

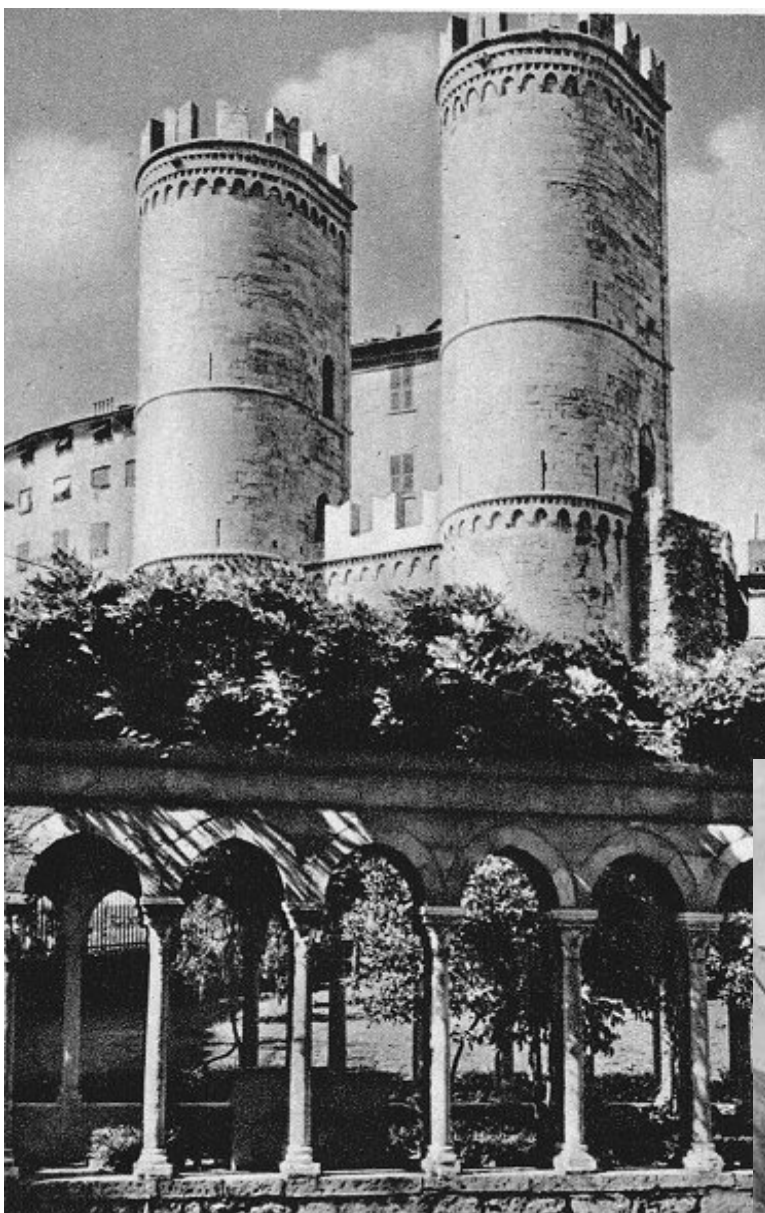


Società Italiana di Farmacologia
Società Italiana di Neuropsicofarmacologia



XII Convegno monotematico

Nicotina:
Neurobiologia e Neuropsicofarmacologia



UNIVERSITA' DEGLI STUDI DI GENOVA

Genova
5 Giugno 2006
Centro Congressi IST CBA
Ospedale S. Martino



SCIENTIFIC PROGRAM

MEETING VENUE

Auditorium Centro Congressi IST – CBA, Ospedale San Martino
Largo Rosanna Benzi 10, Genova

SCIENTIFIC COMMITTEE

President Mario Marchi, Università di Genova
Maurizio Raiteri, Università di Genova
Giovanni Biggio, Università di Cagliari
Walter Fratta, Università di Cagliari
Giorgio A. Racagni, Università di Milano

ORGANIZING COMMITTEE and SECRETARY

Mario Marchi
Ernesto Fedele
Anna Pittaluga
Massimo Grilli
Monica Parodi
Laura Patti
Luca Raiteri
Dipartimento di Medicina Sperimentale (DiMeS)
Sezione Farmacologia e Tossicologia
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marchi@pharmatox.unige.it](http://www.pharmatox.unige.it/marchi@pharmatox.unige.it)

SCIENTIFIC INFORMATIONS

Oral Communications

Oral communications (preferentially in English) will last 20 min including discussion. Material for videoprojection (Power point) should be given to the Meeting Secretariat (at Auditorium Centro Congressi IST, CBA, Ospedale San Martino, Largo Rosanna Benzi, 10 Genova) in the the early morning of June.5th

Posters

Posters, 80 cm wide and 120 cm high, (preferentially in English) should be exhibited in the Poster Area before the beginning of the meeting (the early morning of June.5th).

REGISTRATION

Registration desk will be open from 8:00 to 9:00 a.m. of the 5th of June

The participation to the Scientific Meeting is free of charge.

The SIF Secretary will be open all the Meeting time.

Certificate of Attendance.

On request a certificate of attendance will be available.

At the end of the Meeting the Scientific Committee will assign a Prize as best contribution (Oral and Poster presentation)

SCIENTIFIC PROGRAM

9:00-9:20 Opening of the meeting

M. Marchi, President Scientific Committee
G. Bignardi, President of The University of Genoa
G. Biggio, President of the Italian Society of Pharmacology
G. Racagni, President of the Italian Society of Neuropsychopharmacology

9:20-10:15 Plenary Lecture

Presented by Prof. Mario Marchi
Prof. Susan Wonnacott (Bath, UK)
**“NEURONAL NICOTINIC RECEPTORS: MODULATORS OF BRAIN
FUNCTION”**

10:15-11:30 Oral Communications

Chairpersons: F. Clementi (Milano), G. Biggio (Cagliari)

HETEROGENEITY AND COMPLEXITY OF NATIVE NEURONAL NICOTINIC RECEPTORS

Francesco Clementi and Cecilia Gotti. CNR Institute of Neuroscience, Cellular and Molecular Pharmacology, Department of Medical Pharmacology, University of Milan, Milan, Italy

LOSS OF HIGH AFFINITY NICOTINIC RECEPTORS INCREASES THE VULNERABILITY TO EXCITOTOXIC LESION AND DECREASES THE POSITIVE EFFECTS OF AN ENRICHED ENVIRONMENT.

Alessio Zanardi, Michele Zoli

Dipartimento di Scienze Biomediche, Sezione di Fisiologia, Università di Modena e Reggio Emilia via Campi 287, 41100 Modena, Italy

MODULATION OF PRESYNAPTIC RECEPTORS FUNCTION BY ACUTE TREATMENT WITH NICOTINE

Marchi M.^{1,2}, Grilli M.¹, Parodi M.¹, Raiteri L.¹, Patti L.¹, Raiteri M.^{1,2}

¹Section of Pharmacology and Toxicology, Department of Experimental Medicine, University of Genoa, Italy and ²Center of Excellence for Biomedical Research, University of Genoa, Italy

THE HUMAN ADULT SUBTYPE AChR-CHANNEL HAS HIGH Ca²⁺ PERMEABILITY, PREDISPOSING TO THE ENDPLATE Ca²⁺ OVERLOADING IN SLOW-CHANNEL MYASTHENIC SYNDROME

A. Sucapane¹, S Fucile¹, C. Limatola¹, F Grassi¹, & A G. Engel², F Eusebi¹.

¹Istituto Pasteur-Fondazione Cenci Bolognetti - Dipartimento di Fisiologia Umana e Farmacologia & Centro di Eccellenza BEMM, Università “La Sapienza” P.le A. Moro 5; I-00185 Roma, Italy

²Muscle Research Laboratory, Mayo Clinic, Rochester, Minnesota 55905, USA

11:30-11.45 Coffee break

11:45-13:15 Oral Communications

Chairpersons: G. Racagni (Milano), M. Raiteri (Genova)

EFFECT OF NICOTINE ON BRAIN METABOLISM: AN IN VIVO NON INVASIVE NEAR INFRARED SPECTROSCOPY ANALYSIS IN RODENTS

F. Crespi¹, A. Bandera², M. Donini², L. Rovati², C. Heidbreder¹

¹Biology, Psychiatry CEDD, GlaxoSmithKline, Verona (Italy).

²Department of Information Engineering² University of Modena and Reggio Emilia (Italy).

SEROTONIN MEDIATES BENEFICIAL EFFECTS OF HYPERICUM PERFORATUM ON NICOTINE WITHDRAWAL SIGNS

C. Mannucci^a, A. Pieratti^a, F. Firenzuoli^b, A. Crupi^c, A.P. Caputi^a, G. Calapai^{a*}

^aDepartment of Clinical and Experimental Medicine and Pharmacology, Section of Pharmacology, School of Medicine, University of Messina

^bService of Phytotherapy, Ospedale S. Giuseppe ASL N. 11 Empoli

^cPharmalife-Research, Calolziocorte (LC)

B2-SUBUNIT-CONTAINING NICOTINIC ACETYLCHOLINE RECEPTORS IN THE VTA ARE NECESSARY AND SUFFICIENT FOR INTRAVENOUS NICOTINE SELF-ADMINISTRATION IN DRUG NAIVE MICE

Fattore L., ²Pons S., ³Cossu G., ²Tolu S., ²Changeux JP, ²Maskos U, ^{1,3}Fratta W

¹Institute of Neuroscience, National Research Council CNR; ²Unité Récepteurs et Cognition, URA CNRS 2182, Institut Pasteur, Paris, France; ³Department of Neuroscience, University of Cagliari, Italy.

CLINICAL AMBULATORY TREATMENT OF DEPENDENCE PRODUCED BY NICOTINE

Grossi S.^a, Carrozzino R.^b, Martelli A.^a

^aDepartment of Internal Medicine, Pharmacology and Toxicology Unit, University of Genoa, and

^bSERT of ASL2, Savona.

13:15-14:30 Lunch

14:30-16.30 Poster Session and Discussion

Chairpersons: W.Fratta (Cagliari), F.Eusebi (Roma), M.Zoli (Modena)

16.30-17.00 Concluding remarks. End of the meeting

POSTER SESSION

1. EFFECTS OF NICOTINE ON HUMAN MONOCYTE/MACROPHAGES IN SMOKERS AND NON-SMOKERS.

Bardelli C., Amoruso A., Gunella G., Fresu LG. & Brunelleschi S.

Dept. of Medical Sciences, School of Medicine, University "A. Avogadro", Novara, Italy

2. BACLOFEN ANTAGONIZES REINSTATEMENT OF NICOTINE CONDITIONED PLACE PREFERENCE IN C57BL/6 MICE

Cossu G.¹; Fadda P.¹; Fattore L.^{1,2}; Fratta W.^{1,2}

1-Department of Neuroscience and Centre of Excellence "Neurobiology of Dependence", Cittadella Universitaria di Monserrato, University of Cagliari, Italy.

2- Institute of Neuroscience, National Research Council CNR, Section of Cagliari, Italy

3. THE EFFECTS OF THE EXTRACELLULAR MATRIX PROTEOGLYCAN AGRIN ON NICOTINE -INDUCED EXPRESSION OF TRANSCRIPTION FACTORS IN RAT HIPPOCAMPAL NEURONS IN CULTURE

Di Chio M., Tedesco V., Cantù C., Chiamulera C., Fumagalli G.

Section of Pharmacology, Dept. of Medicine & Public Health, University of Verona

P.le Scuro, 10, 37134 Verona

4. EFFECT OF CHRONIC NICOTINE TREATMENT ON THE EXPRESSION OF IONOTROPIC RECEPTOR IN PRIMARY HIPPOCAMPAL AND CORTICAL NEURONS

Gaimarri A., Riganti L., Tonna N., Sala C., Clementi F., Gotti C, CNR, Istituto di Neuroscienze, Farmacologia Cellulare e Molecolare, Centro di Eccellenza per Malattie Neurodegenerative, Università di Milano, Milano

5. 5-HYDROXYINDOLE AND KYNURENIC ACID: EFFECTS ON THE $\alpha 7$ AND NON $\alpha 7$ NICOTINIC RECEPTORS FUNCTION

Grilli M.¹, Raiteri L.¹, Patti L.¹, Parodi M.¹, Zappettini S.¹, Pittaluga A.¹, Raiteri M.^{1,2}, Marchi M.^{1,2}

¹ Section of Pharmacology and Toxicology, Department of Experimental Medicine, University of Genoa, Italy and ²Center of Excellence for Biomedical Research, University of Genoa, Italy

6. NICOTINIC AND MUSCARINIC PRESYNAPTIC RECEPTORS SINERGICALLY MODULATE DOPAMINE RELEASE FROM SYNAPTOSOMES OF RAT NUCLEUS ACCUMBENS

Grilli M.¹, Parodi M.¹, Patti L.¹, Marchi M.^{1,2}

¹ Section of Pharmacology and Toxicology, Department of Experimental Medicine, University of Genoa, Italy and ²Center of Excellence for Biomedical Research, University of Genoa, Italy

7. EXPRESSION OF P75 NEUROTROPHIN RECEPTOR IN PRIMARY RAT CEREBRAL CORTEX CELL CULTURE TREATED WITH NICOTINE

Johansson J., Formaggio E., Chiamulera C., Fumagalli G.

Section of Pharmacology, Dept. of Medicine & Public Health, University of Verona

P.le Scuro, 10, 37134 Verona

8. ELECTROPHYSIOLOGY OF NEURONAL NICOTINIC RECEPTORS OF NEONATAL RAT HYPOGLOSSAL MOTONEURONS

Lamanauskas N., Nistri A.

Neurobiology Sector, International School for Advanced Studies (SISSA),
Via Beirut 4, 34014 Trieste, Italy.

9. DIPENDENZA DA NICOTINA COME PREDITTORE DI ABUSO DI SOSTANZE NEGLI ADOLESCENTI: DALLA NEUROBIOLOGIA ALLA PSICOPATOLOGIA

ML. Onor, A. Padovan Lang, M. De Vanna, E. Aguglia

U.C.O. di Psichiatria, Dipartimento Scienze Cliniche, Tecnologiche e Morfologiche
Università degli Studi di Trieste

10. RESTRAINT STRESS PREVENTS NICOTINE-INDUCED DOPAMINERGIC ACTIVATION. MICRODIALYSIS AND ELECTROPHYSIOLOGY.

Panin F.^a, Sirca D.^b, Lintas A.^a, Mereu M.^b, Peana A.T.^a, Palazzolo G.^a, Enrico P.^b, and Diana M.^a

^a Dipartimento di Scienze del Farmaco, ^b Dipartimento di Scienze Biomediche - Università degli Studi di Sassari

11. FUNCTIONAL CO-EXISTENCE OF NICOTINIC AND mGluR5 PRESYNAPTIC RECEPTORS ON DOPAMINERGIC TERMINALS FROM RAT NUCLEUS ACCUMBENS

Parodi M.¹, Grilli M.¹, Patti L.¹, Sofianos I.¹, Raiteri M.^{1,2} and Marchi M.^{1,2}

¹ Section of Pharmacology and Toxicology, Department of Experimental Medicine, University of Genoa, Italy and ² Center of Excellence for Biomedical Research, University of Genoa, Italy

12. $\alpha 7$ NICOTINIC RECEPTOR MODULATE [³H]D-ASPARTATE RELEASE FROM MOUSE NEOCORTICAL GLIOSOMES

Patti L.¹, Raiteri L.¹, Grilli M.¹, Parodi M.¹, Robino F.¹, Raiteri M.^{1,2} and Marchi M.^{1,2}

¹ Section of Pharmacology and Toxicology, Department of Experimental Medicine, University of Genoa, Italy and ² Center of Excellence for Biomedical Research, University of Genoa, Italy

13. REGULATION of NEURONAL nAChRs in NEUROBLASTOMA CELLS AFTER LONG-TERM EXPOSURE TO THE NEW NICOTINIC ANTAGONIST 1,2-CYTISINYLETHANE

L.Riganti¹, A.Gaimarri¹, C.Matteoni², S. DiAngelantonio², A.Nistri², F.Sparatore³, C.Canu-Boido³, F.Clementi¹ and C.Gotti¹

¹ CNR, Institute of Neuroscience, Cellular and Molecular Pharmacology, Center of Excellence on Neurodegenerative Diseases, University of Milano, Milano, Italy

² Neurobiology Sector, International School for Advanced Studies (SISSA), Trieste, Italy
³ Department of Pharmaceutical Science, University of Genova, Genova, Italy

14. INFLUENCE OF A LOW DOSE OF NICOTINE ON THE ELEVATED PLUS-MAZE TEST IN THE RAT: INVOLVEMENT OF SEROTONIN IN THE CNS

Ruggieri V., Vitale G., Ottani S., Sandrini M.

Section of Pharmacology, Biomedical Science Department, University of Modena and Reggio E.
Via G. Campi 287 - MODENA

15. N-(ARYLALKYL)- AND N-(AROYLALKYL)-CYTISINES AS LIGANDS FOR NEURONAL NICOTINIC ACETYLCHOLINE RECEPTOR SUBTYPES

Tasso B.,¹ Canu C.,¹ Terranova E.,¹ Sparatore F.,¹ Gotti C.,² Clementi F.,² Artali R.,² Bombieri G.,³ Meneghetti F.,³ Marchini N.³

¹Dip. di Scienze Farmaceutiche - Università di Genova

²CNR, Ist. di Neuroscienze e Dip. di Farmacologia Medica - Università di Milano

³Ist. di Chimica Farmaceutica e Tossicologica - Università di Milano

16. ANTIHYPERALGESIC EFFECT OF NICOTINE IN MODELS OF NEUROPATHIC PAIN

Vivoli E., Aiazzi M., Galeotti N., Ghelardini C.

Department of Pharmacology, University of Florence, Viale Pieraccini 6 50136 Florence, Italy