INTERNATIONAL PhD PROGRAM IN NEUROSCIENCE
UNIVERSITY OF CATANIA

SUMMER SCHOOL OF NEUROSCIENCE (12)
Dodicesima Scuola Estiva di Neuroscienze (12)

UNDER THE AUSPICES
OF THE FEDERATION OF EUROPEAN PHARMACOLOGICAL SOCIETIES
(EPHAR)
THE ITALIAN SOCIETY OF PHARMACOLOGY
(SIF)
AND THE ITALIAN SOCIETY OF NEUROPSYCHOPHARMACOLOGY
(SINPF)

28 June-4 July, 2014

DOPAMINE

In memoriam of
Professor Umberto Scapagnini

Catania
Aula Magna
Palazzo Centrale dell’Università
Piazza Università, 2
Chairman
Filippo Drago (Catania)

Scientific Secretariat
Filippo Caraci (Catania)

International Scientific Committee

Pier Luigi Canonico (Novara)
Giovanni Marsicano (Bordeaux)
Giancarlo Pepeu (Florence)
Pier Vincenzo Piazza (Bordeaux)
Giorgio Racagni (Milan)
Francesco Rossi (Naples)
Maria Angela Sortino (Catania)
Umberto Spampinato (Bordeaux)

Local Scientific Committee

Claudio Bucolo (Catania)
Gian Marco Leggio (Catania)
Salvatore Salomone (Catania)
Saturday June 28th, 2014

14.00-14.45  Registration

14.45-15.00  Opening remarks
Filippo Drago (Catania)

15.00-16.00  Opening lecture *(introduced by Filippo Drago)*
Dopamine and psychosis
Susan George (Canada)

Dopamine in CNS disorders: genetics and epigenetics
*Introduced and moderated by Franco Rossi (Italy)*

16.00-17.00  Genetics of dopamine receptors and drug addiction
Nicolas Ramoz (France)

17.00-18.00  Dopaminergic system and addiction: role of epigenetics
Robert Cristopher Pierce (USA)

18.00-18.30  Discussion
Sunday June 29th, 2014

**Dopamine receptors**
*Introduced and moderated by Giorgio Racagni (Italy)*

10.00-11.00  The neurobiology of dopamine receptors: evolution from the dual concept to heterodimer complexes  
*Cristina Missale (Italy)*

11.00-12.00  Homology modeling and molecular dynamics of dopamine receptors: novel tools for drug discovery  
*Lei Shi (USA)*

12.00-12.30  Discussion

12.30-13.30  Sponsored lecture

**Dopaminergic system: from neurobiology to drug development**
*Introduced and moderated by Salvatore Salomone (Italy)*

16.00-17.00  Reward system and addiction: the role of dopamine  
*Gaetano Di Chiara (Italy)*

17.00-1800  Functional brain imaging of dopaminergic system  
*Alain Dagher (Canada)*

18.00-18.30  Discussion

18.30-19.30  Functionally selective signaling at the D2 Dopamine Receptor: implications for drug development  
*John A. Allen (USA)*

19.30-19.40  Questionnaire
Monday June 30th, 2014

**Dopaminergic system in addiction**  
*Introduced and moderated by Giancarlo Pepeu (Italy)*

10.00-11.00  Molecular and cellular mechanisms of dopamine-mediated behavioral plasticity in the striatum  
*Riccardo Brambilla (Italy)*

11.00-12.00  Role of dopamine in learning and addiction - findings from single cells and neuroimaging  
*Philipp N. Tobler (Switzerland)*

12.00-13.00  Serotonin-dopamine interaction in drug addiction  
*Umberto Spampinato (France)*

12.00-12.30  Discussion

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**Dopamine and addiction: from neurobiology to drug development**  
*Introduced and moderated by Gaetano Di Chiara (Italy)*

16.00-17.00  Transition to cocaine addiction: in search for relevant psychobiological correlates  
*Veronique Deroche-Gamonet (France)*

17.00-18.00  Translational strategies for therapeutic development in nicotine addiction: Rethinking the conventional bench to bedside approach  
*Bernard Le Foll (Canada)*

18.00-18.30  Discussion

18.30-19.30  Evidence-based pharmacological treatment of substance use disorders  
*Fabrizio Schifano (United Kingdom)*

19.30-19.40  Questionnaire
Tuesday July 1st, 2014

Dopamine in Schizophrenia: from endophenotypes to new animal models
Introduced and moderated by Umberto Spampinato (France)

10.00-11.00 Drug discovery in schizophrenia: realistic expectations of prepulse inhibition in translational models
Neil Dawson (United Kingdom)

11.00-12.00 Mouse models of genetic effects on cognition: role of dopamine pathways
Francesco Papaleo (Italy)

12.00-12.30 Discussion

12.30-13.30 Sponsored lecture

Dopaminergic system in Schizophrenia: pharmacological perspectives
Introduced and moderated by Eugenio Aguglia (Italy)

16.00-17.00 Cognitive effects of second-generation antipsychotics: current insights into neurochemical mechanisms
Marco Riva (Italy)

17.00-18.00 Serotonin-glutamate and serotonin-dopamine reciprocal interactions as putative molecular targets for novel antipsychotic treatments
Andrea De Bartolomeis (Italy)

18.00-18.30 Discussion

18.30-19.30 Role of Dopamine D3 receptor as a new pharmacological target for the treatment of schizophrenia
Pierre Sokoloff (France)

19.30-19.40 Questionnaire
Wednesday July 2\textsuperscript{nd}, 2014

**Dopaminergic system in ocular pharmacology: implications for drug discovery**  
*Introduced and moderated by Claudio Bucolo (Italy)*

10.00-11.00  Dopamine and intraocular pressure: implications for optic neuropathy  
Jeff Kiel (USA)

11.00-12.00  Effects of dopamine on retinal blood flow  
Leopold Schmetterer (Austria)

12.00-12.30  Discussion

12.30-13.30  Sponsored lecture

**Dopamine and Parkinson’s disease**  
*Introduced and moderated by Mario Zappia (Italy)*

16.00-17.00  Dopaminergic system in PD: evidence from animal models  
Fabio Blandini (Italy)

17.00-18.00  Targeting inflammatory pathways to protect DA neurons in PD  
Malù G. Tansey (USA)

18.00-18.30  Discussion

18.30-19.30  Neuroprotective therapies in PD: bad or good news?  
M. Angela Cenci-Nilsson (Sweden)

19.30-19.40  Questionnaire
Thursday July 3rd, 2014

Dopamine and the neuroendocrine system
Introduced and moderated by Maria Angela Sortino (Italy)

10.00-11.00  Hormonal modulation of central dopaminergic transmission: the role of prolactin
Filippo Drago (Italy)

11.00-12.00  Role of the dopaminergic system in the physiological and pathological regulation of the HPA axis
Annamarie Colao (Italy)

12.00-12.30  Discussion

12.30-13.30  Sponsored lecture

Poster session for PhD students in Neuroscience
Introduced by Claudio Bucolo, Filippo Caraci, Salvatore Salomone and Umberto Spampinato

16.00-19.00

Friday July 4th, 2014

Dopamine and neuropsychiatric disorders
Introduced and moderated by Filippo Caraci (Italy)

10.00-11.00  The dopaminergic system in ADHD: current options and new avenues
Alessandro Zuddas (Italy)

11.00-12.00  Dopamine system and the treatment of bipolar disorder: role of antipsychotics
Andrea Fagiolini (Italy)

12.00-13.00  Dopamine and incentive salience: novel treatment strategies for major depression
George I. Papakostas (USA)

12.00-12.15  Discussion

13.15-13.30  Closing remarks
Filippo Drago (Catania)

13.30-14.00  Questionnaire