIDE-DRIVEN OXIDATIVE/NITRATIVE STRESS: A KEY PATHWAY IN ASTHMA

Masini E.^a, Nistri S.^b, Cinci L.^b, Uliva C.^a, Marzocca C.^a, Cohmair S. A.A.^a, Serpil C. Erzurum C.S.^c, Li D.^d, Michael Ndengele M.^d, Salvemini D.^d.

^a Department of Preclinical and Clinical Pharmacology University of Florence, Florence, Italy; ^b Anatomy, Histology and Forensic Science, Section of Histology, University of Florence, Florence, Italy; ^c Pulmonary, Critical Care Medicine, and Cancer Biology, The Lerner Research Institute, The Cleveland Clinic Foundation, Cleveland OH 44195, USA. Internal Medicine; ^d Division of Pulmonary, Critical Care and Sleep Medicine, St Louis University, St Louis MO 63114, USA.

10.10 - 10.30

INOS CONTROLS EP2 PROSTANOID RECEPTOR MEDIATED SQUAMOUS CELL GROWTH AND INVASION

Donnini Sandra, Finetti Federica, Solito Raffaella, Morbidelli Lucia, Terzuoli Erika and Ziche Marina.
Department of Molecular Biology, University of Siena, Italy.

PAUSA CAFFÈ

II SESSIONE

Moderatori: Paolo Di Simplicio, Loris Grossi

11.00 - 11.20

PRODUCTION OF \cdot NO BY HUMAN SALIVARY PEROXIDASES

Palmerini C.A., Carlini E., Saccardi, C, Arienti G.

Department of Internal Medicine, The University of Perugia, Via del Giochetto, I-06122 Perugia (Italy)

11.20 - 11.40

PLATELET RESISTANCE TO NITRIC OXIDE DONORS, PROSTACYCLIN AND ANTI-AGGREGATING CYCLIC NUCLETIDES IN OBESE SUBJECTS IS REVERTED BY WEIGHT LOSS.

I. Russo, M. Traversa, K. Bonomo, L. Mattiello, A. De Salve, E. Fiora, G. Doronzo, M. Trovati, G. Anfossi

Diabetes Unit, Department of Clinical and Biological Sciences of the Turin University, San Luigi Gonzaga Hospital, Orbassano (Turin), Italy

11.40 - 12.00

I NITRITI COME RISERVA DI NO NON ENZIMATICA.

Loris Grossi¹

¹Dipartimento di Chimica Organica "A. Mangini" Università di Bologna

12.00 - 12.20

FLAVODIIRON PROTEINS AND MICROBIAL NITRIC OXIDE DETOXIFICATION

Alessandro Giuffrè¹, João B. Vicente², Francesca M. Scandurra¹, João V. Rodrigues, Maurizio Brunori¹, Paolo Sarti¹ & Miguel Teixeira²

¹CNR Institute of Molecular Biology and Pathology, Department of Biochemical Sciences and Istituto Pasteur-Fondazione Cenci Bolognetti, University of Rome "La Sapienza", Rome I-00185, Italy. ²Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, Av. da República (EAN), 2781-901 Oeiras, Portugal.

12.20 - 12.40

THE IN VIVO NO-MEDIATED PRODUCTION OF cGMP IN THE RAT FRONTAL CORTEX IS MODULATED BY GABA_A, BUT NOT NMDA, RECEPTORS.

Fedele E.^{1,2}, Pepicelli O.¹, Raiteri M.^{1,2}

¹Department of Experimental Medicine, Pharmacology and Toxicology Section, University of Genova, Viale Cembrano 4, 16148 Genova, Italy; ²Centre of Excellence for Biomedical Research, University of Genova, Italy.

12.40 - 14.00

PAUSA PRANZO

14.00 - 14.30

SESSIONE POSTER

14.30 - 16.00

Presentazione Poster

Moderatori: Emilio Clementi, Marco Colasanti

III SESSIONE

Moderatori: Emanuela Masini, Paolo Sarti

16.00 - 16.20

EFFECTS OF OSMOTIC STRESS ON THE EXPRESSION OF nNOS GENE IN THE HYPOTHALAMUS OF A TELEOST

Bordieri L., Bonaccorsi di Patti M.C., Miele R., Cioni C.

Dip. Biologia Animale e dell'Uomo, Università degli Studi di Roma "La Sapienza".

16.20 - 16.40

PARTIAL CLONING OF nNOS GENE AND REGIONAL DISTRIBUTION OF nNOS mRNA IN THE CENTRAL NERVOUS SYSTEM OF TELEOSTS

Cioni C., Bonaccorsi di Patti M.C., Miele R., Bordieri L.

Dip. Biologia Animale e dell'Uomo, Università degli Studi di Roma "La Sapienza".

16.40 - 17.00

INHIBITION OF NITRIC OXIDE RELEASE BY ETHANOL.

Crespi F. and Rossetti Z.L.:

Biology, PsyCEDD, GlaxoSmithKline, Verona, and University of Cagliari, Italy

17.00 - 17.30

PAUSA CAFFÈ

IV SESSIONE

Moderatori: Carla Cioni, Carlo Alberto Palmerini

17.30 - 17.50

β-AMYLOID-INDUCED OXIDATIVE STRESS PROMOTES CONSTITUTIVE ENOS/HSP90 INTERACTION AND BLOCKS ENOS PHOSPHORYLATION AT SERINE 1179.

¹Valeria Mazzone, ²Sarika G. Sood, ³Michael B. Harris, ²Richard C. Venema, ²Ruth B. Caldwell, ⁴Vincenzo Mollace, ²Manuela Bartoli and ¹Marco Colasanti

1 Dept. of Biology, University of Rome "Roma Tre"; Italy; 2 Vascular Biology Center, Medical College of Georgia; USA; 3 Dept. of Physiokinesi College of William and Mary, Richmond, Virginia, USA; 4 Dept. of Pharmacobiology University of Catanzaro, Catanzaro-Italy

17.50 - 18.10

ACID SPHINGOMYELINASE: A NEW TARGET BIOLOGICAL TARGET OF THE NITRIC OXIDE/CYCLIC GMP PATHWAY

Cristiana Perrotta¹, Sestina Falcone^{1,2,3}, Laura Bizzozero¹, Clara Sciorati¹, Emilio Clementi^{1,2,3}

¹Stem Cell Research Institute, H. San Raffaele Scientific Institute, 20132, Milan, Italy.; ²Department of Preclinical Sciences, LITA Vialba, L. Sacco Hospital, University of Milano, 20157 Milano, Italy; ³E. Medea Scientific Institute, 23842 Bosisio Parini, Italy.

18.10 - 18.30

**HYDROGEN PEROXIDE-DEPENDENT ERK1/2 DEPHOSPHORYLATION MEDIATES TOXICITY
VIA UPSTREAM INHIBITION OF THE SURVIVAL SIGNALLING IN U937 CELLS EXPOSED TO
PEROXYNITRITE**

Cerioni L. and Cantoni O.

Istituto di Farmacologia e Farmacognosia, Università degli Studi di Urbino "Carlo Bo", via S. Chiara, 27,
61029 Urbino (PU)

18.10 - 18.30

CHIUSURA DEI LAVORI

Posters

PRO-INFLAMMATORY EFFECTS OF ERYTHROCYTES FROM UREMIC PATIENTS ON CULTURED HUMAN ENDOTHELIAL CELLS: INSIGHT INTO SIGNALING PATHWAYS.

Di Tomo P.¹, Di Pietro N.¹, Sirolli V.², Giardinelli A.¹, Di Silvestre S.¹, Amoroso L.², Capani F.², Consoli A.², Bonomini M.², Pandolfi A.¹.

¹ Aging Research Center, Ce.S.I., "G. d'Annunzio" University Foundation, Department of Biomorphology and ² Department of Medicine and Aging Science, University "G. d'Annunzio", Chieti-Pescara, Italy.

INCREASED VASCULAR WALL ENDOTHELIAL NITRIC OXIDE SYNTHASE (eNOS) LEVELS IN UMBILICAL CORDS FROM GESTATIONAL DIABETIC WOMEN.

Di Fulvio P.¹⁻², Di Silvestre S.¹⁻², Di Tomo P.¹⁻², Giardinelli A.¹⁻², La Sorda R.¹, Di Pietro N.¹⁻², Formoso G.¹⁻², Capani F.², Piantelli M.¹, Consoli A.¹⁻², Pandolfi A.¹⁻³.

¹ Aging Research Center, Ce.S.I., G. d'Annunzio University Foundation; ² Department of Medicine and Aging Science, University G. d'Annunzio; ³ Department of Biomorphology, University G. d'Annunzio Chieti-Pescara, Italy.

THE TRB3 R84 VARIANT IMPAIRS INSULIN SIGNALING-MEDIATED NITRIC OXIDE PRODUCTION IN HUMAN UMBILICAL VEIN ENDOTHELIAL CELLS.

Di Silvestre S.¹, Formoso G.¹, Andreozzi F.², Prudente S.³, Hribal M.L.², Trischitta V.³, Consoli A.¹, Sesti G.² and Pandolfi A.¹.

¹ Aging Research Center, Ce.S.I., "G. d'Annunzio" University Foundation, Department of Biomorphology, ² Clinical and Experimental Medicine, University "Magna Graecia", Catanzaro and ³ Mendel Institute, Roma.

A TREATMENT WITH NITRIC OXIDE THAT INCREASES MESOANGIOBLAST THERAPEUTIC EFFICACY IN MUSCULAR DYSTROPHY

Sestina Falcone^{1,4,5}, Clara Sciorati¹, Cristiana Perrotta¹, Beatriz G. Galvez¹, Silvia Brunelli^{1,2}, Giulio Cossu^{1,3} and Emilio Clementi^{1,4,5}

¹Stem Cell Research Institute, H. San Raffaele Scientific Institute, 20132, Milan, Italy. ²Dept. of Experimental, Environmental Medicine and Medical Biotechnology, University of Milano-Bicocca, 20052 Monza, Italy; ³Dept. of Biology, University of Milano, 20130 Milan, Italy; ⁴E. Medea Scientific Institute, 23842 Bosisio Parini, Italy; ⁵Dept. of Preclinical Sciences, University of Milano, 20157 Milan, Italy.

AMPHIPHILE NO-DONOR ANTIOXIDANTS AS POLYVALENT DRUGS

Marini E., Lazzarato L., Chegaev K., Fruttero R., Gasco A.

Dipartimento di Scienza e Tecnologia del Farmaco, Università degli Studi di Torino, Via Pietro Giuria 9, 10125 Torino, Italy

ROLE OF INTRACELLULAR Ca²⁺ AND CALMODULIN/MEK/ERK MITOGEN-ACTIVATED PROTEIN KINASE SIGNALLING PATHWAY IN THE MITOGENIC AND ANTIMITOGENIC EFFECT OF NITRIC OXIDE IN GLIA - AND NEURON-DERIVED CELL LINES.

Meini A., *Garcia J.B., *Pessina G.P., *Aldinucci C., Frosini M. and Palmi M.

Dipartimento di Scienze Biomediche, Università di Siena, via A. Moro 2, 53100 Siena, Italy. *Dipart. di Fisiologia, Università di Siena, via A. Moro 2, 53100 Siena, Italy

PEROXYNITRITE-INDUCED DAMAGE OF RED BLOOD CELLS: MECHANISMS FOR SELECTING BETWEEN SENESCENCE AND ACTIVATION OF APOPTOSIS

Metere A^S, Pietraforte D^S, Matarrese P^o, Straface E^o, Gambardella L^o, Scorza G^S, Malorni W^o and Minetti M^S

^SDepartments of Cell Biology and Neurosciences and ^oDrug Research and Evaluation, Istituto Superiore di Sanità, Viale Regina Elena 299, 00161, Roma, Italy.

ROLE OF NO/Ca²⁺/CaM/MAPK SIGNALLING PATHWAY IN THE MITOGENIC EFFECT OF IL-1 β IN C6 GLIOMA CELLS

Sticozzi C., Meini A. and Palmi M

Department of Biomedical Sciences, University of Siena, via Aldo Moro 2, 53100 Siena.

NITRIC-OXIDE SCAVENGING PROPERTIES OF COBALT(II) AND MANGANESE(II) COMPLEXES WITH A POLYAMINE-POLYCARBOXYLATE LIGAND

¹Bencini A., ²Failli P., ¹Valtancoli B., ³Bani D.

Depts. of: ¹Chemistry, ²Preclinical & Clinical Pharmacology, ³Anatomy, Histology & Forensic Medicine, University of Florence, Italy.

5-HYDROXYTRYPTAMINE CONTROL OF NITRIC OXIDE-MEDIATED COMMUNICATION IN RAT CEREBELLAR CORTEX

Cervetto C.¹, Marcoli M.¹, Paluzzi P.¹, Guarnieri S.¹, Oliveri D.², Candiani S.², Pestarino M.², Maura G.^{1,3}

¹Dipartimento di Medicina Sperimentale, Sezione di Farmacologia e Tossicologia, Università di Genova, Viale Cembrano 4, 16148 Genova, Italy; ²Dipartimento di Biologia, Università di Genova, Viale Benedetto XV 5, 16132 Genova, Italy; ³Centro di Eccellenza per la Ricerca Biomedica, Università di Genova, Italy

EFFECTS OF MUD-THERAPY AND CHONDROITIN-SULFATE ON SERUM NO LEVELS IN MICE

^{1,2}COSTANTINO M., ¹LAMPA E., ¹FILIPPELLI A.

¹Department of Experimental Medicine-Pharmacological Division, II University of Naples-Italy;

²CE.RI.S.T. (Center of Thermal Researches and Studies srl), Naples, Italy

MODULATION OF THE NO-RELEASING PROPERTIES THROUGH SLIGHT STRUCTURAL VARIATIONS ON NO-DONOR LINKERS.

Martelli A.¹, Calderone V.¹, Rapposelli S.², Digiacoio M.², Balsamo A.²

¹Dipartimento di Psichiatria, Neurobiologia, Farmacologia e Biotecnologie, Università di Pisa, via Bonanno 6, I-56126 Pisa, Italy.

²Dipartimento di Scienze Farmaceutiche, Università di Pisa, via Bonanno 6, I-56126 Pisa, Italy.

NO-DONORS ANTIAGGREGANT EFFECT: THE CONTRIBUTION OF cGMP-DEPENDENT AND cGMP-INDEPENDENT PATHWAYS

Priora R., Margaritis A., Frosali S., Summa D., Di Giuseppe D., Di Simplicio P.

Neuroscience Department, Pharmacology Unit, University of Siena

L-NAME REVERSES QUINOLINIC ACID-INDUCED TOXICITY IN RAT CORTICOSTRIATAL SLICES: INVOLVEMENT OF SRC FAMILY KINASES

Alessio Metere†, Cinzia Mallozzi†, Alberto Martire*, Maria Rosaria Domenici*, Patrizia Popoli* and A.M.Michela Di Stasi†

†Department of Cell Biology and Neuroscience, *Department of Drug Research and Evaluation - Istituto Superiore di Sanità, Viale Regina Elena, 299-00161 Rome, Italy

INHIBITION OR KNOCK OUT OF INDUCIBLE NITRIC OXIDE SYNTHASE RESULT IN RESISTANCE TO BLEOMYCIN-INDUCED LUNG INJURY.

^{1,2}Tiziana Genovese, ¹Emanuela Mazzon, ^{1,2}Rosanna Di Paola, ³Maria Angela Sortino, ⁴Carlo Cancheri and

^{1,2}Salvatore Cuzzocrea

¹Department of Clinical and Experimental Medicine and Pharmacology, Torre Biologica, Policlinico

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³Department of Experimental and Clinical Pharmacology, University of Catania, Catania, Italy;
⁴Department of Internal and Specialistic Medicine, Section of Respiratory Diseases, University of Catania, Catania, Italy;

ARACHIDONIC ACID PREVENTS AN OTHERWISE EARLY FORMATION OF TOXIC LEVELS OF PEROXYNITRITE IN RAT ASTROCYTES STIMULATED WITH LIPOPOLYSACCHARIDE AND INTERFERON- γ

Palomba L. and Cantoni O.

Istituto di Farmacologia e Farmacognosia, Università degli Studi di Urbino "Carlo Bo", Via S.Chiana, 27, 61029 Urbino (PU).

ENFORCED INHIBITION OF COMPLEX III ENHANCES PEROXYNITRITE-DEPENDENT FORMATION OF REACTIVE OXYGEN SPECIES AND LEADS TO MITOCHONDRIAL PERMEABILITY TRANSITION VIA Ca^{2+} -INDEPENDENT MECHANISMS

Guidarelli A., Cerioni L. and Cantoni O.

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