

39° Congresso Nazionale della Società Italiana di Farmacologia



SOCIETÀ ITALIANA DI FARMACOLOGIA

RICERCA
INNOVAZIONE
SOSTENIBILITÀ
APPROPRIATEZZA
FORMAZIONE

PRELIMINARY PROGRAM



FIRENZE **20-23** NOVEMBRE 2019

PALAZZO DEI CONGRESSI

AUDITORIUM

17.00 PLENARY LECTURE

18.00 Introduced by: **Alessandro Mugelli** (Florence)

Hematopoietic cell gene therapy: recent developments and prospective applications from gene transfer to targeted gene editing
Luigi Naldini (Milan)

18.00 ROUND TABLE: THE VALUE OF CAR-T CELLULAR THERAPY

19.30 *with an unconditioned educational support*

Chairpersons: **Renato Bernardini** (Catania), **Amelia Filippelli** (Salerno)

Participants

Antonio Gaudio (Rome)

Armando Genazzani (Novara)

Luca Li Bassi (Rome)

Franco Locatelli (Rome)

Simona Montilla (Rome)

Riccardo Palmisano (Bresso)

Riccardo Saccardi (Florence)

SALA ONICE

14.00 ORAL COMMUNICATIONS

16.00 BASIC AND CLINICAL RESEARCH

Chairpersons: **Antonella De Angelis** (Naples), **Antonella Liantonio** (Bari)

- 14.00 Relationship between plasma levels of proprotein convertase subtilisin/kexin type 9 (PCSK9), vascular events and markers of subclinical atherosclerosis: results from the IMPROVE study

Daniela Coggi¹, **Massimiliano Ruscica¹**, **Mauro Amato¹**, **Beatrice Frigerio¹**, **Daniela Sansaro¹**, **Alessio Ravani¹**, **Fabrizio Veglia¹**, **Alice Bonomi¹**, **Elena Tremoli¹**, **Nicola Ferri²**, **Damiano Baldassarre¹** (¹Milan, ²Padua)

- 14.10 The *in vitro* re-constructed hepatic microenvironment boosts up the metastatic features of HCT-116 colorectal cancer cells

Alberta Bergamo, **Sabrina Pacor**, **Emiliana Giacomello**, **Gianni Sava** (Trieste)

- 14.20 Ultrasound-mediated activity by various metal-porphyrin complexes in human colon cancer and fibroblast cells

Roberto Canaparo¹, **Vanessa Pinelli¹**, **Federica Foglietta¹**, **Patrizia Panzanelli¹**, **Gianni Durando¹**, **Giampiero Muccioli¹**, **Francesca Giuntini²**, **Loredana Serpe¹** (¹Turin, ²Liverpool - United Kingdom)

- 14.30 Effects of various anticoagulants on therapeutic drug monitoring of β -lactam antibiotics using a dried blood spot microsampling-liquid chromatography tandem mass spectrometry assay

Valentina Giudice, **Carmela Conte**, **Rita Corbisiero**, **Amelia Filippelli**, **Fabrizio Dal Piaz**, **Viviana Izzo** (Salerno)

- 14.40 *In vivo* ultrasonographic evaluation of muscle function and structure in animal models of muscular dystrophy and aging sarcopenia: a new approach to assess disease progression and pharmacological efficacy

Antonietta Mele, **Paola Mantuano**, **Francesca Sanarica**, **Adriano Fonzino**, **Francesco Rana**, **Diana Conte**, **Domenico Tricarico**, **Annamaria De Luca** (Bari)

- 14.50 C-reactive protein and immature platelet fraction contribute to poor responsiveness to low-dose aspirin and persistent *in vivo* platelet activation in polycythemia vera

Giovanna Petrucci¹, **Viviana Cavalca²**, **Alfredo Dragani³**, **Benedetta Porro²**, **Paola Ranalli³**, **Elena Tremoli²**, **Carlo Patrono¹**, **Bianca Rocca¹** (¹Rome, ²Milan, ³Pescara)

- 15.00 Role of NF-kappaB/c-Rel in Parkinson's Disease

Vanessa Porrini¹, **Annamaria Lanzillotta¹**, **Andrea Pilotto¹**, **Antonella Alberici¹**, **Alessandro Padovani¹**, **Angelo Antonini²**, **Arianna Bellucci¹**, **Marina Pizzi¹** (¹Brescia, ²Venice)

SALA ONICE

14.00 ORAL COMMUNICATIONS

16.00 BASIC AND CLINICAL RESEARCH (cont.)

- 15.10 Enhanced expression of the sphingosine 1-phosphate receptor 3 causes acute myelogenous leukemia in mice

Samuel Vorbach¹, Fengbiao Zhou², Albert Gründer¹, Manuela Simoni³, Laura Riccetti³, Peter Valk⁴, Mathijs Sanders⁴, Carsten Müller-Tidow², Jerzy-Roch Nofer⁵, Heike Pahl¹, Francesco Poti⁶ (¹Freiburg - Germany, ²Heidelberg - Germany, ³Modena, ⁴Rotterdam - The Netherlands, ⁵Münster - Germany, ⁶Parma)

- 15.20 Role of amyloid- β precursor protein in maintaining vascular stability and blood brain barrier integrity in response to stress factors

Emma Ristori, Sandra Donnini, Marina Ziche (Siena)

- 15.30 Failure of low-dose aspirin to affect enhanced extraplatelet prostanoid biosynthesis *in vivo* in Familial Adenomatous Polyposis patients

Stefania Tacconelli¹, Annalisa Contursi¹, Matteo Mucci¹, Lorenza Falcone¹, Elena Piazzuelo², Carlos Sostres², Patrizia Ballerini¹, Angel Lanas², Paola Patrignani¹ (¹Chieti, ²Zaragoza - Spain)

- 15.40 Validation of limited sampling strategy for estimating mycophenolic acid area under the curve in heart transplant recipients

Pier Giorgio Cojutti, Vincenzo Tursi, Sandro Sponga, Ugolino Livi, Federico Pea, Massimo Baraldo (Udine)

- 15.50 A new platform for patient-based preclinical tests in muscular dystrophies: first steps towards an optogenetic engineered 3D artificial muscle

Ornella Cappellari, Francesca Sanarica², Dominic Wells³, Annamaria De Luca² (¹Manchester - United Kingdom, ²Bari, ³London - United Kingdom)

SALA VERDE

14.00 ORAL COMMUNICATIONS

16.00 PHARMACOVIGILANCE AND REAL WORLD EVIDENCE

Chairpersons: **Emanuel Raschi** (Bologna), **Alfredo Vannacci** (Florence)

14.00 Post-marketing safety of sacubitril/valsartan: emerging signals from the FDA Adverse Event Reporting System

Emanuel Raschi, **Ippazio Cosimo Antonazzo**, **Elisabetta Poluzzi**, **Fabrizio De Ponti** (Bologna)

14.10 Molecular mechanisms underlying the association between hydrochlorothiazide use and the risk of non-melanoma skin cancers

Elisabetta Bigagli, **Lorenzo Cinci**, **Mario D'Ambrosio**, **Astrid Parenti**, **Maura Lodovici**, **Alessandro Mugelli**, **Cristina Luceri** (Florence)

14.20 Computational tool for predicting drug-induced liver toxicity (DILT)

Simone Brogi, **Valentina Citi**, **Vincenzo Calderone** (Pisa)

14.30 Direct-acting oral anticoagulants (DOACs) in pregnancy: new insight from VigiBase®

Maurizio Sessa¹, **Annamaria Mascolo**¹, **Torbjörn Callréus**¹, **Annalisa Capuano**¹, **Francesco Rossi**¹, **Morten Andersen**² (¹Naples, ²Copenhagen - Denmark)

14.40 Italian emergency department visits and hospitalizations for outpatients' adverse drug events: the MEREAFaPS Study

Niccolò Lombardi¹, **Giada Crescioli**¹, **Alessandra Bettiol**¹, **Roberto Bonaiuti**¹, **Maria Parrilli**¹, **Martina Del Lungo**¹, **Linda Giovannetti**¹, **Valentina Borsi**¹, **Marco Rossi**², **Marco Tuccori**³, **Annalisa Capuano**⁴, **Alessandro Mugelli**¹, **Mauro Venegoni**⁶, **Giuseppe Vighi**⁵, **Alfredo Vannacci**¹ (¹Florence, ²Siena, ³Pisa, ⁴Naples, ⁵Vimercate, ⁶Milan)

14.50 Pillars and pitfalls of the new pharmacovigilance legislation: consequences for the identification of adverse drug reactions deriving from abuse, misuse, overdose, occupational exposure, and medication errors

Gabriella di Mauro, **Maurizio Sessa**, **Annamaria Mascolo**, **Angela Falco**, **Alessia Zinzi**, **Concetta Rafaniello**, **Liberata Sportiello**, **Cristina Scavone**, **Annalisa Capuano** (Naples)

15.00 Preventable cases of oral anticoagulant-induced bleeding: data from the spontaneous reporting system

Annamaria Mascolo, **Rosanna Ruggiero**, **Maurizio Sessa**, **Cristina Scavone**, **Pasquale Maria Berrino**, **Liberata Sportiello**, **Concetta Rafaniello**, **Annalisa Capuano** (Naples)

SALA VERDE

14.00 ORAL COMMUNICATIONS

16.00 PHARMACOVIGILANCE AND REAL WORLD EVIDENCE (cont.)

15.10 Mandatory vaccination in Sicily: adverse events in children before and after the Law 119/2017

Anna Mecchio¹, Chiara Nasso¹, Michelangelo Rottura¹, Elisa Bongiorno¹, Paola Cutroneo¹, Giulia Maria Tarabini Castellani¹, Francesca Menniti Ippolito², Edoardo Spina¹, Domenica Altavilla¹ (¹Messina, ²Rome)

15.20 Polypharmacy and drug-drug interactions at the time of admission to and discharge from a cardiac rehabilitation ward

Giuseppe Simeone, Chiara Resnati, Francesco Giallauria, Michele Arcopinto, Maddalena Illario, Antonello Cittadini, Mauro Cataldi (Naples)

15.30 Antibiotic exposure and risk of Multiple Sclerosis: a population-based case-control study in the Emilia Romagna region

Ippazio Cosimo Antonazzo, Elisa Baldin, Corrado Zenesini, Luca Vignatelli, Emanuel Raschi, Roberto D'Alessandro, Elisabetta Poluzzi (Bologna)

15.40 How much benefits and risks of new oral anticoagulants as observed in pivotal randomized clinical trials can be generalized to a real-world setting from Southern Italy?

Ylenia Ingrasciotta¹, Anna Mancuso¹, Andrea Fontana², Valentina Ientile¹, Maurizio Pastorello³, Gianluca Trifirò¹ (¹Messina, ²San Giovanni Rotondo, ³Palermo)

SALA LIMONAIA

14.00 ORAL COMMUNICATIONS

16.00 MISCELLANEOUS PHARMACOLOGY

Chairpersons: **Massimo Collino** (Turin), **Luca Gallelli** (Catanzaro)

14.00 Montelukast induces better control of symptoms and management of lung function, and decreased inflammation in women compared with men
Giuseppe Spaziano¹, Renata Esposito¹, Domenico Giannattasio², Francesco Ferrigno², Angela Liparulo¹, Antonietta Rossi¹, Fiorentina Roviezzo¹, Liberato Berrino¹, Mario Polverino², Francesca Polverino³, Bruno D'Agostino¹ (¹Naples, ²Scafati, ³Tucson - USA)

14.10 Efficacy and safety of pharmacological treatments for Patent Ductus Arteriosus closure: a systematic review and network meta-analysis of clinical trials and observational studies involving 15,725 subjects
Ettore Marconi¹, Alessandra Bettiol¹, Giuseppe Ambrosio², Vittorio Perduca³, Alfredo Vannacci¹, Stefania Troiani², Carlo Dani¹, Alessandro Mugelli¹, Ersilia Lucenteforte⁴ (¹Florence, ²Perugia, ³Paris - France, ⁴Pisa)

14.20 Salivary Advanced Glycation end Products (AGEs) as novel biomarkers in evaluation of risk factors for diet-related diseases: results from the European Network SALIVAGES
Debora Collotta¹, Fausto Chiazza¹, Raffaella Mastrocola¹, Manuela Aragno¹, Chiara Cordero¹, Erica Liberto¹, Rosa M. Sáinz², Vanesa Cepas², Aranka Ilea³, Bianca A. Boscab³, Jared Q. Gerlach⁴, Marie Le Berre⁴, Lokesh Joshi⁴, Thomas Henle⁵, Friederike Manig⁵, Michael Hellwig⁵, Massimo Collino¹ (¹Turin, ²Oviedo - Spain, ³Cluj-Napoca - Romania, ⁴Galway - Ireland, ⁵Dresden - Germany)

14.30 The NMDAR antagonist dextromethadone increases plasma BDNF levels in healthy volunteers: a phase 1 clinical study
Sara De Martin¹, Ottavio Vitolo², Galina Bernstein³, Andrea Alimonti¹, Sergio Traversa², Charles Inturrisi², Paolo Manfredi² (¹Padua, ²New York - USA, ³Toronto - Canada)

14.40 Hsa-miR-34a-5p and hsa-miR-375 as biomarkers for monitoring the effects of drug treatment for migraine pain in children and adolescents: a pilot study
Luca Gallelli¹, Erika Cione², Francesco Peltrone¹, Serena Siviglia², Stefania Zampogna¹, Vincenzo Guidetti³, Maria Cristina Caroleo², Giovambattista De Sarro¹ (¹Catanzaro, ²Cosenza, ³Rome)

14.50 Lung vasculature remodeling and inflammation in the progression of heart failure with preserved ejection fraction: effects of ranolazine
Loreta Pia Ciuffreda, Antonella De Angelis, Donato Cappetta, Anna Cozzolino, Elena Piegari, Angela Liparulo, Teresa Palmira Russo, Konrad Urbanek, Bruno D'Agostino, Flora Romano, Agostino Micciché, Francesco Rossi, Liberato Berrino (Naples)

SALA LIMONAIA

14.00 ORAL COMMUNICATIONS

16.00 MISCELLANEOUS PHARMACOLOGY (cont.)

- 15.00 Enteric alpha-synuclein inclusions, impaired intestinal permeability, enteric inflammation and colonic motor dysfunctions precede central neurodegeneration in a transgenic mouse model of Parkinson's Disease
Carolina Pellegrini¹, **Luca Antonioli¹**, **Rocchina Colucci²**, **Laura Benvenuti¹**, **Vanessa D'Antongiovanni¹**, **Lucia Rota¹**, **Fabiana Miraglia¹**, **Giovanna Testa¹**, **Simona Capsoni¹**, **Antonino Cattaneo¹**, **Emanuela Colla¹**, **Corrado Blandizzi¹**, **Matteo Fornai¹** (¹Pisa, ²Padua)
- 15.10 Cytokines IL-6, IL-8 and IL-33 as predictors of systemic inflammation in healthy smokers
Carmen Mannucci, **Fabrizio Calapai**, **Emanuela Elisa Sorbara**, **Luigi Cardia**, **Sebastiano Gangemi**, **Gioacchino Calapai** (Messina)
- 15.20 E-cigarettes induce *in vivo* toxicological effects that can raise the cancer risk
Donatella Canistro¹, **Fabio Vivarelli¹**, **Silvia Cirillo¹**, **Annamaria Buschini²**, **Mirca Lazzaretti²**, **Maria Teresa Rodriguez-Estrada¹**, **Maura Lodovici³**, **Antonello Lorenzini¹**, **Silvia Marchionni¹**, **Paola Franchi¹**, **Marco Lucarini¹**, **Moreno Paolini¹** (¹Bologna, ²Parma, ³Florence)
- 15.30 Polymorphisms in dopaminergic receptor genes and multiple sclerosis progression
Marco Ferrari¹, **Cristoforo Comi²**, **Luca Magistrelli²**, **Domizia Vecchio²**, **Sandra D'Alfonso¹**, **Franca Marino¹**, **Marco Cosentino¹** (¹Varese, ²Novara)
- 15.40 Gene editing of the intracellular immune checkpoint inhibitor AhR in cDC1 improves tumor regression
Marco Gargaro¹, **Giulia Scalisi¹**, **Giorgia Manni¹**, **Dario Nardi¹**, **Paolo Puccetti¹**, **Kenneth M. Murphy²**, **Francesca Fallarino¹** (¹Perugia, ²St. Louis - USA)
- 15.50 Two retrospective studies on gender differences: chemotherapy toxicities in patients affected by colorectal and pancreatic cancers
Silvia De Francia, **Paola Berchialla**, **Tiziana Armando**, **Silvia Racca**, **Sarah Allegra**, **Andrea Elio Sprio**, **Silvana Storto**, **Libero Ciuffreda**, **Maria Valentina Mussa** (Turin)

SALA 4

14.00 ORAL COMMUNICATIONS

16.00 INFLAMMATION PHARMACOLOGY

Chairpersons: **Stefano Bruscoli** (Perugia), **Emanuela Esposito** (Messina)

- 14.00 GPBAR1 functions as gatekeeper for liver NKT cells and provides counter regulatory signals in autoimmune hepatitis

Michele Biagioli¹, **Adriana Carino**¹, **Chiara Fiorucci**¹, **Silvia Marchianò**¹, **Margherita Magro**¹, **Eleonora Distrutti**², **Oxana Bereshchenko**³, **Paolo Scarpelli**⁴, **Angela Zampella**², **Stefano Fiorucci**¹ (¹Perugia, ²Naples)

- 14.10 IL-17A neutralizing antibody regulates monosodium urate crystal-induced gouty inflammation

Federica Raucci¹, **Asif J. Iqbal**², **Paola Minosi**³, **Gian Marco Casillo**¹, **Anella Saviano**¹, **Marina Russo**¹, **Stefano Pieretti**³, **Nicola Mascolo**¹, **Francesco Maione**¹ (¹Naples, ²Birmingham - United Kingdom, ³Rome)

- 14.20 Leukocyte integrin antagonists as a novel option to treat dry age-related macular degeneration

Monica Baiula, **Alberto Caligiana**, **Giulia Martelli**, **Daria Giacomini**, **Luca Gentilucci**, **Santi Spampinato** (Bologna)

- 14.30 The pharmacological inhibition of caspase-1- does not revert Particulate Matter (PM)-induced lung immunosuppression in mice

Chiara Colarusso¹, **Michela Terlizzi**¹, **Fiorentina Roviezzo**², **Ida Cerqua**², **Giuseppe Cirino**², **Aldo Pinto**¹, **Rosalinda Sorrentino**¹ (¹Salerno, ²Naples)

- 14.40 Glucocorticoid-induced leucine zipper (GILZ) inhibits MAPK pathway activation thus limiting neutrophil activation

Simona Ronchetti, **Erika Ricci**, **Elena Roselletti**, **Marco Gentili**, **Claudia Monari**, **Graziella Migliorati**, **Anna Vecchiarelli**, **Carlo Riccardi** (Perugia)

- 14.50 Communication between macrophages and cancer cells orchestrates lipid mediator biosynthesis

Simona Pace, **Markus Werner**, **Anna Czapka**, **Paul Jordan**, **Fabiana Troisi**, **Jana Gerstmeier**, **Andreas Koeberle**, **Oliver Werz** (Jena - Germany)

- 15.00 Palmitoylethanolamide counteracts neurogenic inflammation *in vitro* by stimulating 2-arachidonoyl-glycerol biosynthesis and synergising with endocannabinoid signaling at the cannabinoid receptor type-2

Stefania Petrosino¹, **Aniello Schiano Moriello**¹, **Roberta Verde**¹, **Marco Allarà**¹, **Roberta Imperatore**¹, **Alessia Ligresti**¹, **Ali Mokhtar Mahmoud**¹, **Alessio Filippo Peritore**¹, **Fabio Arturo Iannotti**¹, **Vincenzo Di Marzo**^{1,2} (¹Pozzuoli, ²Quebec City - Canada)

SALA 4

14.00 ORAL COMMUNICATIONS

16.00 INFLAMMATION PHARMACOLOGY (cont.)

- 15.10 Identification of a 2-propanol analogue modulating the non-enzymatic function of indoleamine 2,3-dioxygenase ¹

Elisa Albini, Maria Teresa Pallotta, Giada Mondanelli, Marco Gargaro, Claudia Volpi, Ciriana Orabona (Perugia)

- 15.20 Modulation of myeloid derived suppressor cells: a new strategy towards hydrogen sulfide anti-cancer effects

Paola De Cicco¹, Giuseppe Ercolano¹, Theodore Sanders², Kevin J Maloy², Valentina Rubino¹, Giuseppe Terrazzano¹, Giuseppina Ruggiero¹, Giuseppe Cirino¹, Angela Ianaro¹ (¹Naples, ²Oxford - United Kingdom)

- 15.30 Hydrogen sulfide and pro-resolving pathway: a possible interplay in endothelial cells

Vincenzo Brancaleone¹, Valentina Vellecco², Rosangela Montanaro¹, Onorina Laura Manzo², Giuseppe Cirino² (¹Potenza, ²Naples)

- 15.40 Platelet-specific deletion of cyclooxygenase-1 ameliorates dextran sulfate sodium-induced colitis in mice

Annalisa Bruno¹, Annalisa Contursi¹, Melania Dovizio¹, Stefania Tacconelli¹, Emanuela Ricciotti², Paloma Guillem-Llobat¹, Tania Salvatore¹, Luigia Di Francesco¹, Rosa Fullone¹, Patrizia Ballerini¹, Vincenzo Arena³, Sara Alberti¹, Guizhu Liu⁴, Yanjun Gong⁴, Alessandro Sgambato³, Carlo Patrono³, Garret A. FitzGerald², Ying Yu⁵, Paola Patrignani¹ (¹Chieti, ²Philadelphia - USA, ³Rome, ⁴Shanghai - China, ⁵Tianjin - China)

ALETTA 202

14.00 ORAL COMMUNICATIONS

16.00 NEUROPHARMACOLOGY

Chairpersons: **Lorenzo Di Cesare Mannelli** (Florence),
Giambattista Bonanno (Genoa)

- 14.00 Antinflammatory, antioxidant, and behavioural effects induced by MIA-690 and MR-409 administration in mice
Sheila Leone¹, **Lucia Recinella¹**, **Annalisa Chiavaroli¹**, **Giustino Orlando¹**, **Claudio Ferrante¹**, **Guya Diletta Marconi¹**, **Iacopo Gesmundo²**, **Riccarda Granata²**, **Renzhi Cai³**, **Andrew V. Schally³**, **Luigi Brunetti¹** (¹Chieti, ²Turin, ³Miami - USA)
- 14.10 Role of the Na⁺/Ca²⁺ Exchanger and the Excitatory Amino Acid Transporters on the glutamate-boosted ATP synthesis in an *in vitro* model of Alzheimer's Disease
Simona Magi, **Marta Maiolino**, **Silvia Piccirillo**, **Vincenzo Lariccia**, **Salvatore Amoroso** (Ancona)
- 14.20 Innovative kappa opioid receptor agonists with different bias towards G protein-dependent signaling: molecular pathway analysis and pharmacological effects
Andrea Bedini¹, **Lorenzo Di Cesare Mannelli²**, **Laura Micheli²**, **Rossella De Marco¹**, **Luca Gentilucci¹**, **Carla Ghelardini²**, **Santi Spampinato¹** (¹Bologna, ²Florence)
- 14.30 Acid-sensing ion channel 1A is required for synaptic plasticity in the hippocampus
Dalila Mango, **Robert Nisticò** (Rome)
- 14.40 Forced exercise induces anxiety-like behavior associated with reduced electrophysiological neuronal activity and gut and brain endocannabinoidome changes
Flavia Ricciardi, **Mariella Donniacuo**, **Serena Boccella**, **Monica Iannotta**, **Fabiana Piscitelli**, **Sabatino Maione**, **Vincenzo Di Marzo**, **Francesca Guida**, **Barbara Rinaldi** (Naples)
- 14.50 Effect of high-fat diet and Toll-like receptor 4 on the integrity of mouse enteric and central nervous systems
Ilaria Marsilio¹, **Valentina Caputi¹**, **Silvia Cerantola¹**, **Michela Bistoletti²**, **Cristina Giaroni²**, **Morena Zusso¹**, **Maria Cecilia Giron¹** (¹Padua, ²Varese)
- 15.00 Improvement of fiber connectivity and functional recovery after stroke by montelukast, an available and safe anti-asthmatic drug
Luigi Sironi¹, **Elisabetta Bonfanti¹**, **Paolo Gelosa¹**, **Laura Castiglioni¹**, **José María Delgado-García²**, **Agnès Gruart²**, **Lucia Fontana¹**, **Marco Gotti¹**, **Elena Tremoli¹**, **Davide Lecca¹**, **Marta Fumagalli¹**, **Mauro Cimino³**, **Ludwig Aigner⁴**, **Maria Pia Abbracchio¹** (¹Milan, ²Seville - Spain, ³Urbino, ⁴Salzburg - Austria)

ALETTA 202

14.00 ORAL COMMUNICATIONS

16.00 NEUROPHARMACOLOGY (cont.)

- 15.10 Roles of antibodies targeting neurotransmitter receptors and complement in the modulation of glutamatergic hippocampal neurotransmission: relevance to autoimmune synaptopathies
Guendalina Olivero, Matteo Vergassola, Francesca Cisani, Alessandra Roggeri, Cesare Usai, Anna Pittaluga (Genoa)
- 15.20 Satiety factor oleoylethanolamide prevents binge-like palatable food consumption induced by stress in female rats with a history of food restriction
Adele Romano¹, Maria Vittoria Micioni Di Bonaventura², Cristina Anna Gallelli¹, Justyna Barbara Koczwara¹, Maria Elena Giusepponi², Tommaso Cassano³, Carlo Cifani², Silvana Gaetani¹ (¹Rome, ²Camerino, ³Foggia)
- 15.30 Role of NCX1 and NCX3 in neurodegeneration and neuroinflammation in the A53T transgenic mouse model of Parkinson's Disease
Rossana Sirabella¹, Maria José Sisalli¹, Giulia Costa², Rossana Di Martino¹, Micaela Morelli², Gianfranco Maria Di Renzo¹, Lucio Annunziato¹, Antonella Scorziello¹ (¹Naples, ²Cagliari)
- 15.40 Reverting the electrophysiological alterations caused by HCN loss of function to protect vulnerable dopaminergic neurons in MitoPark mouse model
Carmen Carbone¹, Daniela Iezzi¹, Alice Ilari², Guido Mannaioni¹, Alessio Masi² (¹Florence, ²Camerino)
- 15.50 Purinergic current in microglia is enhanced by metabotropic glutamate receptor activation
Mariangela Chisari, Michele Barraco, Maria Angela Sortino (Catania)

ALETTA 203

14.00 SYMPOSIUM

16.00 GENETIC AND EPIGENETIC MODULATORS OF DISEASE RISK AND TREATMENT OUTCOME IN NEUROPSYCHIATRIC DISORDERS
Chairpersons: **Patrizia Romualdi** (Bologna), **Alessio Squassina** (Cagliari)

14.00 Exploring the role of accelerated aging and inflammation in psychiatric disorders and treatments with psychotropic medications
Alessio Squassina (Cagliari)

14.20 Genetics/epigenetics of autism: possible pharmacological targets
Dario Siniscalco (Naples)

14.40 Genetics and epigenetics of Alzheimer's Disease and Frontotemporal dementia: implications for a tailored therapy
Daniela Galimberti (Milan)

15.00 Class I HDAC enzymes as new potential epigenetic target in drug addiction
Francesca Felicia Caputi (Bologna)

15.20 Genetics and epigenetics of obesity and eating disorders: role of the endocannabinoid system
Silvana Gaetani (Rome)

15.40 Discussion

SALA 101

14.00 ORAL COMMUNICATIONS

16.00 PHARMACOGNOSY

Chairpersons: **Luigi Brunetti** (Chieti), **Gabriela Mazzanti** (Rome)

- 14.00** *Cannabis sativa* L. extract and cannabidiol exert anti-inflammatory effects in human fibroblasts and keratinocytes
Enrico Sangiovanni¹, **Marco Fumagalli¹**, **Barbara Pacchetti²**, **Stefano Piazza¹**, **Andrea Magnavacca¹**, **Saba Khalilpour¹**, **Gloria Melzi¹**, **Giulia Martinelli¹**, **Mario Dell'Agli¹** (¹Milan, ²Riazzino - Switzerland)
- 14.10** *In vitro* biological activities of essential oils from three Succulent plants in drug resistant diseases
Monica Notarbartolo, **Maurizio Sajeve**, **Pietro Zito**, **Rosa Alduina**, **Paola Poma**, **Manuela Labbozzetta** (Palermo)
- 14.20** Phytochemical and pharmaco-toxicological characterization on water hemp extracts
Claudio Ferrante, **Lucia Recinella**, **Annalisa Chiavaroli**, **Sheila Leone**, **Luigi Brunetti**, **Luigi Menghini**, **Giustino Orlando** (Chieti)
- 14.30** Glucomoringin, a glucosinolates extracted from *Moringa oleifera* seeds, induces antiproliferative effect in human neuroblastoma cells
Santa Cirmi, **Nadia Ferlazzo**, **Laura Musumeci**, **Caterina Russo**, **Alessandro Maugeri**, **Giovanni Enrico Lombardo**, **Michele Navarra** (Messina)
- 14.40** In utero cannabis exposure increases sensitivity of midbrain dopamine system and induces sensorimotor gating alterations in male but not female rats
Francesco Traccis, **Claudia Sagheddu**, **Pierluigi Saba**, **Valeria Serra**, **Gabriele Giua**, **Mauro Congiu**, **Silvia Fanni**, **Paola Devoto**, **Roberto Frau**, **Miriam Melis** (Cagliari)
- 14.50** Administration of naringenin ameliorates DSpastin loss of function phenotypes in *Drosophila melanogaster*
Barbara Napoli¹, **Alison Salvador¹**, **Alessia Forgiarini¹**, **Chiara Vantaggiato²**, **Elena Panzeri²**, **Andrea Martinuzzi³**, **Genny Orso¹** (¹Padua, ²Lecco, ³Conegliano)
- 15.00** Supplementation with phytoestrogens and insoluble fibers reduces intestinal carcinogenesis and upregulates ER- β expression in an Apc-driven model of colorectal carcinogenesis
Katia Tortora, **Cristina Luceri**, **Mario D'Ambrosio**, **Angelo Pietro Femia**, **Giovanna Caderni** (Florence)
- 15.10** A new nutraceutical formulation as promising agent against inflammatory bowel diseases: *in vitro* evaluation on Caco-2 transwell model
Antonella Smeriglio, **Marcella Denaro**, **Clara De Francesco**, **Domenico Trombetta** (Messina)

SALA 101

14.00 ORAL COMMUNICATIONS

16.00 PHARMACOGNOSY (cont.)

- 15.20** Extra-virgin olive oil polyphenols oleocanthal, oleacein and hydroxytyrosol decrease adipocyte inflammation

Beatrice Polini¹, Marika Massaro², Sara Carpi¹, Maria Digiacoimo¹, Clementina Manera¹, Marco Macchia¹, Egeria Scoditti², Paola Nieri¹ (¹Pisa, ²Lecce)

- 15.30** Supplementing punicalagin protects human retinal pigment epithelium cells (ARPE-19) from ultraviolet radiation-induced oxidative damage

Giuseppe Tringali, Beatrice Sampaiole, Francesca Sciandra, Maria Elisabetta Clementi (Rome)

- 15.40** Bergamot polyphenols improve dyslipidemia and pathophysiological features in a mouse model of non-alcoholic fatty liver disease

Federica Scarano¹, Vincenzo Musolino¹, Micaela Gliozzi¹, Francesca Bosco¹, Miriam Scicchitano¹, Saverio Nucera¹, Cristina Carresi¹, Jessica Maiuolo¹, Stefano Ruga¹, Maria Caterina Zito¹, Roberta Macri¹, Francesca Noto¹, Lorenza Guarneri¹, Rocco Mollace¹, James Ehrlich², Martina Vitelli¹, Beniamino Guerrieri¹, Pierre Bedossa³, Salvatore Ragusa¹, Ernesto Palma¹, Arun J. Sanyal⁴, Carolina Muscoli¹, Vincenzo Mollace¹ (¹Catanzaro, ²Denver - USA, ³Clichy - France, ⁴Richmond - USA)

- 15.50** Protective effects induced by MOMAST[®] HY100 and MOMAST[®] HP30 in rat isolated tissues challenged with LPS

Annalisa Chiavaroli, Lucia Recinella, Giustino Orlando, Luigi Menghini, Claudio Ferrante, Luigi Brunetti, Sheila Leone (Chieti)

AUDITORIUM

08.30 SYMPOSIUM

10.30 BETA AMYLOID AND MORE: EMERGING PERSPECTIVES IN ALZHEIMER'S DISEASE DIAGNOSIS AND THERAPY

Chairpersons: **Monica Di Luca** (Milan), **Carmela Matrone** (Naples)

08.30 Beta-amyloid: what is it for?

Agata Graziella Copani (Catania)

08.50 Targeting and tracing intracellular amyloid beta oligomers in Alzheimer's cells and tissues

Giovanni Meli (Rome)

09.10 ADAM10 as potential therapeutic target: looking at the other side of the coin

Monica Di Luca (Milan)

09.30 The Y682 residue of APP as valuable diagnostic or therapeutic target in Alzheimer's Disease

Carmela Matrone (Naples)

09.50 Metabolic disturbance in dementia: the neuroprotective role of Vitamin D

Vincenza Frisardi (Reggio Emilia)

10.10 Neurotrophins stimulation in Alzheimer's Disease patients by music, exercise and other interventions: treatment or placebo?

Elvira Brattico (Aarhus - Denmark)

10.30 LECTURE

11.00

Introduced by: **Diego Fornasari** (Milan)

Opioid-induced bowel dysfunction: prevention and treatment

Carmelo Scarpignato (Msida - Malta)

AUDITORIUM

11.00 SPONSORED SYMPOSIUM (see page 128)
13.00

15.00 SPONSORED LECTURE (see page 128)
15.30

15.30 SYMPOSIUM
17.00 TREATMENT-RESISTANT DEPRESSION: FROM NEUROBIOLOGY TO NOVEL THERAPEUTIC STRATEGIES
Chairpersons: **Nicoletta Brunello** (Modena), **Filippo Drago** (Catania), **Giorgio Racagni** (Milan)

15.30 Predictors and biological variables for treatment resistant depression
Siegfried Kasper (Vienna - Austria)

15.50 TRD: which role for animal models?
Alexandra Sulcova (Praha - Czech Republic)

16.10 Neuronal plasticity and altered stress response as core elements in mood disorders: relevance for effective drug intervention
Marco Andrea Riva (Milan)

16.30 Neurobiological links between treatment-resistant depression and Alzheimer's Disease: the role of TGF- β 1 pathway
Filippo Caraci (Catania)

16.50 Discussion

AUDITORIUM

17.00 SYMPOSIUM

19.00 EARLY LIFE ADVERSITIES IN THE PATHOGENESIS OF NEUROPSYCHIATRIC DISORDERS: FOCUS ON MATERNAL IMMUNE ACTIVATION AND CANNABINOID EXPOSURE

Chairpersons: **Miriam Melis** (Cagliari), **Marco Pistis** (Cagliari)

17.00 Immune-synaptopathies: how maternal immune activation induces synapse dysfunctions in the offspring
Michela Matteoli (Rozzano)

17.20 Prenatal adversities and the risk for psychopathology: from molecular characterization to therapeutic intervention
Marco Andrea Riva (Milan)

17.40 Prenatal THC elicits neuropsychiatric phenotypes vulnerable to subsequent THC exposure: reversal by pregnenolone
Roberto Frau (Cagliari)

18.00 Endocannabinoid stimulation during pregnancy: effects on the mother-infant dyad and beyond
Anna Brancato (Palermo)

18.20 Prenatal THC exposure permanently disturbs kynurenic acid and glutamate levels and amplifies the responsivity to an acute kynurenine challenge in the rat prefrontal cortex
Sarah Beggiato (Ferrara)

18.40 Brains in the pot fog: mechanisms underlying long-lasting effects of adolescent cannabis exposure
Tiziana Rubino (Varese)

SALA ONICE

08.30 SYMPOSIUM

10.30 CANNABIDIOL AND CANNABIS LIGHT: TOXICOLOGICAL ASPECTS AND NEW PHARMACOLOGICAL STRATEGIES

with an unconditioned educational support

Chairpersons: **Maurizio Memo** (Brescia),

Domenico Pellegrini-Giampietro (Florence)

08.30 Relationship between cannabidiol, social behavior, and oxytocin-mediated neural systems

Andrea Mastinu (Brescia)

08.50 Early cannabidiol treatment prevents the development of schizophrenia like-abnormalities

Vincenzo Micale (Catania)

09.10 Cannabinoids, cannabidiol and experimental models of epilepsy

Emilio Russo (Catanzaro)

09.30 Not just brainy but also brawny: effects of cannabidiol and other phytocannabinoids in West-syndrome and Duchenne's muscular dystrophy

Fabio Arturo Iannotti (Pozzuoli)

09.50 Cannabinoids and cerebral ischemia: experimental studies with cannabidiol and natural compounds

Elisa Landucci (Florence)

10.10 From medical cannabis to Cannabis Light: an analysis of the Italian surveillance system

Alfredo Vannacci (Florence)

10.30 ROUND TABLE

12.00 CLINICAL RESEARCH IN ITALY: WHAT IS CHANGING AND WHAT WILL BE THE FUTURE

with an unconditioned educational support

Chairpersons: **Alessandro Mugelli** (Florence), **Marco Scatigna** (Milan)

Participants

Katia Belvedere (Florence)

Romano Danesi (Pisa)

Gianluca D'Anzeo (Sesto Fiorentino)

Maria Luisa Moro (Bologna)

Sandra Petraglia (Rome)

Elisabetta Riva (Milan)

Dominique Van Doorne (Rome)

SALA ONICE

12.00 SPONSORED SYMPOSIUM (see page 129)
13.00

15.00 LECTURE
15.30 *with an unconditioned educational support*

Introduced by: **Pier Luigi Canonico** (Novara)

Innovation in demyelinating diseases: different mechanisms of action
Ferdinando Nicoletti (Rome)

15.30 SYMPOSIUM
17.00 **PLAY IN ADVANCE ON NEURODEGENERATIVE PROCESSES: TOWARD A NEW KNOWLEDGE OF GLIAL CELLS IN GUT-BRAIN AXIS**
with an unconditioned educational support
Chairpersons: **Giuseppe Esposito** (Rome), **Caterina Scuderi** (Rome)

15.30 Balance between enteric and spinal glia activation in visceral sensitivity alterations resulting from gut damage: a promising target for the management of abdominal pain
Elena Lucarini (Florence)

15.50 The importance of enteric glia-derived S100B in intestinal inflammation
Giovanni Sarnelli (Naples)

16.10 Enteric glia in epithelial barrier dysfunction in Parkinson Disease: perspectives for new therapies
Matteo Fornai (Pisa)

16.30 The possible role of the glial and microglial cells in the gut-brain axis dysfunctions
Livio Luongo (Naples)

16.50 Discussion

SALA ONICE

17.00 SYMPOSIUM

19.00 MORE THAN NEURONS: IDENTIFICATION OF NON-NEURONAL PHARMACOLOGICAL TARGETS IN NEUROLOGICAL DISORDERS

with an unconditional educational support

Chairpersons: **Mariagrazia Grilli** (Novara), **Maria Angela Sortino** (Catania)

17.00 Astrocyte signaling during neuroinflammation

Cinthia Farina (Milan)

17.30 Targeting astrocytes for drug discovery and therapy in Parkinson's Disease

Bianca Maria Marchetti (Catania)

18.00 The pathological role of astrocytes in amyotrophic lateral sclerosis: therapeutic effects of exosomes deriving from mesenchymal stem cells on mouse and human primary cell cultures

Marco Milanese (Genoa)

18.20 Targeting astrocytes to affect BBB function

Simona Federica Spampinato (Catania)

18.40 Non neuronal cellular alterations may unravel novel therapeutic targets in Down Syndrome

Maria Elisa Salvalai (Novara)

SALA VERDE

08.30 SYMPOSIUM

10.00 THERAPIES FOR DYSLIPIDAEMIAS: HOW TO IDENTIFY NEW THERAPEUTIC TARGETS

Chairpersons: **Alberico Catapano** (Milan), **Enzo Manzato** (Padua)

08.30 Introduction

08.35 Mendelian randomization studies to validate possible pharmacological targets **Brian Ference** (Cambridge - United Kingdom)

08.55 RNA inhibitors: positive aspects and shadows **Giuseppe Danilo Norata** (Milan)

09.15 Genetic editing: the serious forms of dyslipidemia **Maurizio Averna** (Palermo)

09.35 New therapeutic goals **Alberto Corsini** (Milan)

09.55 Conclusions

10.00 SYMPOSIUM

12.00 PCSK9 FROM GENETIC TO DRUG DEVELOPMENT AND MORE

with an unconditioned educational support

Chairpersons: **Alberico Catapano** (Milan), **Alessandro Mugelli** (Florence),
Elena Tremoli (Milan)

10.00 PCSK9 Biology and Physiopathology **Giuseppe Danilo Norata** (Milan)

10.20 PCSK9 Protein Inhibition: first clinical results **Marcello Arca** (Rome)

10.40 The clinical results of the big trials **Maurizio Averna** (Palermo)

11.00 PCSK9 and thrombosis **Marina Camera** (Milan)

11.20 PCSK9 and inflammation **Nicola Ferri** (Padua)

11.40 PCSK9 and valve calcification **Paolo Poggio** (Milan)

SALA VERDE

12.00 LECTURE

12.45 *with an unconditioned educational support*

Introduced by: **Alessandro Mugelli** (Florence)

Pharmacological strategies to fight residual cardiovascular risk

Carlo Patrono (Rome)

15.00 SYMPOSIUM

16.00 JOINT SYMPOSIUM SIF-ATBV. 1899-2019: ASPIRIN IN PERSPECTIVE

Chairpersons: **Andrea Rubboli** (Bologna), **Elena Tremoli** (Milan)

15.00 Aspirin in acute coronary syndromes: is it time to drop it?

Andrea Rubboli (Bologna)

15.20 Aspirin in the primary prevention of CVD: do we have adequate evidence on the balance of benefits and risks?

Bianca Rocca (Rome)

15.40 Aspirin: a look back and a look at the future

Carlo Patrono (Rome)

16.00 SYMPOSIUM

17.00 DRUG-DRUG INTERACTIONS AND CLINICAL RELEVANT EFFECTS

Chairpersons: **Annalisa Capuano** (Naples), **Roberto Leone** (Verona)

16.00 Drug-drug interactions as a major cause of drug withdrawals from the market

Ugo Moretti (Verona)

16.20 Drug-drug interactions in the era of personalized medicine: how do we improve drug safety

Alessandro Nobili (Milan)

16.40 Identifying DDI by data mining

Gianluca Trifirò (Messina)

SALA VERDE

17.00 SYMPOSIUM

18.00 THE ROLE OF THE CLINICAL PHARMACOLOGIST IN THE HEALTH
NATIONAL SYSTEM: CERTAINTIES AND CONTRADICTIONS

Chairpersons: **Romano Danesi** (Pisa), **Gualberto Gussoni** (Milan)

SIF Clinical Pharmacology Section: what has been done in the last 2 years
Romano Danesi (Pisa)

Round Table

Participants

Annalisa Capuano (Naples)

Antonio D'Avolio (Torino)

Marzia Del Re (Pisa)

Maria Del Zompo (Cagliari)

Angela Ianaro (Naples)

Roberto Leone (Verona)

Domenico Motola (Bologna)

Dominique Van Doorne (Rome)

18.00 "SEZIONE DI FARMACOLOGIA CLINICA GIAMPAOLO VELO" ASSEMBLY

19.00

SALA LIMONAIA

08.30 SYMPOSIUM

10.00 NEW PHARMACOLOGICAL APPROACHES TO INFLAMMATION

Chairpersons: **Stefano Bruscoli** (Perugia), **Emanuela Esposito** (Messina)

08.30 Are toll-like receptors the link between inflammation and CNS?
Irene Paterniti (Messina)

08.45 Unexplored role of hydroxyl carboxylic acid receptor type 2 in the neuroinflammatory processes associated with neuropathic pain
Livio Luongo (Naples)

09.00 B lymphocytes and inflammation: role of glucocorticoid-induced leucine zipper
Oxana Bereshchenko (Perugia)

09.15 Targeting Innate and adaptive immune system in IBD: neutralization of eNAMPT has a novel pharmacological strategy
Giorgia Colombo (Novara)

09.30 Mechanisms of vascular inflammation
Pasquale Maffia (Glasgow - United Kingdom)

09.45 Discussion

10.00 SYMPOSIUM

11.00 GUIDE TO IMMUNOPHARMACOLOGY. HOW TO NAVIGATE AND USE THE DATABASE

Chairpersons: **Pasquale Maffia** (Glasgow - United Kingdom),
Salvatore Cuzzocrea (Messina)

10.00 Discovering the right target in inflammatory disease
Carlo Riccardi (Perugia)

10.20 How to use guide to pharmacology and guide to immunopharmacology
Elena Faccenda (Edinburgh - United Kingdom)

SALA LIMONAIA

11.30 SPONSORED SYMPOSIUM (see page 130)
12.30

12.30 SPONSORED LECTURE (see page 130)
13.00

15.00 SYMPOSIUM
16.30 PHARMACOLOGICAL TREATMENT OF CHRONIC PAIN: UPDATE OF THE SIF POSITION PAPER

with an unconditioned educational support

Chairpersons: **Luca Gallelli** (Catanzaro), **Alessandro Mugelli** (Florence)

15.00 Introduction
Guido Mannaioni (Florence)

15.05 Non-steroidal anti-inflammatory drugs
Diego Fornasari (Milan)

15.25 Opioids
Patrizia Romualdi (Bologna)

15.45 Safety profile in the light of pharmacovigilance data in Europe and Italy
Laura Sottosanti (Rome)

16.05 Pharmacological treatment of low back pain: evidence from real world data
Amelia Filippelli (Salerno)

16.25 Discussion

16.30 SPONSORED LECTURE (see page 130)
17.00

SALA LIMONAIA

17.00 SYMPOSIUM

19.00 NEW HORIZONS IN PAIN TREATMENT

with an unconditional educational support

Chairpersons: **Girolamo Calò** (Ferrara), **Lorenzo Di Cesare Mannelli** (Florence)

17.00 Mixed NOP/mu receptor agonists as innovative analgesics

Chiara Ruzza (Ferrara)

17.15 Ultramicrosized N-Palmitoylethanolamine for opioids sparing analgesia

Laura Micheli (Florence)

17.30 Interaction between endogenous opioid system and proteasome complex in chronic pain: beyond signaling

Francesca Felicia Caputi (Bologna)

17.45 The prokineticin system as target to counteract chemotherapy-induced peripheral neuropathy

Silvia Franchi (Milan)

18.00 Trigeminal pain in an animal model of experimental autoimmune encephalomyelitis (EAE): molecular and cellular mechanisms

Stefania Ceruti (Milan)

18.15 The role of Schwann cells in pain

Francesco De Logu (Florence)

18.30 Altered gut microbiota and endocannabinoid system tone in vitamin D deficiency-mediated chronic pain

Francesca Guida (Naples)

18.45 Epilepsy and pain: evaluation of behavioral pain in the WAG/Rij rat model of genetic epilepsy and effects of repeated oral butyrate administration

Carmen De Caro (Catanzaro)

SALA 4

08.30 SYMPOSIUM

10.00 HYPOTHESIS-DRIVEN NEW THERAPEUTIC APPROACHES IN ALCOHOL USE DISORDER (AUD)

Chairpersons: **Roberto Ciccocioppo** (Camerino), **Patrizia Romualdi** (Bologna)

08.30 Nociceptin/orphanin FQ receptor antagonists attenuate alcohol drinking and seeking through modulation of corticomesolimbic circuitry
Nazzareno Cannella (Camerino)

08.50 Genetic and epigenetic factors in the vulnerability to alcoholism: focus on the histone deacetylases
Francesca Felicia Caputi (Bologna)

09.10 Potential of positive allosteric modulators of GABAB receptor in the treatment of alcohol use disorder: Preclinical evidence
Giancarlo Colombo (Cagliari)

09.30 The Synaptic triad of the nucleus accumbens in alcohol dependence: basis for transcranial magnetic stimulation
Marco Diana (Sassari)

09.50 Discussion

10.00 ROUND TABLE

11.00 CHALLENGES IN BIOSIMILARS USE: WHAT WE ACHIEVED AND WHAT WE STILL NEED TO ACHIEVE

Chairpersons: **Annalisa Capuano** (Naples), **Anna Rosa Marra** (Rome)

10.00 The pharmacovigilance of biosimilars
Laura Sottosanti (Rome)

10.15 Comparability exercise: a close examination of its strengths, weaknesses and future challenges
Liberata Sportiello (Naples)

10.30 The post-marketing evaluation of biosimilars in Italy: real world data-based strategies
Carmen Ferrajolo (Naples)

10.45 Biosimilars in Italy: the patient's point of view
Dominique Van Doorne (Rome)

SALA 4

11.00 SYMPOSIUM SIF-IBG (GRUPPO ITALIANO BIOSIMILARI, ASSOGENERICI)
13.00 ACCESS TO THERAPIES WITH BIOLOGICAL MEDICINES AND UNDER-TREATMENT PHENOMENA IN THE AREA OF RHEUMATIC DISEASES
with an unconditioned educational support
 Chairperson: **Barbara Gobbi** (Milan)

11.00 Introduction
Barbara Gobbi (Milan)

11.05 Assessment of patients affected by rheumatoid arthritis eligible for biologic and areas of under- treatment
Luca Degli Esposti (Bologna)

11.35 International comparison on access to biologic medicines therapies: IQVIA's sustainability scorecards project
Carlo Salvioni (Milan)

12.05 ROUND TABLE: POLICIES TO TACKLE UNDER TREATMENT PHENOMENA

Participants

Roberto Banfi (Florence)

Stefano Collatina (Rome)

Roberto Gerli (Perugia)

Alessandro Mugelli (Florence)

Francesco Trotta (Rome)

15.00 LECTURE
15.30 *with an unconditioned educational support*

Introduced by: **Luigia Trabace** (Foggia)

Sequential therapy in osteoporosis: the solution for the prevention of fragility fractures

Maria Luisa Brandi (Florence)

SALA 4

15.30 SYMPOSIUM

16.30 PRECISION MEDICINE

with an unconditioned educational support

Chairperson: **Romano Danesi** (Pisa)

15.30 From molecular diagnosis to precision medicine - the pathologist standpoint
Andrea Vecchione (Rome)

15.50 Mutational tumor board in the precision medicine era: which role?
Nello Martini (Rome)

16.10 Discussion

16.30 SYMPOSIUM

19.00 SEX-TAILORED PHARMACOLOGY: FROM PRECLINICAL STUDIES TO CLINICAL PHARMACOLOGY

with an unconditioned educational support

Chairpersons: **Maria Angela Sortino** (Catania), **Luigia Trabace** (Foggia)

16.30 Sex-gender studies: methodological recommendations
Ilaria Campesi (Sassari)

16.40 The drivers of male and female divergent energy metabolism and its significance for drug design
Sara Della Torre (Milan)

16.50 Cell sex matters: detecting diversity between human male and female endothelial cells
Maria Grazia Cattaneo (Milan)

17.00 Sex and Gender drug utilization in oncology: real world evidence
Marina Ziche (Siena)

17.15 Are there gender differences in adherence to, and persistence with chronic therapies? Evidence from a meta-analysis and real-world data on antihypertensive drugs
Amelia Filippelli (Salerno)

17.30 Discussion

SALA 4

17.40

ROUND TABLE

GENDER-ORIENTED PHARMACOLOGY. FROM 2008 (WHY WERE WE BORN?) TO 2019 (WHICH PROGRESS 10 YEARS LATER)

Chairpersons: **Annamaria De Luca** (Bari), **Carla Ghelardini** (Florence)

Participants

Giovannella Baggio (Padua)

Flavia Franconi (Sassari)

Andrea Lenzi (Rome)

Adriana Caterina Maggi (Milan)

Walter Malorni (Rome)

Teresita Mazzei (Florence)

Mihaela Nica (Milan)

Katia Varani (Ferrara)

Conclusions

Flavia Franconi (Sassari), **Andrea Lenzi** (Rome), **Alessandro Mugelli** (Florence)

ALETTA 202

08.30 SYMPOSIUM

10.30 ADVANCES AND INNOVATIONS IN TUMOUR PHARMACOLOGY

Chairperson: **Enrico Mini** (Florence)

08.30 Advanced and emerging TKI inhibitors in oncology

Gianni Sava (Trieste)

08.50 Drugs targeting the tumour microenvironment

Marina Ziche (Siena)

09.10 Innovative pharmacological approaches to cancer: the agnostic drugs

Enrico Mini (Florence)

09.30 Implementing pharmacological strategies in precision cancer immunotherapy

Giuseppe Toffoli (Aviano)

09.50 Linking therapy and biomarkers in the era of targeted drugs

Romano Danesi (Pisa)

10.10 Cardio-oncology

Giorgio Minotti (Rome)

10.30 SPONSORED SYMPOSIUM (see page 131)

11.30

11.30 SPONSORED SYMPOSIUM (see page 131)

12.30

12.30 LECTURE

13.00 *with an unconditioned educational support*

Introduced by: **Teresita Mazzei** (Florence)

New pharmacological perspectives for the treatment of diffuse large b-cell lymphoma (DLBCL)

Mario Petrini (Pisa)

ALETTA 202

15.00 SYMPOSIUM

17.00 INNOVATIVE IMMUNOPHARMACOLOGICAL STRATEGIES IN ONCOLOGY

Chairpersons: **Romano Danesi** (Pisa), **Roberto Leone** (Verona)

15.00 Critical aspects of pharmacological modulation of immunity
Gianni Sava (Trieste)

15.20 Predictive markers of activity for immunological drugs
Marzia Del Re (Pisa)

15.40 Pharmacological differences among the immunological strategies of therapy
Antonio D'Avolio (Turin)

16.00 Combining immunotherapy with chemotherapy and targeted drugs
Enrico Mini (Florence)

16.20 Safety aspects connected with immunological drugs
Annalisa Capuano (Naples)

16.40 Discussion

ALETTA 202

17.00 ORAL COMMUNICATIONS

19.00 PHARMACOLOGICAL APPROACHES IN ONCOLOGY

Chairpersons: **Alberta Bergamo** (Trieste), **Alessandra Bitto** (Messina)

- 17.00** *In vitro* cisplatin cytotoxicity in the testicular germ tumor cell line ntera-2 is enhanced by the CDK4/6 inhibitor palbociclib
Elisa Rossini, **Valentina Bosatta**, **Andrea Abate**, **Martina Fragni**, **Alfredo Berruti**, **Maurizio Memo**, **Sandra Sigala** (Brescia)
- 17.10** miR-193a as new potential therapeutic agent and biomarker in cutaneous melanoma
Sara Carpi¹, **Beatrice Polini**¹, **Leena Ylösmäki**², **Erkko Ylösmäki**², **Vincenzo Cerullo**², **Antonella Romanini**¹, **Paola Nieri**¹ (¹Pisa, ²Helsinki - Finland)
- 17.20** NAAA is crucially involved in proliferation, migration and *in vivo* colon tumorigenesis
Ester Pagano¹, **Barbara Romano**¹, **Tommaso Venneri**¹, **Giovanna Vanacore**¹, **Fabio A. Iannotti**¹, **Alexandros Makriyannis**², **Michael S. Malamas**², **Maria D'Armiento**¹, **Vincenzo Brancaleone**³, **Fabiana Piscitelli**¹, **Vincenzo Di Marzo**⁴, **Angelo A. Izzo**¹, **Francesca Borrelli**¹ (¹Naples, ²Boston - USA, ³Potenza, ⁴Québec City - Canada)
- 17.30** Nicotinamide phosphoribosyltransferase (NAMPT) translocates to the nucleus following glyceraldehyde-3-phosphate dehydrogenase (GAPDH) interaction and confers DNA damage resistance to melanoma cells
Ambra Grolla¹, **Riccardo Miggiano**¹, **Daniele Di Marino**², **Michele Bianchi**¹, **Federica Gaudino**³, **Giuseppe Orsomando**⁴, **Ubalдина Galli**¹, **Silvia Garavaglia**¹, **Armando Genazzani**¹ (¹Novara, ²Lugano - Switzerland, ³Turin, ⁴Ancona)
- 17.40** Boosting the efficacy of doxorubicin against ovarian cancer by ultrasound stimulation
Federica Foglietta, **Manuela Macrì**, **Roberto Canaparo**, **Arianna Marucco**, **Ivana Fenoglio**, **Patrizia Panzanelli**, **Giovanni Durando**, **Giampiero Muccioli**, **Enzo Terreno**, **Loredana Serpe** (Turin)
- 17.50** Role of the tumor cells and microenvironment in pancreatic tumor progression by detection of biomarkers in extracellular vesicles
Benedetta Ferrara¹, **Damien Habert**¹, **Matteo Ponzio**¹, **Claire Houppel**¹, **Alba Nicolas-Boluda**², **Florence Gazeau**², **Ilaria Cascone**¹, **Jose Courty**¹, **Anais Debesset**¹, **Fabio Raineri**¹ (¹Creteil - France, ²Paris - France)
- 18.00** *Hemidesmus indicus* induces immunogenic cell death in human colorectal cancer cells
Elena Catanzaro¹, **Eleonora Turrini**¹, **Manuele Giuseppe Muraro**², **Emanuele Trella**², **Valeria Governa**², **Valentina Mele**², **Carmela Fimognari**¹ (¹Rimini, ²Basel - Switzerland)

ALETTA 202

17.00 ORAL COMMUNICATIONS

19.00 PHARMACOLOGICAL APPROACHES IN ONCOLOGY (cont.)

- 18.10 PNN and KCNQ1OT1 are predictive biomarkers of clinical outcome in colorectal cancer patients treated with adjuvant fluoropyrimidine-based chemotherapy: a validation study
Stefania Nobili¹, Gabriele Perrone¹, Andrea Lapucci¹, Cristina Napoli¹, Ida Landini¹, Giandomenico Roviello¹, Laura Calosi¹, Antonio Giuseppe Naccarato², Alfredo Falcone², Daniele Bani¹, Antonello Di Paolo², Enrico Mini¹ (¹Florence, ²Pisa)
- 18.20 "All roads lead to Rome": intratumor subpopulations follow multiple evolutionary dynamic paths to achieve therapy resistance in metastatic colorectal cancer
Gabriele Pizzino, Elena Grassi, Gianvito Urgese, Marilisa Montemurro, Andrea Bertotti (Turin)
- 18.30 Circulating tumor DNA sequencing coupled with therapeutic drug monitoring as an innovative strategy for the pharmacological monitoring of GIST patients - A case report
Chiara Dalle Fratte, Rachele Borsatti, Maurizio Polano, Mauro Buzzo, Sara Gagno, Bianca Posocco, Angela Buonadonna, Michela Guardascione, Erika Cecchin, Giuseppe Toffoli, Elena De Mattia (Aviano)
- 18.40 Effects of nanoparticles loaded with the epigenetic drug JQ1 against triple negative breast cancer cells
Valentina Maggisano, Marilena Celano, Stefania Bulotta, Donato Cosco, Massimo Fresta, Diego Russo (Catanzaro)
- 18.50 Towards the identification of the mechanism of action of antitumor 1-methyl-D-tryptophan
Maria Teresa Pallotta, Alberta Iacono, Ciriana Orabona, Maria Laura Belladonna, Elisa Albini, Ursula Grohmann (Perugia)

ALETTA 203

08.30 SYMPOSIUM

10.00 THE SAFETY PROFILE OF PSYCHOTROPIC DRUGS IN PEDIATRICS

Chairpersons: **Emilio Giuseppe Clementi** (Milan), **Francesco Rossi** (Naples)

08.30 Antipsychotics in paediatric patients: setting the stage
Edoardo Spina (Messina)

08.45 Real world data: advantages and pitfalls in assessing safety and efficacy of antipsychotic drugs
Carla Carnovale (Milan)

09.00 The efficacy of psychotropic drugs in children
Carmela Bravaccio (Naples)

09.15 The safety and efficacy of ADHD's pharmacological treatments
Cristina Scavone (Naples)

09.30 Pharmacogenomics in antipsychotic Drugs safety
Concetta Rafaniello (Naples)

09.45 Discussion

10.00 SYMPOSIUM

12.00 NEW DRUGS AND INNOVATIVE THERAPIES TO TREAT PAEDIATRIC DISEASES

with an unconditioned educational support

Chairpersons: **Giuseppe Indolfi** (Florence), **Alessandro Mugelli** (Florence)
Gabriele Stocco (Trieste)

10.00 Clinical trials to study new drugs in children: modelling and extrapolation
Salvatore De Masi (Florence)

10.20 Drug repurposing for rare pediatric diseases: lessons learned from neuromuscular disorders
Annamaria De Luca (Bari)

10.40 Biological therapy (CAR T cells) to treat paediatric cancers
Franco Locatelli (Rome)

11.00 Regulatory environment to develop innovative drugs for children
Sara Galluzzo (Rome)

11.20 A European Research Infrastructure to develop paediatric innovative medicines
Giovanni Migliaccio (Bari)

11.40 Pharmacokinetics to personalize therapy with anti-TNF in pediatric patients
Gabriele Stocco (Trieste)

ALETTA 203

12.00 SPONSORED SYMPOSIUM (see page 132)
13.00

15.00 SYMPOSIUM
15.30 ECOSYSTEMS FOR INNOVATION
Chairpersons: **Andrea Frosini** (Florence), **Carla Ghelardini** (Florence)

15.00 Public-private partnerships for innovative ecosystems
Andrea Paolini (Florence)

15.15 Absolute robotics for pharmaceutical plants without human intervention
Claudio Bechini (Florence)

15.30 SYMPOSIUM
17.00 INNOVATIONFLOW AND THE PLAYERS FOR TRANSLATIONAL RESEARCH
Chairpersons: **Giuseppe Caruso** (Rome), **Giorgio Racagni** (Milan)

15.30 From bench to bed: new sustainable multistakeholder models for drug development
Maria Pia Abbracchio (Milan)

15.50 InnovationFlow: a challenge for researchers
Gianni Sava (Trieste)

16.05 The point of view of pharmaceutical industry
Marcella Origgi (Cologno Monzese), **Luca Romagnoli** (Cologno Monzese)

16.20 The business nursery in life science: managing innovation in the very early stage
Fabio Bianco (Bresso)

16.35 The point of view of Venture Capitalist
Pietro Puglisi (Turin)

16.50 Discussion

ALETTA 203

17.00 LECTURE

17.30 *with an unconditioned educational support*

Introduced by: **Fabio Marra** (Florence)

From translational research to the application in clinical practice: a succesful story
Roberto Pellicciari (Perugia), **Alberto Moschetta** (Bari)

17.30 SYMPOSIUM

19.00 NEW TRENDS IN ION CHANNEL PHARMACOLOGY

Chairpersons: **Jean-François Desaphy** (Bari), **Maurizio Taglialatela** (Naples)

17.30 Introduction

17.35 Pharmacology and oxidation sensitivity of volume regulated leucine-rich repeat containing 8 anion channels

Michael Pusch (Genoa)

18.00 Skeletal muscle CIC-1 chloride channels: from disease mechanisms to pharmacological approaches
Paola Imbrici (Bari)

18.20 Beyond retigabine: pharmacological characterization of novel neuronal KCNQ channel activators
Francesco Miceli (Naples)

18.40 New tricks for old drugs: anticonvulsant effect of quinidine in KCNT-dependent epilepsies
Maria Virginia Soldovieri (Campobasso)

SALA 101

08.30 ORAL COMMUNICATIONS

10.40 THE PHARMACOLOGY OF ALS AND OTHER RARE DISEASES

Chairpersons: **Tiziana Bonifacino** (Genoa), **Sabata Pierno** (Bari)

08.30 Metabotropic glutamate receptor type 5 as a target to reduce the reactive phenotype of spinal cord astrocytes from the SOD1G93A mouse model of amyotrophic lateral sclerosis
Tiziana Bonifacino, **Marco Milanese**, **Carola Torazza**, **Francesca Provenzano**, **Elena Gallia**, **Silvia Ravera**, **Cesare Usai**, **Giambattista Bonanno** (Genoa)

08.40 Maintenance of Ca^{2+} homeostasis as strategy to prevent motor neuron degeneration
Serenella Anzilotti, **Valeria Valsecchi**, **Ornella Cuomo**, **Agnese Secondo**, **Tiziana Petroziello**, **Natascia Guida**, **Lucio Annunziato**, **Giuseppe Pignataro** (Naples)

08.50 The GPR17 receptor as a new potential pharmacological target to restore oligodendroglial dysfunction in amyotrophic lateral sclerosis
Stefano Raffaele¹, **Elisabetta Bonfanti**¹, **Tiziana Bonifacino**², **Marco Milanese**², **Erica Morgante**¹, **Giambattista Bonanno**², **Maria Pia Abbraccio**¹, **Marta Fumagalli**¹ (¹Milan, ²Genoa)

09.00 Evaluating the involvement of skeletal muscle ion channels in new rodent models of Amyotrophic Lateral Sclerosis to identify innovative therapeutic approaches
Nancy Tarantino¹, **Giulia Maria Camerino**¹, **Elena Conte**¹, **Michela De Bellis**¹, **Adriano Fonzino**¹, **Gabriella Dobrowolny**², **Antonio Musarò**², **Annamaria De Luca**¹, **Sabata Pierno**¹ (¹Bari, ²Rome)

09.10 Repurposing metformin in Duchenne muscular dystrophy: a long-term preclinical evaluation in the dystrophic mdx mouse model
Paola Mantuano¹, **Francesca Sanarica**¹, **Elena Conte**¹, **Maria Grazia Morgese**², **Roberta Francesca Capogrosso**¹, **Anna Cozzoli**¹, **Adriano Fonzino**¹, **Angelo Quaranta**¹, **Jean Francois Rolland**³, **Michela De Bellis**¹, **Giulia Maria Camerino**¹, **Luigia Trabace**¹, **Annamaria De Luca**¹ (¹Bari, ²Foggia, ³Bresso)

09.20 Tubular aggregate myopathy caused by Orail and STIM1 mutations: a functional study in myoblast and myotubes of affected patients toward the identification of new therapeutic targets
Elena Conte¹, **Giulia Maria Camerino**¹, **Alessandra Pannunzio**¹, **Dalila Sahbani**¹, **Concetta Altamura**¹, **Marina Mora**², **Lorenzo Maggi**², **Ornella Cappellari**¹, **Annamaria De Luca**¹, **Mauro Coluccia**¹, **Paola Imbrici**¹, **Antonella Liantonio**¹ (¹Bari, ²Milan)

SALA 101

08.30 ORAL COMMUNICATIONS

10.30 THE PHARMACOLOGY OF ALS AND OTHER RARE DISEASES (cont.)

09.30 Characterization of a tubular aggregate myopathy mouse model

Celia Cordero Sanchez¹, Beatrice Riva¹, Simone Reano¹, Alessandra Bertoni¹, Matteo Garibaldi², Federico Alessandro Ruffinatti¹, Nicoletta Filigheddu¹, Armando A. Genazzani¹, Cristina Travelli¹ (¹Novara, ²Rome)

09.40 Study of novel modulators of store-operated calcium entry as a therapy for tubular aggregate myopathy

Beatrice Riva¹, Celia Cordero Sanchez¹, Simone Reano¹, Matteo Garibaldi², Tracey Pirali¹, Marta Serafini¹, Rosanna Di Paola³, Nicoletta Filigheddu¹, Armando A. Genazzani¹ (¹Novara, ²Rome, ³Messina)

09.50 miR-206 reduces the severity of motor neuron degeneration and prevents NCX2 up-regulation in the facial nucleus and in the brain stem of a genetic smn^{-/-}, hSMN2^{+/-}, hSMNΔ^{+/+7} mouse model of spinal muscular atrophy (SMA)

Valeria Valsecchi, Serenella Anzilotti, Giusy Laudati, Angelo Serani, Giuseppe Pignataro, Lucio Annunziato (Naples)

10.00 Anomalous Kv7 potassium channel activity in human Malignant Hyperthermia syndrome unmasks a key role for H₂S and persulfidation in skeletal muscle

Valentina Vellecco¹, Alma Martelli², Iris Sofia Bibli³, Onorina Laura Manzo¹, Elisabetta Panza¹, Valentina Citi², Vincenzo Calderone², Gianfranco de Dominicis¹, Caterina Cozzolino¹, Marianna Vallifuoco¹, Elisabetta Maria Basso¹, Martina Mariniello¹, Ingrid Fleming³, Antonio Mancini¹, Mariarosaria Bucci¹, Giuseppe Cirino¹ (¹Naples, ²Pisa, ³Frankfurt am Main - Germany)

10.10 Analytical and biochemical analysis of trans-sulfuration pathway-related genes, proteins and metabolites in skeletal muscles of MDX mice, a murine model of Duchenne's muscle dystrophy

Elisabetta Panza¹, Valentina Vellecco¹, Fabio Arturo Iannotti², Onorina Laura Manzo¹, Deborah Paris², Giuseppe Cirino¹, Mariarosaria Bucci¹ (¹Naples, ²Pozzuoli)

10.20 Mexiletine and tocainide analogues as lead blockers of Nav1.4 channel: structure-activity relationship studies and potential implication for the antimyotonic activity

Michela De Bellis, Diana Conte Camerino, Annamaria De Luca (Bari)

10.30 An overview of the safety of deferiprone in paediatric patients with congenital haemoglobinopathies and chronic iron overload

Adriana Ceci¹, Rosa Conte¹, Antonella Didio¹, Donato Bonifazi¹, Mariagrazia Felisi², Viviana Giannuzzi¹, Fedele Bonifazi¹ (¹Bari, ²Pavia)

AUDITORIUM

08.30 SYMPOSIUM
10.30 FROM OLD TO NEW DRUGS OF ABUSE: NEW KNOWLEDGE TO IMPROVE PREVENTION
Chairpersons: **Filippo Drago** (Catania), **Vincenzo Micale** (Catania)

08.30 Effects of adolescent THC exposure in mice: behavioural and MRI studies
Carsten T. Wotjak (Munich - Germany)

08.50 Endogenous opioid system as a cross-road in substance use disorders (SUD): focus on MDMA, cell redox balance and adolescence
Patrizia Romualdi (Bologna)

09.10 Persistent alterations in brain activity associated with excessive intake of cocaine
Marcello Solinas (Poitiers - France)

09.30 Transcriptional regulation of prodynorphin gene in alcohol dependence: preclinical and clinical evidence
Claudio D'Addario (Teramo)

09.50 Impact of the hormonal *milieu* on addictive behavior
Liana Fattore (Cagliari)

10.10 Ultrasonic vocalizations in rodents as a tool for evaluating neuroplastic effects of psychoactive drugs
Nicola Simola (Cagliari)

10.30 SPONSORED SYMPOSIUM (see page 133)
11.30

AUDITORIUM

12.30 PLENARY LECTURE

13.30

Introduced by: **Giorgio Cantelli Forti** (Bologna)

Quantitative clinical pharmacology: beyond empirical evidence in the era of precision medicine

Oscar Della Pasqua (London - United Kingdom)

14.30 SYMPOSIUM

16.30 PHARMACOTHERAPY IN THE ELDERLY: FROM CLINICAL TRIALS TO THE APPROPRIATE USE

with an unconditioned educational support

Chairpersons: **Roberto Bernabei** (Rome), **Alessandro Mugelli** (Florence)

14.30 Relevant things in the management of polypharmacy in the elderly

Graziano Onder (Rome)

14.50 Research questions and study designs in patients over 65

Gianluca Trifirò (Messina)

15.10 Indicators of inappropriate use of drugs in the elderly: role of health databases for monitoring the phenomenon

Elisabetta Poluzzi (Bologna)

15.30 Adherence to therapy in the elderly

Francesco Scaglione (Milan)

15.50 Drug therapy in the elderly: the opportunities for pharmacovigilance

Giovambattista De Sarro (Catanzaro)

16.10 Discussion

AUDITORIUM

16.30 SYMPOSIUM

18.30 THE EXPERIMENTAL AND CLINICAL PHARMACOLOGY OF NUTRACEUTICALS

Chairpersons: **Gioacchino Calapai** (Messina), **Gabriela Mazzanti** (Rome)

16.30 Nutraceuticals: a brief overview

Angelo Antonio Izzo (Naples)

16.45 Chemopreventive use of polyphenols on angiogenesis-dependent malignancies
Lucia Morbidelli (Siena)

17.05 Hydrogen sulfide-based nutraceuticals: pharmacological data and clinical evidence

Vincenzo Calderone (Pisa)

17.25 Omega 3 fatty acids and health. Evidence, Ignorance, and Significance
Francesco Visioli (Padua)

17.45 Legislation of nutraceuticals

Heide De Togni (Verona), **Floriana Raso** (Bolzano)

18.10 Discussion

18.30 SIF GENERAL ASSEMBLY

20.00

SALA ONICE

08.30 SYMPOSIUM

10.00 NEW MOLECULAR PATHWAYS IN CARDIOVASCULAR HOMEOSTASIS: PHARMACOLOGICAL PERSPECTIVES

with an unconditioned educational support

Chairpersons: **Elisabetta Cerbai** (Florence), **Francesco Rossi** (Naples)

08.30 Electromechanical alterations in diseased cardiomyocytes: drugs revisited
Raffaele Coppini (Florence)

08.45 Kv7 channels in the vasculature: from the physiologic role to the pathologic alterations in hypertension
Vincenzo Barrese (Naples)

09.00 SGLT2 inhibitors and failing heart: beyond glycemic control
Konrad Urbanek (Naples)

09.15 Glucocorticoid-induced leucine zipper (GILZ) plays a protective role in cardiomyocytes in a mouse model of heart failure
Stefano Bruscoli (Perugia)

09.30 Gaseous signals in cardiovascular function
Mariarosaria Bucci (Naples)

09.45 Discussion

10.00 SPONSORED LECTURE (see page 133)

10.30

SALA ONICE

10.30 SYMPOSIUM

12.30 TEACHING PHARMACOLOGY

Chairpersons: **Giuseppe Cirino** (Naples),
Peter Ferdinandy (Budapest - Hungary),
Armando Genazzani (Novara)

10.30 May feature films and TV medical dramas help to improve the teaching of pharmacology?

Josep Eladi Baños (Vic - Spain)

10.50 Teaching Pharmacology for the new generation of students: challenges and opportunities

Claudia Cavadas (Coimbra - Portugal)

11.10 Teaching pharmacology and clinical pharmacology in Hungary, gradual and postgradual courses

Zsuzsanna Helyes (Pecs - Hungary)

11.30 Medical simulation in pharmacology learning and retention: a comparison study with traditional teaching in undergraduate medical students

Francesco Squadrito (Messina)

11.50 Prescribing skills of medical students: a European perspective

Fabrizio De Ponti (Bologna)

12.10 Discussion

15.00 SPONSORED SYMPOSIUM (see page 133)

16.00

SALA ONICE

16.00 SYMPOSIUM

17.30 NEW PHARMACOLOGICAL PERSPECTIVES FOR THE TREATMENT OF AUTISM SPECTRUM DISORDER

Chairpersons: **Daniela Parolaro** (Milan), **Viviana Trezza** (Rome)

16.00 Cannabidiol ameliorates autism-like behaviors and reduces glial alterations induced by prenatal valproic acid exposure in rats

Erica Zamberletti (Varese)

16.20 N-methyl-D-aspartate, metabotropic glutamate subtype 5 and serotonin 5HT-7 receptors as possible pharmacological targets in Fragile X Syndrome

Maria Vincenza Catania (Catania)

16.40 Role of phosphodiesterase 2A in the pathophysiology of Fragile X Syndrome and Autism Spectrum Disorder

Barbara Bardoni (Valbonne - France)

17.00 Role of reward system in social behaviour: implications for Autism Spectrum Disorders

Stefano Musardo (Geneva - Switzerland)

17.20 Discussion

17.30 SYMPOSIUM

18.30 TRANSLATING INNOVATIVE AND ADVANCED THERAPIES FOR EPILEPSY. APPLICABILITY TO OTHER NEUROLOGICAL DISEASES

with an unconditioned educational support

Chairpersons: **Michele Simonato** (Ferrara), **Annamaria Vezzani** (Milan)

17.30 New drug discovery approaches. A systems-level framework for drug discovery identifies Csf1R as an anti-epileptic drug target

Michael Johnson (London - United Kingdom)

17.50 New antioxidant and antiinflammatory pharmacological interventions in pharmaco-resistant epilepsy

Annamaria Vezzani (Milan)

18.10 Ex vivo gene therapy. Seizure-suppressant and neuroprotective effects of encapsulated GDNF-producing cells

Michele Simonato (Ferrara)

SALA VERDE

08.30 SYMPOSIUM

09.30 STRESS EXPOSURE AND VULNERABILITY FOR DEPRESSION: IDENTIFICATION OF THERAPEUTIC TARGETS AND INNOVATIVE STRATEGIES FOR PREVENTION

Chairpersons: **Patrizio Blandina** (Florence), **Marco Andrea Riva** (Milan)

08.30 Diet Integration and protective effects against postnatal stress effects

Aniko Korosi (Amsterdam - The Netherlands)

08.50 Serotonergic antidepressant treatment amplifies the influence of the environment on mood

Igor Branchi (Rome)

09.10 Pharmacological and non-pharmacological interventions targeting miRNAs to prevent the negative effect of stress early in life

Annamaria Cattaneo (Brescia)

09.30 SYMPOSIUM

10.30 NOVEL TARGETS FOR STRESS RELATED DISORDERS: FROM DEPRESSION TO NEURODEGENERATIVE DISEASES

Chairpersons: **Rosaria Meli** (Naples), **Luigia Trabace** (Foggia)

09.30 Insulin sensitizers and stress related disorders in obesity: role of gut-brain axis

Giuseppina Mattace Raso (Naples)

09.45 Dynamic dissection of short- and long-term consequences of stress: a matter of resilience and vulnerability

Maurizio Popoli (Milan)

10.00 HPA axis hyperactivation and depressive-like phenotype in female rats exposed to lifelong nutritional OMEGA-3 deficiency: crosstalk between kynurenine and immune system

Maria Grazia Morgese (Foggia)

10.15 GLP-1: new target in neurodegenerative and psychiatric pathologies

Rita Citraro (Catanzaro)

SALA VERDE

10.30 SYMPOSIUM

12.30 THE NEW FRONTIERS OF DRUG TREATMENT OF HEADACHES with an *unconditioned educational support* PART 1

Chairperson: **Alessandro Mugelli** (Florence)

10.30 Migraine is a social disease
Arianna Lazzarini (Rome), **Giuditta Pini** (Pisa)

10.45 Migraine in Italy: a survey by CENSIS
Concetta Maria Vaccaro (Rome)

11.00 The burden of migraine: when gender makes the difference
Rosanna Tarricone (Milan)

11.15 Epidemiological and clinical aspects of migraine
Francesco Pierelli (Latina)

PART 2

Chairpersons: **Pierluigi Navarra** (Rome), **Maria Angela Sortino** (Catania)

11.30 CGRP in Migraine and Cluster Headache: from neurogenic inflammation to monoclonal antibodies
Pierangelo Geppetti (Florence)

11.50 Monoclonal CGRP antibodies: from clinical trials to real life evidence
Piero Barbanti (Rome)

12.10 ROUND TABLE: ANTI-CGRP MONOCLONAL ANTIBODIES. THE INNOVATION FOR HEADACHE PATIENTS AND THE HEALTH SYSTEM

Participants

Elio Clemente Agostoni (Milan)

Pierangelo Geppetti (Florence)

Gioacchino Tedeschi (Naples)

SALA VERDE

14.30 SYMPOSIUM

16.00 HEART FAILURE BEYOND THE HEART

with an unconditioned educational support

Chairpersons: **Liberato Berrino** (Naples), **Francesco Squadrito** (Messina)

14.30 Cardiocirculatory failure and miRNA: focus on the pathobiology of vascular wall in diabetes

Daniele Torella (Catanzaro)

14.45 Renal ion channels as therapeutic targets in heart failure and related multiorgan dysfunction: new evidences

Antonella Liantonio (Bari)

15.00 Platelet reactivity in cardiovascular risk: a focus on ectonucleoside triphosphate diphosphohydrolase 1

Elisabetta Caiazzo (Naples)

15.15 Involvement of pulmonary circulation in the progression of heart failure with preserved ejection fraction

Antonella De Angelis (Naples)

15.30 Contribution of adenosine A₂ receptor activation to the progression of fibrosis and cardiac function in an experimental model of cardiomyopathy

Natasha Irrera (Messina)

15.45 Discussion

SALA VERDE

16.00 SYMPOSIUM

17.30 FUTURE PHARMACOTHERAPY OF OBESITY: NEW DRUGS ON THE HORIZON

Chairpersons: **Michele Carruba** (Milan), **Francesco Squadrito** (Messina)

16.00 The available anti-obesity drugs: from therapeutic failure to new treatment opportunities?

Domenico Cucinotta (Messina)

16.15 The convertible adipose organ: a new target for anti-obesity drugs?

Saverio Cinti (Ancona)

16.30 Amino acids and thermogenesis: a new pharmacology for obesity

Enzo Nisoli (Milan)

16.45 New anti-obesity drugs on the horizon

Alessandra Bitto (Messina)

17.00 Prescribing pattern of anti-obesity drugs in clinical practice

Vincenzo Arcoraci (Messina)

17.15 Bariatric surgery: a benchmark for efficacy

Dario Tuccinardi (Rome)

17.30 SYMPOSIUM

18.30 PHARMADVANCES, THE OFFICIAL SIF JOURNAL: TAKING THE CHALLENGE IN THE NEW DYNAMIC SCENARIO IN PHARMACOLOGY

Chairpersons: **Monica Di Luca** (Milan), **Luca Pani** (Miami - USA)

17.30 PharmAdvances, the official SIF journal

Luca Pani (Miami - USA)

17.45 Alberico Benedicenti Awards Winners (3 presentations)

SALA LIMONAIA

08.30 SYMPOSIUM

12.30 WHAT IS THE REAL-WORLD EVIDENCE TO BE GENERATED IN PRE- AND POST-MARKETING SETTING?

with an unconditioned educational support

Chairpersons: **Andrea Pierini** (Monza), **Gianluca Trifirò** (Messina)

- 08.30** Introduction and presentation of the book "Real World Evidence and drugs: application in the Italian context"
Achille P. Caputi (Messina)

REAL WORLD EVIDENCE DURING CLINICAL DEVELOPMENT OF DRUGS

- 08.40** Usefulness, credibility and perspectives of real-world evidence: a glance to method
Giovanni Corrao (Milan)
- 09.00** Round Table with Stakeholders
Participants
Annalisa Campomori (Trento)
Giampiero Mazzaglia (Milan)
Francesca Patarnello (Basiglio)

REAL WORLD EVIDENCE IN THE ACCELERATED APPROVAL PROGRAMS

- 09.45** How RWE may be useful for regulatory decisions
Antonio Addis (Rome)
- 10.05** Round Table with Stakeholders
Participants
Armando Genazzani (Novara)
Patrizia Popoli (Rome)
Dario Scapola (Monza)

- 10.50** Coffee break

REAL WORLD EVIDENCE IN POST-MARKETING SETTING

- 11.10** Presentation of the document on observational research
Carlo Pettrini (Rome)
- 11.25** Regulatory and HTA perspectives on real-world data: current options and future perspectives
Pierluigi Russo (Rome)
- 11.40** Round Table with Stakeholders
Participants
Mario Braga (Florence)
Annalisa Capuano (Naples)
Anna Rosa Marra (Rome)

SALA LIMONAIA

15.00 LECTURE

15.30 *with an unconditioned educational support*

Introduced by: **Pier Luigi Canonico** (Novara)

New pharmacological perspectives for the treatment of spinal muscular atrophy
Eugenio Mercuri (Rome)

15.30 SYMPOSIUM

17.00 TREAT-NMD ADVISORY COMMITTEE FOR THERAPEUTICS (TACT): A
TEN YEAR EXPERIENCE OF AN EXPORTING MODEL FOR DE-RISKING
THE DEVELOPMENT OF ORPHAN DRUG AND ADVANCED THERAPIES IN
RARE DISORDER

with an unconditioned educational support

Chairpersons: **Annamaria De Luca** (Bari),
Volker Straub (Newcastle Upon Tyne - United Kingdom)

15.30 Ten years of TACT

Volker Straub (Newcastle Upon Tyne - United Kingdom)

15.50 Role of TREAT-NMD and TACT on standardization and independent validation
of pre-clinical assessments for rare neuromuscular diseases
Kanneboyina Nagaraju (Johnson City - USA)

16.10 Issues in designing a clinical trial in rare diseases: what we learned from Treat-
NMD and TACT
Eugenio Mercuri (Rome)

16.30 TACT as a model to export for other rare disease: the C4C project
Catherine Turner (Newcastle upon Tyne - United Kingdom)

16.45 The patient perspective on TACT
Fabiola Bertinotti (Monza)

17.00 SPONSORED LECTURE (see page 134)

17.30

17.30 "COLLEGIO NAZIONALE DEI FARMACOLOGI
18.30 UNIVERSITARI" ASSEMBLY

SALA 4

08.30 SYMPOSIUM
11.00

PURINES AS IMPORTANT PLAYERS IN NEURODEGENERATION OF DIFFERENT PATHOLOGIES

Chairpersons: **Felicita Pedata** (Florence), **Patrizia Popoli** (Rome)

- 08.30** Extracellular vesicles released by ATP-activated microglia in early synaptic dysfunction in Alzheimer's Disease
Martina Gabrielli (Milan)
- 08.45** Effects of A_1 agonists and A_{2A} antagonists in neuroinflammation and neurodegenerative diseases
Alex Marti Navia (Camerino)
- 09.00** Adenosine A_{2B} receptors contribute to *in vitro* ischemic damage and inhibit oligodendrocyte progenitor cell differentiation in culture
Elisabetta Coppi (Florence)
- 09.15** Activated microglia regulate the response of oligodendrocyte precursors expressing the P2Y-like receptor GPR17 following stroke
Marta Fumagalli (Milan)
- 09.30** Potential therapeutic role of adenosine A_{2A} receptors in a mouse model of Fragile X Syndrome
Alberto Martire (Rome)

ROLE OF PURINES IN THE CONTROL OF THE IMMUNE SYSTEM AT THE CROSSROAD BETWEEN INFLAMMATION AND NEOPLASIA

Chairpersons: **Francesco Caciagli** (Chieti), **Katia Varani** (Ferrara)

- 09.45** Enteric glia and colonic neuromotor dysfunctions in the presence of obesity: role of A_{2B} receptors
Luca Antonioli (Pisa)
- 10.00** CD73/adenosine signalling as player of the inflammatory response
Carla Cicala (Naples)
- 10.15** A new role for the A_{2A} adenosine receptor in suppressing CD8+T-cell functions through inhibition of Notch1 receptor activation
Silvana Morello (Salerno)
- 10.30** Adenosine receptors as pathway for beneficial effects of pulsed electromagnetic fields
Fabrizio Vincenzi (Ferrara)
- 10.45** Influence of Guanosine-PNP-Guanine system on glioma cell proliferation and invasiveness
Mariachiara Zuccarini (Chieti)

SALA 4

11.00 SYMPOSIUM
12.30 PERSONALIZING COPD MANAGEMENT: FROM CLINICAL NEEDS TO THERAPEUTIC SOLUTION
with an unconditioned educational support
Chairpersons: **Patrizia Hrelia** (Bologna), **Maria Gabriella Matera** (Naples)

11.00 Biological mechanisms behind COPD
Simonetta Baraldo (Padua)

11.20 Available pharmacological treatments and potential novel biomarkers
Paolo Montuschi (Rome)

11.40 Latest research news on COPD: an update on ongoing trials
Marco Contoli (Ferrara)

12.00 Potential novel biomarkers in COPD: the Epigenetic point of view
Sabrina Angelini (Bologna)

12.10 Discussion

14.30 ROUND TABLE
16.30 ANIMAL WELFARE AND SCIENTIFIC RESEARCH IN ITALY: NEWS ON LEGISLATIVE ACTIVITY AND ORGANIZATION OF THE AUTHORIZATIVE PROCESS AND MONITORING OF LABORATORY ANIMAL USE
Chairpersons: **Renato Corradetti** (Florence), **Ester Pagano** (Naples)

14.30 Focus on the implementation of new measures after the transposal of the Directive 63/2010/UE in Italy
Vincenzo Ugo Santucci (Rome)

14.50 Animal protection and quality of research. Managing ethical, cultural and scientific problems in Italy
Rodolfo Nello Lorenzini (Rome)

15.10 National initiative of OPBA coordination: the importance of participating
Giuliano Grignaschi (Milan)

15.30 Question time

SALA 4

16.30 ORAL COMMUNICATIONS

18.30 NEW TARGETS FOR PHARMACOLOGICAL INTERVENTION IN PSYCHIATRIC DISORDERS

Chairpersons: **Raffaella Molteni** (Milan), **Fabio Tascedda** (Modena)

16.30 Antidepressants and cerebral energy metabolism: new functional proteomic insights

Federica Ferrari¹, **Fabio Tascedda²**, **Nicoletta Brunello²**, **Roberto Federico Villa¹** (¹Pavia, ²Modena)

16.40 Stress-induced modulation of the oxidative balance in the rat brain: effect of the antipsychotic lurasidone

Maria Serena Paladini¹, **Andrea Carlo Rossetti¹**, **Vittoria Spero¹**, **Paola Brivio¹**, **Mariusz Papp²**, **Francesca Calabrese¹**, **Marco Andrea Riva¹**, **Raffaella Molteni¹** (¹Milan, ²Kracow - Poland)

16.50 The role of N-acetylcysteine in major psychiatric disorders

Beatrice Benatti, **Vera De Carlo**, **Federica Giorgetti**, **Benedetta Grancini**, **Caterina Viganò**, **Bernardo Dell'Osso** (Milan)

17.00 Impact of NADPH oxidase inhibition on ketamine-induced dysfunctions: preclinical findings

Stefania Schiavone, **Maria Grazia Morgese**, **Stefania Dimonte**, **Paolo Tucci**, **Luigia Trabace** (Foggia)

17.10 Neuropsychiatric clinical manifestations in elderly patients treated with hydroxychloroquine: a review article

Anna Larato¹, **Annamaria Mascolo¹**, **Pasquale Maria Berrino¹**, **Pietro Gareri²**, **Alberto Castagna²**, **Annalisa Capuano¹**, **Ciro Manzo¹**, **Liberato Berrino¹** (¹Naples, ²Catanzaro)

17.20 Oxytocin/dopamine receptor bivalent ligands: a new strategy to treat neuropsychiatric and neurodevelopmental disorders

Marta Busnelli, **Arianna Costanzo**, **Francesca Santini**, **Alessandro Gori**, **Bice Chini** (Milan)

17.30 Investigating the molecular mechanisms of trazodone antidepressant activity: impact on trophic factors and circadian rhythm genes

Lucia Carboni, **Francesca F. Caputi**, **Laura Rullo**, **Serena Stamatakis**, **Sanzio Candeletti**, **Patrizia Romualdi** (Bologna)

17.40 A single exposure to cocaine during adolescence segregates anhedonic and resilient rats: the role of the neurotrophin BDNF

Francesca Mottarlini, **Francesca Telese**, **Giorgia Botton**, **Lucia Caffino**, **Fabio Fumagalli** (Milan)

SALA 4

16.30 ORAL COMMUNICATIONS

18.30 NEW TARGETS FOR PHARMACOLOGICAL INTERVENTION IN PSYCHIATRIC DISORDERS (cont.)

- 17.50 Potential effects of a novel formyl peptide receptor 2 agonist in two mouse models of autism spectrum disorder
Claudia Cristiano¹, Enza Lacivita², Floriana Volpicelli¹, Roberto Russo¹, Carla Perrone Capano¹, Marcello Leopoldo², Antonio Calignano¹ (¹Naples, ²Bari)
- 18.00 Electrophysiological investigation of the reward system in the valproic acid model of autism
Daniela Iezzi¹, Carmen Carbone¹, Alice Ilari², Michele Petrella², Guido Mannaioni¹, Alessio Masi² (¹Florence, ²Camerino)
- 18.10 Depression and brain fog "clearing up" by palmitoylethanolamide in diet-induced obese mice
Adriano Lama¹, Claudio Pirozzi¹, Chiara Annunziata¹, Maria Grazia Morgese², Claudia Cristiano¹, Luigia Trabace², Antonio Calignano¹, Rosaria Meli¹, Giuseppina Mattace Raso¹ (¹Naples, ²Foggia)
- 18.20 Investigating the role of glial cells in a pharmacological model of autism spectrum disorders
Maria Rosanna Bronzuoli¹, Roberta Facchinetti¹, Alexej Verkhratsky², Luca Steardo¹, Viviana Trezza¹, Caterina Scuderi¹ (¹Rome, ²Manchester - United Kingdom)

ALETTA 202

- 08.30** SYMPOSIUM SIF-SITOX
10.00 DRUG-INDUCED HYPERSENSITIVITY REACTIONS: FROM CLINICAL TO BETTER PRECLINICAL SAFETY ASSESSMENT
Chairperson: **Emanuela Corsini** (Milan)
- 08.30** Pharmacovigilance: data on the incidence of allergic reactions to drugs
Manuela Casula (Milan)
- 08.50** Clinical Outcomes due to Immunogenicity of Biologicals: mechanisms, predictive markers and desensitisation procedures
Enrico Maggi (Rome)
- 09.10** Tools to investigate and avoid drug-hypersensitivity in drug development
Emanuela Corsini (Milan)
- 09.30** Antibodies modulating the immune response to cancers: mechanisms and potential adverse effects
Giuseppe Nocentini (Perugia)
- 09.50** Discussion
- 10.00** SYMPOSIUM
11.00 REWARD MECHANISMS IN ANOREXIA NERVOSA: PRECLINICAL AND CLINICAL CORRELATES
Chairpersons: **Paola Fadda** (Cagliari), **Fabio Fumagalli** (Milan)
- 10.00** The endocannabinoid system and its involvement in the physiopathology of Anorexia nervosa
Maria Scherma (Cagliari)
- 10.20** Activity-based anorexia alters a muscle to brain crosstalk in adolescent female rats
Lucia Caffino (Milan)
- 10.40** The role of depressive symptoms in eating disorders
Enrico Collantoni (Padua)
- 11.00** SPONSORED LECTURE (see page 134)
11.30

ALETTA 202

11.30 SYMPOSIUM

12.30 CLINICALLY RELEVANT DRUG INTERACTIONS OF NEW PSYCHOTROPIC DRUGS

Chairpersons: **Filippo Drago** (Catania), **Giorgio Racagni** (Milan)

11.30 Clinically relevant drug interactions with second-generation antipsychotics
Edoardo Spina (Messina)

11.50 Clinically significant drug interactions of newer antidepressants
Filippo Caraci (Catania)

12.10 Drug interactions between medications used to treat psychiatric and medical conditions
Fabio Tascedda (Modena)

14.30 ROUND TABLE

15.30 PHARMACEUTICAL POVERTY IN ITALY

Chairpersons: **Silvano Cella** (Milan), **Sergio Daniotti** (Florence)

Participants

Silvia Bini (Milan)

Gianfrancesco Fiorini (Carate Brianza)

Salvatore Geraci (Rome)

Sandro Mancinelli (Rome)

Antonello Emilio Rigamonti (Milan)

ALETTA 202

15.30 SYMPOSIUM

17.00 PHARMACOLOGICAL MODULATION OF NEURAL STEM/PROGENITOR CELLS

Chairpersons: **Ilaria Decimo** (Verona), **Guido Francesco Fumagalli** (Verona)

15.30 Pharmacological induction of oxidative metabolism in neural stem cells enhances neuronal maturation
Francesco Bifari (Milan)

15.45 Immature neurons: a novel target to modulate neurogenesis?
Luca Bonfanti (Grugliasco)

16.00 Strategies to support neural progenitor survival and maturation during CNS development: a lesson from the microcephalic Cit-K KO mouse model
Enrica Boda (Orbassano)

16.15 Neural progenitor cells as targets for clinically relevant drugs
Mariagrazia Grilli (Novara)

16.30 Development of brain organoids for drug screening and regenerative medicine
Ilaria Decimo (Verona)

16.45 Discussion

17.00 IUPHAR/SIF JOINT ROUND TABLE ON THE
18.30 MEDICATION WITHOUT HARM AND THE 3RD WHO GLOBAL PATIENT SAFETY CHALLENGES

Chairpersons: **Alessandro Mugelli** (Florence),
David John Webb (Edinburgh - United Kingdom)

The challenges in medicine safety and how to tackle them especially in critical areas of health: the role of clinical pharmacology, public databases analysis and policymakers

Participants

Carla Carnovale (Milan)
Emilio Giuseppe Clementi (Milan)
Angela Ianaro (Naples)
Guido Mannaioni (Florence)
Caroline Samer (Geneva - Switzerland)
Guilherme Suarez-Kurtz (Brazil)
Michael Spedding (Le Vesinet - France)
David John Webb (Edinburgh - United Kingdom)

Proposta di legge "istituzione sperimentale dei centri operativi e gestionali del farmaco presso le strutture sanitarie pubbliche, per promuovere la sicurezza, l'efficacia e l'appropriatezza nell'uso dei farmaci"
Angela Ianaro (Naples)

ALETTA 203

08.30 SPONSORED SYMPOSIUM (see page 135)
09.30

09.30 LECTURE
10.00 *with an unconditioned educational support*

Introduced by: **Andrea Novelli** (Florence)

Antimicrobial resistance: the main public health interventions to implement
Francesco Menichetti (Pisa)

10.00 SPONSORED SYMPOSIUM (see page 135)
11.00

11.00 LECTURE
11.20 Introduced by: **Giorgio Cantelli Forti** (Bologna), **Gianni Sava** (Trieste)

Vaccines: manufacturing and supply chain
Massimo Visentin (Rome)

11.20 LECTURE
11.40 Introduced by: **Giorgio Cantelli Forti** (Bologna), **Gianni Sava** (Trieste)

The role of pharmaceutical industry in the response to AMR
Loredana Bergamini (Cologno Monzese)

ALETTA 203

14.30 SYMPOSIUM
16.00 PHARMACO-TOXICOLOGICAL ASPECTS OF NOVEL PSYCHOACTIVE SUBSTANCES
Chairpersons: **Liana Fattore** (Cagliari), **Matteo Marti** (Ferrara)

14.30 Pharmacotoxicological effects of NPS: preclinical evidence
Matteo Marti (Ferrara)

15.00 Neuropharmacology of NPS: focus on synthetic cannabinoids
Maria Antonietta De Luca (Cagliari)

15.30 New ketamine analogues: behavioral and neurotoxicological effects
Liana Fattore (Cagliari)

16.00 LECTURE
16.30 *with an unconditioned educational support*

Introduced by: **Guido Mannaioni** (Florence)

Opioids epidemic: proportions and technological countermeasures
Luca Pani (Miami - USA)

ALETTA 203

16.30 SYMPOSIUM

18.30 NEW PHARMACOLOGICAL TREATMENT FOR OCULAR DISEASES

Chairpersons: **Filippo Drago** (Catania), **Emanuela Masini** (Florence)

16.30 From gene therapy to new drugs: future horizons in aged macular degeneration

Stanislao Rizzo (Florence)

16.50 Non-pharmacological treatments in ophthalmology: when the implausible becomes a benchmark

Filippo Drago (Catania)

17.10 Hybrid drugs for the management of glaucoma

Claudiu Supuran (Sesto Fiorentino)

17.30 The role of nitric oxide in ocular hypertension and glaucoma: emerging new therapies

Francesco Impagnatiello (Bresso)

17.50 Histamine H₃ receptor as a new therapeutic target for glaucoma and progressive optic neuropathy

Cecilia Lanzi (Florence)

18.10 Discussion

SALA 101

08.30 ORAL COMMUNICATIONS

10.30 NOVEL POTENTIAL TARGETS IN NEUROPROTECTION

Chairpersons: **Tommaso Cassano** (Foggia), **Andrea Tarozzi** (Rimini)

- 08.30 Chronic inhibition of fatty acid amide hydrolase. The Alzheimer-like phenotype in 3×TG-AD mice

Tommaso Cassano¹, **Silvio Calcagnini**², **Gaurav Bedse**², **Michele Lavecchia**², **Alessandra Caruso**², **Sergio Scaccianocce**², **Marialuisa de Ceglia**², **Cristina Anna Gallelli**², **Marzia Friuli**², **Adele Romano**², **Silvana Gaetani**² (¹Foggia, ²Rome)

- 08.40 The kynurenine pathway as potential target for neuroprotection

Sarah Beggiato, **Maria Cristina Tomasini**, **Sofia Marina Simioni**, **Stefano Guerzoni**, **Luca Ferraro** (Ferrara)

- 08.50 Neuroprotective effects of celecoxib against β -amyloid-induced damage through the regulation of heme oxygenase-1 in SH-SY5Y cells

Emanuela Mhillaj¹, **Vincenzo Cuomo**¹, **Luigia Trabace**², **Cesare Mancuso**¹ (¹Rome, ²Foggia)

- 09.00 Potential targets for neuroprotective agents in Huntington's Disease

Letizia Pruccoli¹, **Gabriella Teti**², **Mirella Falconi**², **Andrea Tarozzi**¹ (¹Rimini, ²Bologna)

- 09.10 Novel curcumin analogues as inhibitors of microglia pro-inflammatory activation in response to amyloid-beta oligomers

Morena Zusso¹, **Gloria Galli**¹, **Lara Luise**¹, **Jessica Battaglia**¹, **Federica Bisceglia**², **Federica Belluti**³, **Ersilia De Lorenzi**², **Pietro Giusti**¹ (¹Padua, ²Pavia, ³Bologna)

- 09.20 Carnosine prevents A β -induced oxidative stress and inflammation in microglial cells: a key role of TGF- β 1

Giuseppe Caruso¹, **Claudia Giuseppina Fresta**², **Nicolò Musso**³, **Mariaconcetta Giambirtone**¹, **Margherita Grasso**¹, **Simona Federica Spampinato**³, **Sara Merlo**³, **Filippo Drago**³, **Giuseppe Lazzarino**³, **Maria Angela Sortino**³, **Susan Marie Lunte**², **Filippo Caraci**³ (¹Troina, ²Lawrence - USA, ³Catania)

- 09.30 Melatonin via SIRT1 activation attenuates microglial neurotoxic effects during hypoxia

Sara Merlo, **Simona Federica Spampinato**, **Grazia Ilaria Caruso**, **Maria Angela Sortino** (Catania)

- 09.40 PQM130, a novel feruloyl-donepezil hybrid compound, exerts neuroprotective effects and ameliorates memory impairments in a mouse model of Alzheimer's Disease

Fabiana Morroni¹, **Giulia Sita**¹, **Agnese Graziosi**¹, **Letizia Pruccoli**², **Andrea Tarozzi**², **Patrizia Hrelia**¹ (¹Bologna, ²Rimini)

SALA 101

08.30 ORAL COMMUNICATIONS

10.30 NOVEL POTENTIAL TARGETS IN NEUROPROTECTION (cont.)

- 09.50 Characterization of a mouse model of primary progressive multiple sclerosis and effects of neuroprotective strategies on disease evolution
Daniela Buonvicino, Giuseppe Ranieri, Sara Pratesi, Daniele Guasti, Alberto Chiarugi (Florence)

- 10.00 The cyclase-associated protein 2 is a novel regulator of cofilin in synaptic plasticity and Alzheimer's Disease
Elena Marcello¹, Silvia Pelucchi^{1,2}, Lina Vandermeulen¹, Lara Pizzamiglio¹, Bahar Aksan³, Jing Yan³, Anja Konietzny⁴, Elisa Bonomi⁵, Barbara Borroni⁵, Marco Rust⁶, Daniele Di Marino⁷, Marina Mikhaylova⁴, Daniela Mauceri³, Flavia Antonucci¹, Fabrizio Gardoni¹, Monica Di Luca¹ (¹Milan, ²Florence, ³Heidelberg - Germany, ⁴Hamburg - Germany, ⁵Brescia, ⁶Marburg - Germany, ⁷Ancona)

- 10.10 Neuroprotective effect of sodium propionate in neuroinflammation models
Marika Lanza, Alessia Filippone, Michela Campolo, Giovanna Casili, Irene Paterniti, Salvatore Cuzzocrea, Emanuela Esposito (Messina)

- 10.20 Neuroprotective effect of dimethylfumarate on oxaliplatin-Induced neuropathic pain
Michela Campolo, Giovanna Casili, Irene Paterniti, Alessia Filippone, Marika Lanza, Salvatore Cuzzocrea, Emanuela Esposito (Messina)

AUDITORIUM

08.30 SYMPOSIUM

10.00 GENETIC OF COGNITIVE DYSFUNCTIONS IN SCHIZOPHRENIA

with an unconditioned educational support

Chairperson: **Filippo Drago** (Catania)

08.30 Introduction

08.35 Genetic modulators of cognitive responses to antipsychotic drugs
Francesco Papaleo (Genoa)

08.55 Epistatic interaction between dopamine D3 receptor and dysbindin modulates cortical functions and behaviors related to schizophrenia
Gian Marco Leggio (Catania)

09.15 Genetic modulators of social withdrawal in schizophrenia and other disorders
Alessandro Serretti (Bologna)

09.35 Stratification of schizophrenia based on clinical, cognitive and neuroimaging features
Paolo Brambilla (Milan)

09.55 Discussion

10.00 SYMPOSIUM

11.00 THE ROLE OF INNOVATIVENESS IN THE ACCESS TO MEDICINES

Chairpersons: **Pier Luigi Canonico** (Novara), **Armando Genazzani** (Novara)

10.00 Comparative analysis across Europe
Claudio Jommi (Milan)

10.30 The evaluation of therapeutic innovativeness in Italy: state of the art and possible future scenarios
Patrizia Popoli (Rome)

11.00 PLENARY LECTURE

12.00 Introduced by: **Giorgio Racagni** (Milan)

The medicine of tomorrow: the future role of regulators (EMA Regulatory Science to 2025)

Guido Rasi (Amsterdam - The Netherlands)

12.00 CONCLUSIONS AND AWARDS

13.00

SALA ONICE

- 09.30** SYMPOSIUM
11.00 NOVEL INSIGHTS IN NEUROINFLAMMATION AND ANGIOGENESIS TO
TARGET RETINAL DISEASES
Chairpersons: **Claudio Bucolo** (Catania), **Marina Ziche** (Siena)
- 09.30** Metabolism, oxidative stress and inflammation in endothelial cells: relevance in
vascular retinopathy
Sandra Donnini (Siena)
- 10.00** New pharmacological targets to treat diabetic retinopathy
Settimio Rossi (Naples)
- 10.30** Identification and validation of miRNAs as novel biomarkers of retinal diseases
Chiara Bianca Maria Platania (Catania)

SALA VERDE

- 09.00 SYMPOSIUM**
11.00 PHARMACOGENETICS IMPLEMENTATION: BARRIERS, CHALLENGES AND SOLUTIONS
 Chairpersons: **Sabrina Angelini** (Bologna), **Alessio Squassina** (Cagliari)
- 09.00** Circulating lncRNA and miRNA and clinical outcome in cancer patients
Gloria Ravegnini (Bologna)
- 09.20** The role of pharmacogenetics in multi-drug regimens
Valeria Conti (Salerno)
- 09.40** Liquid biopsy to monitor treatment outcome in cancer patients
Marzia Del Re (Pisa)
- 10.00** Pharmacogenomics of immunomodulators in pediatric patients
Gabriele Stocco (Trieste)
- 10.20** Bioinformatics approaches to identify functionally relevant genetic variants: application to the pharmacogenomics of lithium response in bipolar disorder
Claudia Pisanu (Cagliari)
- 10.40** Pharmacogenetics Implementation in clinical practice
Erika Cecchin (Aviano)

SALA LIMONAIA

08.30 SYMPOSIUM

09.30 THE EU REGULATORY SYSTEM FOR ORPHAN DRUGS

Chairperson: **Annamaria De Luca** (Bari), **Robert Nisticò** (Rome)

08.30 How to obtain an orphan designation
Robert Nisticò (Rome)

08.50 Scientific advice/protocol assistance and prime scheme to facilitate a marketing authorization application
Armando Magrelli (Rome)

09.10 The orphan drugs procedure in the patient perspective
Angelo Loris Brunetta (Castelvoturno)

09.30 SYMPOSIUM

11.00 STRATEGIES FOR MONITORING ORPHAN DRUGS AND RARE DISEASES IN REAL WORLD SETTING

with an unconditioned educational support

Chairpersons: **Annamaria De Luca** (Bari), **Salvatore Scondotto** (Palermo)

09.30 Drug expenditure of orphan drugs in Italy
Francesco Trotta (Rome)

09.50 Data sources and priorities for post-marketing surveillance of orphan drugs
Gianluca Trifirò (Messina)

10.10 The role of national registry of rare diseases
Domenica Taruscio (Rome)

10.30 Claims databases for investigating rare diseases and orphan drugs
Francesco Barone-Adesi (Novara)

10.50 Discussion

SALA 4

09.00 SYMPOSIUM

11.00 PSYCHOACTIVE COMPOUND-INDUCED NEUROPSYCHIATRIC DISORDERS: FROM MOLECULAR PATHWAYS TO NOVEL PHARMACOLOGICAL OPPORTUNITIES

Chairpersons: **Vincenzo Cuomo** (Rome), **Luigia Trabace** (Foggia)

09.00 Metaplasticity as a potential mechanism of pharmacological intervention in addiction and neuropsychiatric disorders

Cristiano Chiamulera (Verona)

09.20 Novel targets and molecular mechanisms underlying neuropsychiatric effects of early ketamine administration: evidence from a preclinical study

Stefania Schiavone (Foggia)

09.40 Mothering under alcohol influence: a behavioural analysis from the mother-infant dyad to offspring vulnerable phenotypes

Carla Cannizzaro (Palermo)

10.00 Genetic traits conferring predisposition to excessive alcohol drinking in msP rats also contribute to enhance vulnerability to psychostimulants and opioids abuse

Roberto Ciccocioppo (Camerino)

10.20 Effect of adolescent exposure to cocaine on cognition: focus on the neurotrophin BDNF in the perirhinal cortex

Fabio Fumagalli (Milan)

10.40 Discussion

ALETTA 202

09.00 ORAL COMMUNICATIONS

09.30 HOW NUTRITION AFFECTS THE BRAIN: PERSPECTIVE FOR NEW THERAPIES

Chairpersons: **Lucia Caffino** (Milan), **Elisabetta Gerace** (Florence)

09.00 Preventing immediate and long-term adolescent stress-induced cognitive deficits and gut microbiota alterations by Omega-3 polyunsaturated fatty acids/ Vitamin A diet enrichment

Gustavo Provensi¹, **Scheila Daiane Schmidt²**, **Marcus Boehme³**, **Barbara Rani¹**, **Alessia Costa¹**, **Patrizio Blandina¹**, **Ivan Izquierdo²**, **John F. Cryan³**, **Maria Beatrice Passani¹** (¹Florence, ²Porto Alegre - Brazil, ³Cork - Ireland)

09.10 Implication of undigested gluten peptides on neurological disorders: study of molecular mechanisms in experimental models of epilepsy

Elisabetta Gerace, **Francesco Resta**, **Elisa Landucci**, **Daniela Renzi**, **Alessio Masi**, **Domenico E. Pellegrini-Giampietro**, **Antonio Calabrò**, **Guido Mannaioni** (Florence)

09.20 The glutamate synapse in an animal model of anorexia nervosa

Giorgia Bottan, **Francesca Mottarlini**, **Giorgia Targa**, **Francesca Telese**, **Fabio Fumagalli**, **Lucia Caffino** (Milan)

09.30 SYMPOSIUM

11.00 NEW MOLECULAR TARGETS IN MITOCHONDRIAL DYSFUNCTION OCCURRING IN PARKINSON'S DISEASE: PERSPECTIVES FOR INNOVATIVE PHARMACOLOGICAL STRATEGIES

Chairperson: **Fabrizio Gardoni** (Milan), **Antonella Scorziello** (Naples)

09.30 Alpha-synuclein-induced mitochondrial dysfunction in Parkinson's Disease

Andrey Abramov (London - United Kingdom)

09.50 NCX3 as new molecular target of mitochondrial dysfunction in Parkinson's Disease

Antonella Scorziello (Naples)

10.10 Glutamate as "survival factor" in different models of Parkinson Disease: role of mitochondrial Na⁺/Ca²⁺ exchanger

Silvia Piccirillo (Ancona)

10.30 AKAP1 controls mitochondrial metabolism and oxidative stress response: a potential role in Parkinson's Disease?

Antonio Feliciello (Naples)

10.50 Discussion

ALETTA 203

08.30 ORAL COMMUNICATIONS

10.00 NEW STRATEGIES IN NEUROENDOCRINOPHARMACOLOGY

Chairperson: **Giustino Orlando** (Chieti), **Laura Raimondi** (Florence)

- 08.30 3-iodothyroacetic acid is endowed of antidepressant effect depending on brain histamine release

Annunziatina Laurino, **Manuela Gencarelli**, **Elisa Landucci**, **Lorenzo Cinci**, **Laura Raimondi** (Florence)

- 08.40 Thyroid hormone metabolites, including 3-iodothyronamine (T1AM) and 3-iodothyroacetic acid (TA1) are endowed of neuroprotective effects

Elisa Landucci, **Annunziatina Laurino**, **Manuela Gencarelli**, **Laura Raimondi** (Florence)

- 08.50 Pleiotropic agents against Alzheimer's Disease: *in vitro* toxicological screening on recently developed SG-compounds

Massimiliano Runfola¹, **Simona Sestito**¹, **Grazia Chiellini**¹, **Sheraz Gul**², **Simona Rapposelli**¹ (¹Pisa, ²Hamburg - Germany)

- 09.00 Brown adipogenic reprogramming by palmitoylethanolamide in high fat diet-induced obese mice

Chiara Annunziata¹, **Martina Senzacqua**², **Adriano Lama**¹, **Claudio Pirozzi**¹, **Maria Pina Mollica**¹, **Giuseppina Mattace Raso**¹, **Saverio Cinti**², **Antonio Giordano**², **Rosaria Meli**¹ (¹Naples, ²Ancona)

- 09.10 Role of exogenous dietary advanced glycation end products (AGEs) in the cross-talk mechanisms linking diet, microbiota and metabolic inflammation

Debora Collotta¹, **Alessia Sofia Cento**¹, **Fausto Chiazza**¹, **Roberta Verta**¹, **Thomas Henle**², **Friederike Manig**², **Michael Hellwig**², **Giulia Gaudioso**³, **Francesca Fava**³, **Kieran Tuohy**³, **Manuela Aragno**¹, **Raffaella Mastrocola**¹, **Massimo Collino**¹ (¹Turin, ²Dresden - Germany, ³San Michele all'Adige)

- 09.20 Effects of metformin and aerobic exercise training on the skeletal muscle of a murine model

Eleonora Maniscalco¹, **Giuliana Abbadessa**¹, **Loredana Grasso**¹, **Paolo Borriero**², **Silvia Racca**¹ (¹Turin, ²Rome)

- 09.30 Genistein protects primary murine osteoblasts from oxidative stress in an *in vitro* experimental model

Federica Mannino, **Natasha Irrera**, **Giovanni Pallio**, **Domenica Altavilla**, **Francesco Squadrito**, **Alessandra Bitto** (Messina)

- 09.40 Effects of MIA-690 administration on feeding, locomotor activity and hypothalamic neuromodulators in mice

Lucia Recinella¹, **Sheila Leone**¹, **Annalisa Chiavaroli**¹, **Giustino Orlando**¹, **Claudio Ferrante**¹, **Iacopo Gesmundo**², **Riccarda Granata**², **Renzhi Cai**³, **Whei Sha**³, **Andrew V. Schally**³ (¹Chieti, ²Turin, ³Miami - USA)

ALETTA 203

08.30 ORAL COMMUNICATIONS

10.00 NEW STRATEGIES IN NEUROENDOCRINOPHARMACOLOGY (cont.)

09.50 Cyanidin-3-O-glucoside ameliorates palmitate-induced inflammation and insulin resistance in murine adipocytes

Antonio Speciale, Maria Sofia Molonia, Claudia Muscarà, Cristina Occhiuto, Romina Bashllari, Antonella Saija, Francesco Cimino (Messina)

10.00 ROUND TABLE SIF-SITOX-SIMeF

11.00 STRATEGIES TO FIGHT PHARMACEUTICAL CRIME

Chairpersons: **Giorgio Cantelli Forti (Bologna), Sergio Caroli (Milan), Patrizia Hrelia (Bologna)**

Participants

Katja Carboni (Rome)

Domenico Di Giorgio (Rome)

Livia Manna (Rome)

SALA 101

09.00 ORAL COMMUNICATIONS

11.00 CARDIOVASCULAR PHARMACOLOGY

Chairpersons: **Liberato Berrino** (Naples), **Francesco Squadrito** (Messina)

- 09.00 Do P2Y12 receptor antagonism and NLRP3 inhibition exert additive cardioprotective effects against ischemia/reperfusion injury?
Fausto Chiazza, **Saveria Femminò**, **Debora Collotta**, **Elisa Zicola**, **Manuela Aragno**, **Massimo Bertinaria**, **Pasquale Pagliaro**, **Claudia Penna**, **Massimo Collino** (Turin)
- 09.10 The mGlu5 negative allosteric modulator MPEP protects against cold ischemic injury in rat livers from donor after cardiac death
Roberta Verta¹, **Clarissa Berardo**², **Veronica Siciliano**², **Laura G. Di Pasqua**², **Debora Collotta**¹, **Ferdinando Nicoletti**³, **Mariapia Vairetti**², **Massimo Collino**¹, **Andrea Ferrigno**² (¹Turin, ²Pavia, ³Rome)
- 09.20 Early and transient activation of MAPKs and matrix metalloproteinases contributes to hepatic ischemia/reperfusion injury
Laura G. Di Pasqua¹, **Giuseppina Palladini**¹, **Clarissa Berardo**¹, **Roberta Verta**², **Veronica Siciliano**¹, **Plinio Richelmi**¹, **Debora Collotta**², **Massimo Collino**², **Mariapia Vairetti**¹, **Andrea Ferrigno**¹ (¹Pavia, ²Turin)
- 09.30 Small chemical entities targeting the proprotein convertase subtilisin/kexin type 9: synergistic effect with simvastatin on low-density lipoprotein uptake by HEPG2 cells
Maria Giovanna Lupo¹, **Marco Radi**², **Nicola Ferri**¹ (¹Padua, ²Parma)
- 09.40 Proprotein convertase subtilisin/kexin type 9 (PCSK9) deficiency is associated with altered glucose metabolism, pancreatic function and insulin release
Lorenzo Da Dalt, **Carla Perego**, **Alessandra Galli**, **Alberico Luigi Catapano**, **Giuseppe Danilo Norata** (Milan)
- 09.50 Cardioprotective properties of a promising isothiocyanate: from the H₂S-releasing properties to the *in vivo* cardioprotective effects
Valentina Citi¹, **Simone Brogi**¹, **Lorenzo Flori**¹, **Era Gorica**¹, **Eugenia Piragine**¹, **Beatrice Severino**², **Angela Corvino**², **Alma Martelli**¹, **Lara Testai**¹, **Giuseppe Caliendo**², **Vincenzo Calderone**¹ (¹Pisa, ²Naples)
- 10.00 Vascular effects of Erucin, a H₂S-donor from *Eruca sativa* Mill., against oxidative and pro-inflammatory stimuli
Alma Martelli¹, **Eugenia Piragine**¹, **Valentina Citi**¹, **Lara Testai**¹, **Roberto Matteo**², **Luisa Ugolini**², **Eleonora Pagnotta**², **Luca Lazzeri**², **Lorenzo Di Cesare Mannelli**³, **Valentina Vellecco**⁴, **Vincenzo Brancialeone**⁵, **Mariarosaria Bucci**⁴, **Carla Ghelardini**³, **Vincenzo Calderone**¹ (¹Pisa, ²Bologna, ³Florence, ⁴Naples, ⁵Potenza)

SALA 101

09.00 ORAL COMMUNICATIONS

11.00 CARDIOVASCULAR PHARMACOLOGY (cont.)

- 10.10 Hydrogen sulfide is responsible for the cardioprotective effects of the isothiocyanate erucin in an experimental model of acute myocardial infarct
Lara Testai¹, Lorenzo Flori¹, Valentina Citi¹, Eugenia Piragine¹, Vincenzo Brancaleone², Era Gorica¹, Eleonora Pagnotta³, Lorenzo Di Cesare Mannelli⁴, Alma Martelli¹, Luisa Ugolini³, Luca Lazzeri³, Carla Ghelardini⁴, Vincenzo Calderone¹ (¹Pisa, ²Potenza, ³Bologna, ⁴Florence)
- 10.20 Engineered regulatory T cell adoptive therapy as a novel tool for the treatment of atherosclerosis
Fabrizia Bonacina¹, Elisa Martini², Marco Cremonesi², Annalisa Moregola¹, Stefano Garetto², Alberico Luigi Catapano¹, Fabio Pellegatta³, Marinos Kallikourdis², Giuseppe Danilo Norata¹ (¹Milan, ²Rozzano, ³Cinisello Balsamo)
- 10.30 MicroRNA-34a inhibition in rats with doxorubicin-induced cardiotoxicity
Elena Piegari, Anna Cozzolino, Loreta Pia Ciuffreda, Donato Cappetta, Antonella De Angelis, Konrad Urbanek, Maria Saturno, Liberato Berrino (Naples)
- 10.40 Mitochondrial dynamics unbalance in a model of cardiac hypertrophy: effect of fenofibrate treatment
Laura Castiglioni, Marco Gotti, Giuseppe Busca, Elena Tremoli, Paolo Gelosa, Luigi Sironi (Milan)
- 10.50 Effects of sacubitril/valsartan on diastolic function in aging rats
Donato Cappetta, Konrad Urbanek, Elena Piegari, Loreta Pia Ciuffreda, Anna Cozzolino, Agostino Micciché, Stefania Sicuranza, Francesco Rossi, Antonella De Angelis, Liberato Berrino (Naples)

POSTER SESSIONS



NEUROPHARMACOLOGY I (TOTEM 1)

Chairperson: **Fabio Tascetta** (Modena)

- P001** Neuroadaptive changes in the reward system in an animal model of voluntary ethanol consumption
Alice Ilari¹, Daniela Iezzi², Michele Petrella¹, Guido Mannaioni², Roberto Ciccocioppo¹, Alessio Masi¹ (¹Camerino, ²Florence)

- P002** 4-methylpyrazole injection into the pVTA is able to prevent ethanol self-administration behavior in rats
Paola Arrigo, Andrea Bacciu, Alessandra Tiziana Peana, Gaia Rocchitta, Pier Andrea Serra (Sassari)

- P003** Real-time biosensing of glucose, lactate and glutamate extracellular levels in Nucleus Accumbens of freely moving rats after systemic ethanol administration
Gaia Rocchitta, Paola Arrigo, Andrea Bacciu, Patrizia Monti, Alessandra Tiziana Peana, Pier Andrea Serra (Sassari)

- P004** Opioid abuse vulnerability in genetically selected Marchigian sardinian alcohol preferring rats
Federica Benvenuti, Veronica Lunerti, Hong-Wu Li, Giada Pacinelli, Nazzareno Cannella, Roberto Ciccocioppo (Camerino)

- P005** Modelling the individual variability to develop heroin dependence in outbred NIH heterogeneous stock rats
Veronica Lunerti¹, Giulia Scuppa², Stefano Tambalo², Linda Marcotulli¹, Fabio Casarola¹, Alessio Masi¹, Massimo Ubaldi¹, Carlo Lucheroni¹, Angelo Bifone², Roberto Ciccocioppo¹, Nazzareno Cannella¹ (¹Camerino, ²Rovereto)

- P006** Effects of cocaine self-administration on the glutamate synapse in the infralimbic region of the medial prefrontal cortex: the role of serotonin
Francesca Telese¹, Francesca Mottarlini¹, Lucia Caffino¹, Boyd van Reijmersdal², Michel Verheij², Judith Homberg², Fabio Fumagalli¹ (¹Milan, ²Nijmegen - The Netherlands)

NEUROPHARMACOLOGY II (TOTEM 1)

Chairperson: **Stefania Schiavone** (Foggia)

- P007** Dysregulation of BDNF signaling in the amygdala of rats lacking the serotonin transporter following long-access cocaine self-administration
Francesca Mottarlini¹, Lucia Caffino¹, Michel Verheij², Judith Homberg², Fabio Fumagalli¹ (¹Milan, ²Nijmegen - The Netherlands)

- P008** Role of nucleus accumbens subregions in incubation of methamphetamine craving after voluntary abstinence
Ludovica Maddalena Rossi¹, Ingrid Reverte¹, Davide Ragozzino¹, Aldo Badiani¹, Marco Venniro², Daniele Caprioli¹ (¹Rome, ²Baltimore - USA)

P009 Effect of social choice-induced voluntary abstinence on incubation of methamphetamine craving and AMPAR receptor expression in nucleus accumbens core
Ingrid Reverte, Ludovica Maddalena Rossi, Jacopo Modoni, Daniele Caprioli (Rome)

P010 Short- and long-term nicotine withdrawal effects on behaviour and rewarding properties of methylene-dioxymethamphetamine (MDMA) in zebrafish
Luisa Ponzoni¹, Daniela Braidà¹, Milena Moretti¹, Jose V. Torres-Pérez², Caroline Brennan², Cecilia Gotti¹, Mariaelvina Sala¹ (¹Milan, ²London - United Kingdom)

P011 Alpha-synuclein/synapsin III interplay orchestrates the locomotor response to psychostimulants such as cocaine and methylphenidate
Gaia Faustini¹, Francesca Longhena¹, Maria Grazia Spillantini², Marina Pizzi¹, Arianna Bellucci¹ (¹Brescia, ²Cambridge - United Kingdom)

P012 Effect of N-acylethanolamine acid amidase inhibition on mesolimbic dopamine and locus coeruleus noradrenergic neuronal responses to morphine
Michele Santoni¹, Mauro Congiu¹, Claudia Sagheddu¹, Alexandros Makriyannis², Michael Malamas², Marco Pistis¹ (¹Cagliari, ²Boston - USA)

NEUROPHARMACOLOGY III (TOTEM 2)

Chairperson: **Maria Scherma** (Cagliari)

P013 Remembering to forget: the role of brain carbonic anhydrases on fear memory extinction
Scheila Daiane Schmidt¹, Barbara Rani², Alessia Costa², Fabrizio Carta², Jociane de Carvalho Myskiw¹, Maria Beatrice Passani², Ivan Izquierdo¹, Claudiu Trandafir Supuran², Patrizio Blandina², **Gustavo Provensi**² (¹Porto Alegre - Brazil, ²Florence)

P014 Inside the multimodal effects of maternal separation in C57BL6J mice: early life stress and changes in neuronal functions, cognitive and motivated behaviors
Giuseppe Talani, Eleonora Saolini, Daniele Colombo, Gian Marco Calandra, **Francesca Biggio**, Giovanni Biggio, Enrico Sanna (Cagliari)

P015 Long-term impact of prenatal stress exposure on acute responsiveness in adult mice: focus on inflammation and oxidative balance
Vittoria Spero, Maria Serena Paladini, Francesco Picotti, Eleonora Buscemi, **Andrea C. Rossetti**, Raffaella Molteni (Milan)

P016 Stress regulates glucocorticoid-responsive genes expression in prefrontal cortex by altering DNA methylation: implication for lurasidone treatment
Paola Brivio¹, Giulia Sbrini¹, Letizia Tarantini¹, Chiara Favero¹, Mariusz Papp², Marco Andrea Riva¹, Valentina Bollati¹, Francesca Calabrese¹ (¹Milan, ²Cracovia - Poland)

- P017** Modulation of the norepinephrine receptor signaling affects stress coping responses in mice: implications for resilience to stress

Joaquim Azevedo Neto¹, Victor Anastacio Duarte Holanda², Salvatore Pacifico¹, Luca Finetti¹, Girolamo Calò¹, Elaine Cristina Gavioli², Chiara Ruzza¹ (¹Ferrara, ²Natal - Brazil)

- P018** Omega3 PUFA/Vitamin A enriched diet confers resilience to stress-induced cognitive and neurophysiological modifications. Role of the brain histaminergic system

Alessia Costa¹, Barbara Rani², Francesco Bonfiglio², Scheila Daiane Schmidt³, Gustavo Provensi², Patrizio Blandina², Renato Corradetti², Maria Beatrice Passani² (¹Manchester - United Kingdom, ²Florence, ³Porto Alegre - Brazil)

NEUROPHARMACOLOGY IV (TOTEM 2)

Chairperson: **Emanuela Esposito** (Messina)

- P019** Depression and anxiety as obesity-related comorbidities: possible protective effects of acylethanolamides

Marzia Friuli¹, Adele Romano¹, Maria Vittoria Micioni Di Bonaventura², Maria Elena Giusepponi², Marialuisa de Ceglia¹, Cristina Anna Gallelli¹, Justyna Barbara Koczwara¹, Emanuela Micioni Di Bonaventura², Tommaso Cassano³, Carlo Cifani², Silvana Gaetani¹ (¹Rome, ²Camerino, ³Foggia)

- P020** Effects of oleoylethanolamide on the brain circumventricular organs: novel insights on OEA anti-obesity effects

Adele Romano¹, Marzia Friuli¹, Marialuisa de Ceglia¹, Cristina Anna Gallelli¹, Justyna Barbara Koczwara¹, Maria Vittoria Micioni di Bonaventura², Carlo Cifani², Giulio Muccioli³, Silvana Gaetani¹ (¹Rome, ²Camerino, ³Brussels - Belgium)

- P021** Dysregulation of structural plasticity in an experimental model of anorexia nervosa: focus on the medial prefrontal cortex

Giorgia Bottan, Francesca Mottarlini, Francesca Telese, Benedetta Tarenzi, Fabio Fumagalli, Lucia Caffino (Milan)

- P022** Psychopharmacological options in the multidisciplinary and multidimensional treatment of eating disorders

Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)

- P023** Health consequences of bulimia nervosa

Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)

- P024** Effect on binge eating episode in female rats of a potent $\alpha 1$ antagonist analogue of spipethiane

Emanuela Micioni Di Bonaventura, Fabio Del Bello, Maria Vittoria Micioni Di Bonaventura, Gianfabio Giorgioni, Wilma Quaglia, Alessandro Piergentili, Carlo Cifani (Camerino)

NEUROPHARMACOLOGY V (TOTEM 3)

Chairperson: **Elena Marcello** (Milan)

- P025** Fluoxetine and vortioxetine reverse depressive-like phenotype and memory deficits induced by amyloid- β (1-42) oligomers in mice: a key role of Transforming Growth Factor- β 1
Sebastiano Alfio Torrisi¹, Federica Geraci¹, Margherita Grasso², Maria Rosaria Tropea¹, Giuseppe Caruso², Annamaria Fidilio¹, Nicolò Musso¹, Giulia Sanfilippo¹, Fabio Tasciedda³, Agostino Palmeri¹, Salvatore Salomone¹, Filippo Drago¹, Daniela Puzzo¹, Gian Marco Leggio¹, Filippo Caraci¹ (¹Catania, ²Troina, ³Modena)
- P026** Effect of melanocortins in a transgenic mouse model of severe Alzheimer's Disease
Eleonora Vandini, Antonietta Vilella, Eleonora Daini, Letizia Manca, Alessandra Ottani, Michele Zoli, Salvatore Guarini, Daniela Giuliani, Carlo Baraldi, Anita Calevro (Modena)
- P027** Esculetin protects against mutant huntingtin-induced toxicity in Huntington's Disease models
Letizia Pruccoli¹, Carlo Breda², Flaviano Giorgini², Gabriella Teti³, Mirella Falconi³, Andrea Tarozzi¹ (¹Rimini, ²Leicester - United Kingdom, ³Bologna)
- P028** A drug repurposing strategy for identifying novel pharmacological targets in a murine model of Down syndrome
Maria Elisa Salvalai, Valeria Bortolotto, Er Xia, Pier Luigi Canonico, Mariagrazia Grilli (Novara)
- P029** Combined administration of an A_{2A} receptor antagonist and a 5-HT1A/1B receptor agonist reverses neuroinflammation in the 6-OHDA model of Parkinson's Disease
Giulia Costa, Marcello Serra, Micaela Morelli, Annalisa Pinna (Cagliari)
- P030** A new neuroprotective role for dimethyl fumarate in experimental multiple sclerosis: inhibition of miR-142-3p to prevent inflammation-driven synaptic toxicity
Alessandra Musella¹, Francesca De Vito², Diego Freseghna¹, Antonietta Gentile¹, Silvia Bullitta¹, Francesca Romana Rizzo¹, Valentina Vanni¹, Livia Guadalupi¹, Ettore Dolcetti¹, Antonio Bruno¹, Alessandra Colamatteo³, Claudio Procaccini^{1,3}, Giuseppe Matarese³, Antonio Uccelli⁴, Marco Salvetti^{1,2}, Elisa Puma⁵, Diego Centonze^{1,2}, Georgina Mandolesi¹ (¹Rome, ²Pozzilli, ³Naples, ⁴Genoa, ⁵Milan)

NEUROPHARMACOLOGY VI (TOTEM 3)

Chairperson: **Lorenzo Di Cesare Mannelli** (Florence)

- P031** The intranasal administration of HUR ELAV-like RNA-binding proteins inhibitors is effective in reducing the symptoms of neuropathic pain in spared nerve injury mice model
Vittoria Borgonetti, Nicoletta Galeotti (Florence)
- P032** Long-term stimulation of PPAR α relieves core symptoms of autism spectrum disorder in the rat valproic acid model
Simona Scheggi¹, Giulia Braccagni¹, Maria Graziella De Montis¹, Francesca Guzzi², Marco Parenti², Carla Gambarana¹ (¹Siena, ²Milan)
- P033** Pro- and anti-inflammatory state of microglia is affected by the partial deletion of metabotropic glutamate receptor type 5 in SOD1G93A mice during disease progression
Matilde Balbi, Tiziana Bonifacino, Marco Milanese, Giambattista Bonanno (Genoa)
- P034** *In vivo* genetic ablation of metabotropic glutamate receptor type 5 slows down disease progression in the SOD1G93A mouse model of amyotrophic lateral sclerosis
Carola Torazza, Tiziana Bonifacino, Marco Milanese, Francesca Provenzano, Aldamaria Puliti, Giambattista Bonanno (Genoa)
- P035** Searching single nucleotide variations related to Neuroleptic Malignant Syndrome susceptibility
Martina Toffol, Veronica Cattaneo, Barbara Balestra, Elena Brambilla, Valeria M. Petrolini, Fiorenzo A. Peverali, Ornella Pastoris (Pavia)
- P329** Gut and brain speech: gain in bifidobacteria alters the hippocampal GABAergic plasticity in healthy male rats
Francesca Biggio (Cagliari)

PHARMACOVIGILANCE I (TOTEM 4)

Chairperson: **Emilio Russo** (Catanzaro)

- P036** Evaluation of the safety profile of rotavirus vaccines: a pharmacovigilance analysis on US and European data
Giulia Bonaldo¹, Roberta Nosedà², Alessandro Ceschi³, Alberto Vaccheri¹, Domenico Motola¹ (¹Bologna, ²Lugano - Switzerland, ³Zurich - Switzerland)
- P037** A pharmacovigilance study on the safety profile of HPV vaccines in the male population: data from US Vaccine Adverse Event Reporting System (VAERS)
Clara La Bruna, Giulia Bonaldo, Alberto Vaccheri, Domenico Motola (Bologna)
- P038** Shift from chronic migraine to episodic migraine status in a long-term phase 3 study of galcanezumab
Holland Detke¹, Kathleen A. Day¹, Sarah Lipsius², Sheena K. Aurora¹, Nada A. Hindiyyeh³, Hans-Christoph Diener⁴, Amalia Antenor⁵ (¹Indianapolis - USA, ²Raleigh - USA, ³Stanford - USA, ⁴Essen - Germany, ⁵Rome)

P039 Evaluation of cardiovascular risks in adult patients with episodic or chronic migraine treated with galcanezumab: data from three phase 3, randomized, double-blind, placebo-controlled studies
Tina M. Oakes¹, Richard Kovacs¹, Noah Rosen², Erin Doty¹, Phebe Kemmer¹, Sheena K. Aurora¹, Angelo Camporeale¹, Amalia Antenori³ (¹Indianapolis - USA, ²Hempstead - USA, ³Rome)

P040 Safety and cost of drugs prescribed according to Law 648/96
Laura Longo, Lucia Gozzo, Daniela Cristina Vitale, Giuseppe Benfatto, Filippo Drago (Catania)

P041 Adverse events detected in emergency room of an University Hospital
Costanza Furlanetto¹, Agnese Princi¹, Irene D'Este¹, Sara Dereani², Paola Rossi², Irene Fregonese¹, Catia Tavano¹, Ranieri Giuseppe Cravero¹, Germana Modesti¹ (¹Udine, ²Trieste)

PHARMACOVIGILANCE II (TOTEM 4)

Chairperson: **Concetta Rafaniello** (Naples)

P042 Safety and tolerability of antipsychotic drugs in paediatric patients: data from an active pharmacovigilance study
Giuseppe Cicala¹, Maria Antonietta Barbieri¹, Vincenza Santoro¹, Eva Germanò¹, Carmela Tata², Valentina Colucci³, Francesca Vanadia⁴, Flavia Drago⁴, Carmelita Russo⁵, Paola Maria Cutroneo¹, Edoardo Spina¹ (¹Messina, ²Siracusa, ³Enna, ⁴Palermo, ⁵Catania)

P043 Adverse drug reactions during biologic therapy in dermatological disease: real life data from the pharmacovigilance project in Calabria and Sicilia regions
Giovambattista De Sarro¹, Valeria Papaiani², Maria Antonietta Barbieri², Luigi Bennardo¹, Stefano Dastoli¹, Maria Diana Naturale¹, Eugenio Donato di Paola¹, Serafinella Patrizia Cannavo², Paola Maria Cutroneo², Edoardo Spina², Emilio Russo¹ (¹Catanzaro, ²Messina)

P044 Adverse drug reactions during biologic therapy in inflammatory bowel disease: real life data from the pharmacovigilance project in Calabria and Sicilia regions
Maria Diana Naturale¹, Roberta Roberti¹, Caterina Palleria¹, Maria Antonietta Barbieri², Tiziana Larussa¹, Rocco Spagnuolo¹, Francesco Luzzo¹, Patrizia Doldo¹, Ada Vero¹, Antonia Manti¹, Valentina Pisana², Walter Fries², Gianluca Trifirò², Edoardo Spina², Emilio Russo¹, Giovambattista De Sarro¹ (¹Catanzaro, ²Messina)

P045 Monitoring adverse event by ipoglycemic drugs in Calabria region
Caterina Palleria, Caterina De Sarro, Ada Vero, Roberta Roberti, Giovanna Mangano, Eugenio Donato di Paola, Agostino Gnasso, Concetta Irace, Emilio Russo (Catanzaro)

P046 Safety profile of biologics in rheumatologic diseases in a real world setting in Southern Italy: a prospective pharmacovigilance study
Maria Antonietta Barbieri¹, Caterina Palleria², Antonia Manti², Giuseppe Cicala¹, Elisabetta Gerratana¹, Fabiola Atzeni¹, Emilio Russo², Giovambattista De Sarro², Edoardo Spina¹ (¹Messina, ²Catanzaro)

P047 Pharmacovigilance of sleep aids, an Italian experience
Paolo Pellegrino, Elena Giacomoni, Andrea Chiarenza, Roberto Monteverdi, Daniela Facchinello, Maria Chiara Ubaldi (Milan)

PHARMACOVIGILANCE III (TOTEM 5)

Chairperson: **Manuela Casula** (Milan)

P048 25-hydroxy vitamin D detection in subjects with headache using different methodological approaches
Luca Gallelli, Andzelika Michniewicz, Erika Cione, Stefania Zampogna, Francesco Peltrone, Rosario Iannacchero, Giovambattista De Sarro (Catanzaro)

P049 Pharmacovigilance in child neuropsychiatry: multidisciplinary project at the IRCCS Burlo Garofalo
Marta Paulina Trojniak, Maria Sole Giurin, Giulia Fornasier, Caterina Zanus, Anna Arbo, Alessandra Maestro, Davide Zanon, Marco Carrozzi (Trieste)

P050 Evaluation of Adverse Drug Reaction Reporting in the Sicilian Regional Pharmacovigilance Center over a 3-year period
Paola Maria Cutroneo, Nicola Pellegrino, Maria Antonietta Barbieri, Giuseppe Cicala, Giulia Maria Di Natale, Pierangela Irrera, Emanuele Leotta, Edoardo Spina (Messina)

P051 A six-years active pharmacovigilance study of adverse drug reactions causing children admission to the Emergency Department in Southern Italy
Chiara Nasso¹, Anna Mecchio¹, Michelangelo Rottura¹, Elisa Bongiorno¹, Teresa Arrigo¹, Vincenzo Arcoraci¹, Francesca Menniti Ippolito², Domenica Altavilla¹ (¹Messina, ²Rome)

P052 Interaction between paracetamol and lamotrigine: new insights from the FDA Adverse Event Reporting System (FAERS) database
Giulia Mosini¹, Carla Carnovale¹, Michele Gringeri¹, Vera Battini¹, Faizan Mazhar¹, Marco Pozzi², Emilio Clementi¹, Sonia Radice¹ (¹Milan, ²Lecco)

P053 Bullous pemphigoid induced by dipeptidyl peptidase-4 (DPP-4) inhibitors: a Pharmacovigilance-Pharmacodynamic/Pharmacokinetic assessment through an analysis of the VigiBase®
Giulia Mosini¹, Carla Carnovale¹, Faizan Mazhar¹, Elena Arzenton², Ugo Moretti², Marco Pozzi³, Olivia Leoni¹, Marco Scatigna¹, Emilio Clementi¹, Sonia Radice¹ (¹Milan, ²Verona, ³Lecco)

PHARMACOVIGILANCE IV (TOTEM 5)

Chairperson: **Valeria Conti** (Salerno)

- P054** Analysis of drug-drug interactions based on administrative Emilia Romagna Healthcare databases
Sofia Burato¹, Luca Leonardi², Emanuel Raschi¹, Chiara Ajolfi³, Manuela Baraghini⁴, Antonella Chiarello⁵, Valentina Delmonte⁶, Lucio Di Castri⁷, Monia Donati¹, Antonella Fadda⁵, Daniela Fedele⁸, Alessandra Ferretti⁹, Laura Gabrielli⁹, Silvia Gobbi⁴, Sereno Lughì⁴, Martina Mazzari⁷, Fabio Pieraccini⁴, Alessandro Renzetti³, Elsa Russi⁶, Chiara Scanelli⁸, Barbara Zanetti¹, Elisabetta Poluzzi¹ (¹Bologna, ²Pisa, ³Modena, ⁴Cesena, ⁵Imola, ⁶Parma, ⁷Piacenza, ⁸Ferrara, ⁹Reggio Emilia)
- P055** Efficacy of tumor necrosis factor-alpha therapy in the management of paediatric perianal Crohn's disease: a systematic review
Vera Battini, Faizan Mazhar, Anna Maffioli, Gloria Zaffaroni, Giulia Mosini, Piergiorgio Danelli, Emilio Clementi, Sonia Radice, Carla Carnovale (Milan)
- P056** Correlation between dizziness and levothyroxine inefficacy: new insights from the FDA Adverse Event Reporting System (FAERS) database
Vera Battini, Faizan Mazhar, Giulia Mosini, Andrea Vicenzi, Emilio Clementi, Sonia Radice, Carla Carnovale (Milan)
- P057** Program of "Oncovigilance" evaluating the incidence and prevalence of ADR linked to the use of fluoropyrimidines-based chemotherapy
Francesco Iannello, Valentina Manzo, Clementina Savastano, Martina Torsiello, Emanuela De Bellis, Francesca Colucci, Teresa Iannaccone, Francesco Sabbatino, Amelia Filippelli, Valeria Conti (Salerno)
- P058** Janus kinase inhibitors and cardiovascular events in rheumatoid arthritis: a systematic review and meta-analysis of randomized controlled trials
Emanuel Raschi¹, Nicolò Bendinelli¹, Ippazio Cosimo Antonazzo¹, Jacopo Ciaffai¹, Olga Addimanda¹, Francesco Salvo², Richez Christophe², Elisabetta Poluzzi¹, Fabrizio De Ponti¹ (¹Bologna, ²Bordeaux - France)
- P059** Social adverse drug reactions: a pharmacovigilance-pharmacodynamic assessment through the FDA adverse event reporting system
Michele Fusaroli, Emanuel Raschi, Ippazio Cosimo Antonazzo, Fabrizio De Ponti, Elisabetta Poluzzi (Bologna)

BASIC AND CLINICAL RESEARCH I (TOTEM 6)

Chairperson: **Anna Maria Pugliese** (Florence)

- P060** Measurement of Δ^9 -tetrahydrocannabinol and cannabidiol of medical cannabis in plasma samples and decoctions for therapeutic drug monitoring
Carmen Fucile, Sebastiano Barco, Luca Manfredini, Elisa De Grandis, Marcella Gherzi, Antonietta Martelli, Gino Tripodi, Giuliana Cangemi, Francesca Mattioli (Genoa)
- P061** Determination of meropenem plasma concentrations in cystic fibrosis patients with pulmonary exacerbation
Francesca Mattioli (Genoa)
- P062** The role of hypoxia in a cellular model of glioblastoma
Giulia Sita¹, Fabiana Morroni¹, Agnese Graziosi¹, Andrea Tarozzi², Patrizia Hrelia¹ (¹Bologna, ²Rimini)
- P063** Estrogenic regulation of endothelial glycolytic pathway
Carlotta Boscaro, Annalisa Trenti, Chiara Scapin, Lucia Trevisi, Andrea Cignarella, Chiara Bolego (Padua)
- P064** Role of innate immunity receptors in the process of crystal phagocytosis
Chiara Baggio, Anna Scanu, Francesca Mastrotto, Roberta Ramonda, Paolo Sfriso, Andrea Cignarella, Francesca Oliviero (Padua)
- P065** Investigation into Blue LED light effects on cell metabolism, proliferation rate and ionic currents in cultured human keloid fibroblasts: a possible involvement of adenosine A_{2A} receptors
Giada Magni¹, Federica Cherchi², Elisabetta Coppi², Marco Fraccalvieri³, Felicita Pedata², Roberto Pini¹, Anna Maria Pugliese², Francesco S. Pavone¹, Francesca Rossi¹ (¹Sesto Fiorentino, ²Florence, ³Turin)

BASIC AND CLINICAL RESEARCH II (TOTEM 6)

Chairperson: **Silvana Gaetani** (Rome)

- P066** CD73 expression and activity in serum of melanoma patients and healthy donors
Roberta Turiello¹, Mariaelena Capone², Gabriele Madonna², Ester Simeone², Aldo Pinto¹, Paolo Antonio Ascierto², Silvana Morello¹ (¹Salerno, ²Naples)
- P067** Selective placental growth factor (PlGF) inhibition: a novel pharmacological approach in diabetic retinopathy
Francesca Lazzara, Annamaria Fidilio, Chiara B. Maria Platania, Federica Conti, Salvatore Salomone, Filippo Drago, Claudio Bucolo (Catania)
- P068** Long-lasting antinociceptive effects of Ammonium Glycyrrhizinate in mice
Paola Minosi¹, Federica Raucci², Amalia Di Giannuario¹, Maria Giovanna Chini³, Simona De Vita³, Giuseppe Bifulco³, Francesco Maione², Nicola Mascolo², Stefano Pieretti¹ (¹Rome, ²Naples, ³Salerno)

- P069** The arylpiperazinylalkyl pyridazinone ET1 as a potent antinociceptive agent after oral administration in mice
Francesca Marzoli¹, Francesco Maione², Mariantonella Colucci¹, Paola Minosi¹, Amalia Di Giannuario¹, Federica Raucci², Nicola Mascolo², Maria Paola Giovannoni³, Stefano Pieretti¹ (¹Rome, ²Naples, ³Sesto Fiorentino)
- P070** Stemness marker aldehyde dehydrogenase 1A1 (ALDH1A1) promotes tumor angiogenesis in breast cancer cells
Valerio Ciccone, Sandra Donnini, Lucia Morbidelli, Marina Ziche (Siena)
- P071** Evidence that genes involved in serine/threonine kinase activity are associated with both bipolar disorder and high BMI
Claudia Pisanu¹, Michael J. Williams², Diana Maria Ciuculete², Gaia Olivo², Maria Del Zompo¹, Alessio Squassina¹, Helgi B. Schiöth² (¹Cagliari, ²Uppsala - Sweden)

BASIC AND CLINICAL RESEARCH III (TOTEM 7)

Chairperson: **Nicola Simola** (Cagliari)

- P072** Ultrasonic communication deficits in a mouse model of neurodevelopmental disorders and effect of maternal enrichment
Marika Premoli, Sara Anna Bonini, Andrea Mastinu, Giuseppina Maccarinelli, Giulia Paiardi, Francesca Aria, Maurizio Memo (Brescia)
- P073** Telomeres length in genetically diagnosed familial hypercholesterolemia
Andrea Baragetti, Fabio Pellegatta, Stefania Cicolari, Veronica Zampoleri, Liliana Grigore, Angela Pirillo, Giuseppe Danilo Norata, Alberico Luigi Catapano (Milan)
- P075** Pharmacological studies for treatment of space-related disorders
Shirley Genah¹, Valerio Ciccone¹, Lucia Morbidelli¹, Francesca Cialdai², Monica Monici³ (¹Siena, ²Florence)
- P076** An ER-to-mitochondria Ca^{2+} -shuttling unravelled by absinthin, a bitter taste receptor hTAS2R46 agonist
Maria Talmon, Silvia Rossi, Dmitry Lim, Federica Pollastro, Patrizia Marotta, Armando A. Genazzani, Luigia G. Fresu (Novara)
- P077** Mesoglycan induces keratinocyte activation by triggering syndecan-4 pathway and the formation of the annexin A1/S100A11 complex
Valentina Bizzarro¹, Raffaella Belvedere¹, Emanuela Pessolano¹, Luca Parente¹, Mauro Perretti², Antonello Petrella¹ (¹Salerno, ²London - United Kingdom)

BASIC AND CLINICAL RESEARCH IV (TOTEM 7)

Chairperson: **Fabiana Morroni** (Bologna)

- P078** Chloride intracellular channel 1 inhibition dictates antitumor effects of old and new biguanide compounds in glioblastoma stem cells
Federica Barbieri¹, Alessia Bosio¹, Ivan Verduci², Maria Grazia Cattaneo², Laura M. Vicentini², Michele Mazzanti², Tullio Florio¹ (¹Genoa, ²Milan)
- P079** Effects of hexarelin on the modulation of apoptosis pathway induced by hydrogen peroxide
Ramona Meanti, Laura Molteni, Laura Rizzi, Elena Bresciani, Vittorio Locatelli, Antonio Torsello (Monza)
- P080** Glucocorticoid-induced leucine zipper is required for hematopoietic stem cell function
Zenobio Viana de Barros, Sara Flamini, Stefano Bruscoli, Graziella Migliorati, Oxana Bereshchenko, Carlo Riccardi (Perugia)
- P081** Mitophagic/autophagic inhibitors as new strategy to overcome cisplatin resistance in cancer
Veronica Cocetta, Caterina Vianello, Eugenio Ragazzi, Luca Scorrano, Marta Giacomello, Monica Montopoli (Padua)
- P082** The role of FKBP5 polymorphisms in resistance to developmental change of executive functions in children with persistent asthma
Chiara Colliva, Barbara Maria Bergamini, Cristina Benatti, Johanna Maria Catharina Blom (Reggio Emilia)
- P083** Cholesterol efflux capacity of cerebrospinal fluid is impaired in Alzheimer's Disease
Cinzia Marchi¹, Maria Pia Adorni¹, Paolo Caffarra¹, Nicoletta Ronda¹, Marco Spallazzi¹, Federica Barocco¹, Daniela Galimberti², Franco Bernini¹, Francesca Zimetti¹ (¹Parma, ²Milan)

PHARMACOGNOSY AND NATURAL DRUGS I (TOTEM 8)

Chairperson: **Francesco Maione** (Naples)

- P084** The importance of a careful analysis of interactions between herbal products and medicines
Salvatore Bianco, Giulia Matteucci, Alfredo Nunziata (Pomezia)
- P085** Long-lasting anti-inflammatory effects of ammonium glycyrrhizinate: an integrated study of pharmacology and computational analysis
Federica Raucci¹, Paola Minosi², Amalia Di Giannuario², Maria Giovanna Chini³, Simona De Vita³, Giuseppe Bifulco³, Francesco Maione¹, Stefano Pieretti², Nicola Mascolo¹ (¹Naples, ²Rome, ³Salerno)

- P086** Herb and spice mediated interactions in oncologic patients treated with chemotherapy
Francesca Turco, Andrea Elio Sprio, Ilenia Bertaggia, Tiziana Armando, Silvana Storto, Sarah Allegra, Silvia De Francia, Libero Ciuffreda, Maria Valentina Mussa (Turin)
- P087** Initial biological validation of herbal drugs from Vietnamese traditional medicine
Sabrina Adorisio¹, Isabella Muscarì², Carlo Riccardi², Domenico Delfino² (¹Foligno, ²Perugia)
- P088** Protective role of beta-caryophyllene oxide against hydrogen peroxide-induced oxidative stress in neuronal-differentiated SH-SY5Y cells
Venera Cardile, Rosanna Avola, Adriana C.E. Graziano, Alessandra Russo (Catania)
- P089** Phytosomal preparation of *Centella asiatica* L. improves the cognitive performance by modulating neuroplastic mechanisms
Paola Brivio, Giulia Sbrini, Enrico Sangiovanni, Giorgio Racagni, Stefano Piazza, Mario Dell'Agli, Francesca Calabrese (Milan)

PHARMACOGNOSY AND NATURAL DRUGS II (TOTEM 8)

Chairperson: **Alessandra Russo** (Catania)

- P090** Caryophyllane sesquiterpenes reverse sorafenib-chemoresistance through Pgp and STAT3 pathways in liver cancer cells
Silvia Di Giacomo, Margherita Eufemi, Elisabetta Rubini, Marco Gulli, Gabriela Mazzanti, Antonella Di Sotto (Rome)
- P091** Protective effects of cyanidin-3-O-glucoside against palmitate-induced insulin resistance in human SGBS hypertrophic adipocytes
Maria Sofia Molonia¹, Francisc Villarroya², Tania Quesada-López², Claudia Muscarà¹, Romina Bashllari¹, Antonio Speciale¹, Antonina Saija¹, Francesco Cimino¹ (¹Messina, ²Barcelona - Spain)
- P092** Effect of cannabidiol, a non-euphoric phytocannabinoid, on murine intestinal inflammation and biopsies of ulcerative colitis paediatric patients
Tommaso Venneri¹, Ester Pagano¹, Barbara Romano¹, Fabio Arturo Iannotti², Olga Alessandra Parisi¹, Maria D'Armiento¹, Lorena Coretti¹, Marianna Lucafo³, Gabriele Stocco³, Francesca Lembo¹, Raffaele Capasso¹, Vincenzo Di Marzo², Angelo Antonio Izzo¹, Francesca Borrelli¹ (¹Naples, ²Pozzuoli, ³Trieste)
- P093** Effect of repeated treatment with olive-based preparations on colitis model in rats
Carmen Parisio, Laura Micheli, Elena Lucarini, Alessandra Toti, Nadia Mulinacci, Daniele Bani, Lorenzo Di Cesare Mannelli, Carla Ghelardini (Florence)

P094 Anti-inflammatory effect of a flavonoid-rich extract of orange juice in an *in vivo* model of *Vibrio anguillarum*-induced enteritis in zebrafish
Caterina Russo, Giuseppe Montalbano, Alessandro Maugeri, Laura Musumeci, Santa Cirmi, Giovanni Enrico Lombardo, Antonino Germanà, Michele Navarra (Messina)

P095 Effect of a flavonoid-rich extract of orange juice on weight management in an *in vivo* model of obese zebrafish
Alessandro Maugeri, Giuseppe Montalbano, Laura Musumeci, Santa Cirmi, Caterina Russo, Giovanni Enrico Lombardo, Antonino Germanà, Michele Navarra (Messina)

PHARMACOLOGY OF CARDIOVASCULAR AND KIDNEY FUNCTION I (TOTEM 9)

Chairperson: **Raffaele Coppini** (Florence)

P096 Melanocortin receptor 5 (MC5R) cardio-protection in high glucose-induced H9c2 hypertrophy
Maria Consiglia Trotta¹, Rosa Maisto¹, Nicola Alessio¹, Anca Hermenenan², Michele D'Amico¹ (¹Naples, ²Arad - Romania)

P097 The citrus flavonoid naringenin slows down myocardial ageing by increasing sirtuin 1 enzyme expression in mice
Eugenia Piragine¹, Lara Testai¹, Alma Martelli¹, Valentina Citi¹, Lorenzo Flori¹, Ilaria Piano¹, Maria Claudia Gargini¹, Andrea Pirone¹, Vincenzo Miragliotta¹, Lorenzo Di Cesare Mannelli², Carla Ghelardini², Maria Cristina Breschi¹, Vincenzo Calderone¹ (¹Pisa, ²Florence)

P098 Sex differences in rat platelet aggregation induced by different stimuli
Rossella Bilancia¹, Elisabetta Caiazza¹, Simona Pace², Fabiana Troisi², Antonietta Rossi¹, Carla Cicala¹, Oliver Werz², Armando Ialenti¹ (¹Naples, ²Jena - Germany)

P099 The novel H₂S-donor ISOTHIA25 promotes cardioprotective effect against myocardial ischemia/reperfusion injury in rat hearts and reduction of oxidative stress in H9c2 cells
Era Gorica¹, Lorenzo Flori¹, Valentina Citi¹, Eugenia Piragine¹, Beatrice Severino², Angela Corvino², Alma Martelli¹, Lara Testai¹, Giuseppe Caliendo², Vincenzo Calderone¹ (¹Pisa, ²Naples)

P100 The anti-atherogenic role of sphingosine 1-phosphate and sphingosine 1-phosphate receptor 3 in the reverse cholesterol transport
Enrica Scalerà¹, Bianca Papotti¹, Ilaria Zanotti¹, Daniela Greco¹, Simone Battista¹, Franco Bernini¹, Jerzy-Roch Nofer², Manuela Simoni³, Francesco Potì¹ (¹Parma, ²Münster - Germany, ³Modena)

P101 Resolvin D1 attenuates the organ injury associated with hemorrhagic shock
Fausto Chiazza¹, Regina Sordi², Debora Collotta¹, Giuseppe Migliairetti¹, Romain A. Colas², Paul Vulliamy², Karim Brohi², Jesmond Dalli², Massimo Collino¹, Christoph Thiemermann² (¹Turin, ²London - United Kingdom)

PHARMACOLOGY OF CARDIOVASCULAR AND KIDNEY FUNCTION II

Chairperson: **Raffaella Sorrentino** (Naples)

(TOTEM 9)

- P102** Human left atrial dilation is associated to increased expression of type-1 Hyperpolarization Cyclic-Nucleotide gated channel and Mink-related peptide 1 subunit: implications for atrial electrophysiological remodeling
Manuela Gencarelli¹, Valentina Balducci¹, Benedetta Fabrizi¹, Valentina Spinelli¹, Matteo Cameli², Sergio Mondillo², Alessandro Mugelli¹, Laura Raimondi¹, Elisabetta Cerbai¹, Laura Sartiani¹ (¹Florence, ²Siena)
- P103** Stability of the thromboxane metabolite 11-Dehydro-TxB2 and of creatinine in samples stored over 5 years
Giovanna Petrucci, Francesca Pagliaccia, Bianca Rocca (Rome)
- P104** MicroRNA-34a silencing regulates myocardial fibrosis in a rat model of doxorubicin cardiotoxicity
Anna Cozzolino, Elena Piegari, Loreta Pia Ciuffreda, Donato Cappetta, Antonella De Angelis, Konrad Urbanek, Liberato Berrino (Naples)
- P105** β -3 adrenergic receptor activation causes hydrogen sulfide production via cystathionine γ -lyase in human urothelium
Domenico Vanacore, Emma Mitidieri, Ferdinando Fusco, Vincenzo Mirone, Roberta d'Emmanuele di Villa Bianca, Giuseppe Cirino, Raffaella Sorrentino (Naples)
- P106** Effects of mexiletine on the sodium channel overlap syndrome mutation SCN5A-1795insD
Chiara Palandri¹, Giovanna Nasilli², Raffaele Coppini¹, Laura Sartiani¹, Vincent Portero², Elisabetta Cerbai¹, Carol Ann Remme², Simona Casini¹ (¹Florence, ²Amsterdam - NL)
- P107** Off-label uses in pediatrics: focus on drugs of the cardiovascular system
S. Cammarata, G. Capone, N. Lombardi, L. Pani, A. Mugelli (Rome)

PHARMACOLOGY OF METABOLISM AND ENDOCRINE SYSTEM I

Chairperson: **Rosaria Meli** (Naples)

(TOTEM 10)

- P108** Dopamine receptor signalling in pancreatic β -cells
Marco Carli, Stefano Aringhieri, Shivakumar Kolachalam, Francesca Vaglini, Michela Novelli, Marco Scarselli (Pisa)
- P109** Pilot study on comparative profiling of biofluids (plasma, urine and saliva) from metabolically healthy and metabolically unhealthy obese subjects
Debora Collotta¹, Chiara Cordero¹, Jared Q. Gerlach², Erica Liberto¹, Fausto Chiazza¹, Marta Cialie Rosso¹, Chiara Mele³, Stefania Mai³, Stephen E. Reichenbach⁴, Qingping Tao⁴, Marie Le Berre², Raffaella Mastrocola⁵, Manuela Aragno⁵, Lokesh Joshi², Carlo Bicchi¹, Paolo Marzullo³, Gianluca Aimaretti⁶, Massimo Collino¹ (¹Turin, ²Galway - Ireland, ³Piancavallo, ⁴Lincoln - USA, ⁵Turin, ⁶Novara)

- P110** Eating disorders in athletes: from risk managing to therapy
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)
- P111** Mediterranean diet: the right way to longevity?
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)
- P112** Modulation of the cross-talk between NLRP3 inflammasome signalling and endothelial transcription factor EB (TFEB): a new strategy to halt inflammation and improve poor wound healing in diabetes
Natasha Irrera¹, Federica Mannino¹, Alessandra Bitto¹, Michele Colonna¹, Anna Valeria Vergoni², Domenica Altavilla¹, Salvatore Guarini², Francesco Squadrito¹ (¹Messina, ²Modena)
- P113** Bilastine preserves the glomerular junctional integrity in a murine model of diabetic nephropathy
Roberta Verta¹, Cristina Grange¹, Maura Gurrieri¹, Sara Borgia¹, Patrizia Nardini², Monica Argenziano¹, Corrado Ghè¹, Roberta Cavalli¹, Elisa Benetti¹, Gianluca Miglio¹, Benedetta Bussolati¹, Alessandro Pini², Arianna Carolina Rosa¹ (¹Turin, ²Florence)

PHARMACOLOGY OF METABOLISM AND ENDOCRINE SYSTEM II (TOTEM 10)

Chairperson: **Luca Antonioli** (Pisa)

- P114** Oxytocin-increase in bone, soleus muscle and hypothalamic paraventricular nuclei regulates the response to cold stress in mice exerting phenotype-dependent protective effects towards slow-twitch muscle
Claudia Camerino¹, Elena Conte¹, Adele Romano², Michela De Bellis¹, Marialuisa de Ceglia², Maria Rosaria Carratù¹, Silvana Gaetani², Domenico Tricarico¹ (¹Bari, ²Rome)
- P115** miRNA-218 Targets Lipin-1 and Glucose Transporter Type 4 genes in 3T3-L1 Cells Treated with Lopinavir/Ritonavir
Elena Bresciani¹, Cecilia Saletti¹, Nicola Squillace¹, Laura Rizzi¹, Laura Molteni¹, Ramona Meanti¹, Robert J. Omeljaniuk², Giuseppe Biagini³, Andrea Gori⁴, Vittorio Locatelli¹, Antonio Torsello¹ (¹Monza, ²Thunder Bay - Canada, ³Modena, ⁴Milan)
- P116** Diseases and health risks associated with obesity
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)
- P117** Gender dysphoria, eating disorders and body image
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)
- P118** Nutrition and nutrigenomics
Anna Capasso, Mario Felice Tecce (Salerno)

- P119** Gliadin and adipose inflammation, anti-inflammatory and protective effects of diet-derived flavonoids
Federica Mannino, Natasha Irrera, Giovanni Pallio, Domenica Altavilla, Francesco Squadrito, Alessandra Bitto (Messina)

NUTRACEUTICALS AND NATURAL PRODUCTS I (TOTEM 11)

Chairperson: **Lara Testai** (Pisa)

- P120** Phytochemical composition and biological activities of two *Cannabis sativa* L. biotypes extracts
Claudia Muscarà¹, Antonella Smeriglio¹, Domenico Trombetta¹, Giuseppina Mandalari¹, Erminia La Camera¹, Gianpaolo Grassi², Clara Circosta¹ (¹Messina, ²Rovigo)
- P121** Effects of Oleuropein on colon cancer progression *in vitro*. A preliminary report
Carla Flandina¹, Marilena Crescimanno¹, Maria Vittoria Sepporta², Gaetano Leto¹ (¹Palermo, ²Lausanne - Switzerland)
- P122** Whey proteins reduce appetite, stimulate anorexigenic gastrointestinal peptides and improve glucometabolic homeostasis in young obese women
Antonello E. Rigamonti¹, Roberto Leoncini³, Claudia Casnici¹, Ornella Marelli¹, Alessandra De Col², Sofia Tamini², Elisa Lucchetti², Sabrina Cicolini², Laura Abbruzzese², Silvano G. Cella¹, Alessandro Sartorio² (¹Milan, ²Verbania, ³Siena)
- P123** Acute administration of capsaicin increases resting energy expenditure in young obese subjects without affecting energy intake, appetite and circulating levels of orexigenic/anorexigenic peptides
Antonello E. Rigamonti¹, Claudia Casnici¹, Ornella Marelli¹, Alessandra De Col², Sofia Tamini², Elisa Lucchetti², Gabriella Tringali², Roberta De Micheli², Laura Abbruzzese², Mauro Bortolotti³, Silvano G. Cella¹, Alessandro Sartorio² (¹Milan, ²Verbania, ³Bologna)
- P124** Herbal dietary supplements used in weight control and dyslipidemia: preliminary study of pharmacies data sales
Olta Allkanjari, Silvia Di Giacomo, Gabriela Mazzanti, Francesca Menniti-Ippolito, Tito Piccioni, Annabella Vitalone (Rome)
- P125** Records of exposures to plant and plant-derived products collected by the Poison Control Center of Policlinico Umberto I - Sapienza University of Rome
Annabella Vitalone, Matilde Pasquarelli, Antonella Di Sotto, M. Caterina Grassi, Gabriela Mazzanti (Rome)

NUTRACEUTICALS AND NATURAL PRODUCTS II (TOTEM 11)

Chairperson: **Sheila Leone** (Chieti)

- P126** Formulation and evaluation of controlled release gastroretentive in situ gel-forming delivery systems of *Punica granatum* L. extract for the therapeutic management of gastric diseases
Andrea Magnavacca, **Enrico Sangiovanni**, **Giulia Martinelli**, **Marco Fumagalli**, **Mario Dell'Agli** (Milan)

- P127** Chronic low back pain and SPA therapy
Maria Costantino¹, **Valeria Conti**¹, **Antonella Guida**², **Walter Filippelli**², **Francesco Marongiu**², **Mario Farroni**¹, **Amelia Filippelli**¹ (¹Salerno, ²Naples)

- P128** Purple corn extract as adjuvant therapy for the prevention and treatment of trigeminal pain: role of microglia and of the gut microbiota
Giulia Magni¹, **Alessandra Marinelli**¹, **Daniele Riccio**², **Davide Lecca**¹, **Christian Milani**³, **Marco Ventura**³, **Mariapia Abbraccio**¹, **Chiara Tonelli**¹, **Katia Petroni**¹, **Stefania Ceruti**¹ (¹Milan, ²Aalborg - Denmark, ³Parma)

- P129** Effect of enrichment with different *Crocus spp* stigmas on antioxidant properties of wheat flour pasta
Cristina Occhiuto¹, **Maria Sofia Molonia**¹, **Romina Bashllari**¹, **Luana Pulvirenti**², **Francesco Cimino**¹, **Antonio Speciale**¹, **Antonina Saija**¹, **Giuseppe Ruberto**², **Laura Siracusa**², **Mariateresa Cristani**¹ (¹Messina, ²Catania)

- P130** Bioavailability of formulations containing *Curcuma longa* L. and/or *Centella asiatica* L. in rats
Marco Fumagalli, **Paola Brivio**, **Flavio Giavarini**, **Enrico Sangiovanni**, **Giulia Sbrini**, **Stefano Piazza**, **Francesca Calabrese**, **Giorgio Racagni**, **Donatella Caruso**, **Mario Dell'Agli** (Milan)

- P131** Leaf extracts and ellagitannins from chestnut (*Castanea sativa* Mill.) inhibit IL-8 release in *H. pylori*-infected gastric epithelial cells
Stefano Piazza¹, **Enrico Sangiovanni**¹, **Urska Vrhovsek**², **Marco Fumagalli**¹, **Saba Khalilpour**¹, **Domenico Masuero**², **Luca Colombo**³, **Fulvio Mattivi**², **Emma De Fabiani**¹, **Mario Dell'Agli**¹, **Giulia Martinelli**¹, **Andrea Magnavacca**¹ (¹Milan, ²San Michele all'Adige, ³Varese)

NUTRACEUTICALS AND NATURAL PRODUCTS III (TOTEM 12)

Chairperson: **Francesca Borrelli** (Naples)

- P132** Innovative approach to recurrent vaginitis
Rosa Conte¹, **Ettore Cicinelli**², **Viviana Giannuzzi**¹, **Annalisa Landi**¹, **Flavia Laforgia**³, **Maria De Angelis**¹, **Bianca Tempesta**¹, **Mariagrazia Felisi**¹, **Rosa Padula**¹, **Maria Grazia Roselli**³, **Vanessa Garofalo**³, **Bonifazi Fedele**¹ (¹Valenzano, ²Bari, ³Canosa di Puglia)

- P133** The role of mitochondrial SIRT3 in neuropathic pain
Sara Ilari¹, **Luigino Antonio Giancotti**², **Filomena Lauro**¹, **Valentina Malafoglia**¹, **Micaela Gliozzi**¹, **Marco Tafani**³, **Massimo Fini**³, **Vincenzo Mollace**¹, **Daniela Salvemini**², **Carolina Muscoli**¹ (¹Catanzaro, ²Saint Louis - USA, ³Rome)

P134 Nature-inspired hybrids targeting Nrf2-pathway exert anti-inflammatory effect on human monocytic cell line
Francesca Fagiani¹, Michele Catanzaro¹, Irene Romanoni¹, Marco Racchi¹, Michela Rosini², Stefano Govoni¹, Cristina Lanni¹ (¹Pavia, ²Bologna)

P135 Evaluation of the ergogenic effect of an amino acid-based dietary supplement in a murine model of physiological exercise
Francesca Sanarica¹, Paola Mantuano¹, Brigida Boccanegra¹, Michela De Bellis¹, Antonietta Mele¹, Ornella Cappellari², Elena Conte¹, Giulia Maria Camerino¹, Gianluca Bianchini³, Andrea Aramini¹, Annamaria De Luca¹ (¹Bari, ²Manchester - United Kingdom, ³L'Aquila)

P136 Anthocyanin rich extract ameliorates palmitic acid-induced inflammation and hypertrophy in 3T3-L1 murine adipocytes
Claudia Muscarà, Cristina Occhiuto, Maria Sofia Molonia, Romina Bashllari, Francesco Cimino, Antonina Saija, Antonio Speciale (Messina)

P137 Effects of a seed extract of *Eruca sativa* Mill. in an experimental model of metabolic syndrome
Lorenzo Flori¹, Eugenia Piragine¹, Lara Testai¹, Valentina Citi¹, Alma Martelli¹, Andrea Pirone¹, Vincenzo Miragliotta¹, Roberto Matteo², Luisa Ugolini², Eleonora Pagnotta², Luca Lazzeri², Lorenzo Di Cesare Mannelli³, Carla Ghelardini³, Vincenzo Calderone¹ (¹Pisa, ²Bologna, ³Florence)

NUTRACEUTICALS AND NATURAL PRODUCTS IV (TOTEM 12)

Chairperson: **Raffaele Capasso** (Naples)

P138 Antioxidant effect of resveratrol in a mouse model of chronic ethanol addiction
Carla Petrella, Valentina Carito, Fausta Natella, Giampiero Ferraguti, Mauro Ceccanti, Antonio Greco, Massimo Ralli, Marco Fiore (Rome)

P139 Studying the chemopreventive properties of inflorescences from industrial hemp variety Felina 32 in relation to the phenolic and terpenoid composition
Antonella Di Sotto¹, Caterina Frascchetti¹, Marcello Locatelli², Giada Freddoni¹, Antonello Filippi¹, Simone Carradori², Cinzia Ingallina¹, Luisa Mannina¹, Gabriela Mazzanti¹, Silvia Di Giacomo¹ (¹Rome, ²Chieti)

P140 Effects of bud extracts from *Tilia tomentosa* Moench in central nervous system of mice: gender and age-dependency
Massimo Grilli¹, Guendalina Olivero¹, Federica Turrini¹, Giulia Vallarino¹, Matteo Vergassola¹, Dario Donno², Gabriele Loris Beccaro², Paola Zunin¹, Raffaella Boggia¹, Anna Pittaluga¹ (¹Genoa, ²Turin)

P141 *In vitro* bioaccessibility of an anthocyanin rich standardized extract from bilberry and blackcurrant
Romina Bashllari¹, Maria Sofia Molonia¹, Claudia Muscarà¹, Antonio Speciale¹, Antonina Saija¹, Mariateresa Cristani¹, Peter Wilde², Francesco Cimino¹ (¹Messina, ²Norwich - United Kingdom)

- P142** *Meripilus giganteus* ethanolic extract exhibits pro-apoptotic and anti-proliferative effects in leukemic cell lines
Monia Lenzi¹, Veronica Cocchi¹, Maria Cristina Barbalace², Patrizia Hrelia¹, Marco Malaguti², Silvana Hrelia² (¹Bologna, ²Rimini)
- P143** Effects of bergamot essential oil bergaptene-free in *in vivo* experimental models of inflammation and pain
Laura Musumeci, Giovanni Enrico Lombardo, Alessandro Maugeri, Caterina Russo, Carmen Mannucci, Santa Cirimi, Michele Navarra (Messina)

IMMUNOPHARMACOLOGY I (TOTEM 13)

Chairperson: **Michele Biagioli** (Perugia)

- P144** Modulatory effects of SERMs on macrophage phenotypic activation
Giovanna Pepe, Gian Enrico Rovati, Federica Mornata, Massimo Locati, Adriana Maggi, Elisabetta Vegeto (Milan)
- P145** Novel nonsteroidal anti-inflammatory drug and carbonic anhydrase inhibitor hybrids for the treatment of inflammation
Laura Lucarini, Mariaconcetta Durante, Silvia Sgambellone, Daniele Innocenti, Alessio Nocentini, Silvia Bua, Claudiu T. Supuran, Emanuela Masini (Florence)
- P146** The neuroprotective effects of micronized PEA (PEA-m) formulation on diabetic peripheral neuropathy in mice
Alessio Filippo Peritore, Daniela Impellizzeri, Rosalba Siracusa, Enrico Gugliandolo, Roberta Fusco, Marika Cordaro, Rosalia Crupi, Ramona D'Amico, Salvatore Cuzzocrea, Rosanna Di Paola (Messina)
- P147** A possible cross-talk between histamine H₄ receptor (H₄R) and A₃ adenosine receptor (A₃AR) on CD4⁺ T cells in resolution of neuropathic pain states
Mariaconcetta Durante¹, Laura Lucarini¹, Carla Ghelardini¹, Lorenzo Di Cesare Mannelli¹, Robin Thurmond², Emanuela Masini¹ (Florence, ²San Diego - USA)
- P148** Experimental colitis protection by a small molecule antagonizing Eph/ephrin system
Carmine Giorgio, Simone Palese, Massimiliano Tognolini, Riccardo Castelli, Lisa Flammini, Miriam Corrado, Elisabetta Barocelli, Simona Bertoni (Parma)
- P149** Pharmacological modulation of sphingosine-1-phosphate receptors in mesenteric ischemia-reperfusion
Simone Palese, Carmine Giorgio, Francesco Poti, Valentina Vivo, Irene Zini, Vigilio Ballabeni, Simona Bertoni, Elisabetta Barocelli (Parma)

IMMUNOPHARMACOLOGY II (TOTEM 13)

Chairperson: **Irene Paterniti** (Messina)

- P150** The protective effects of micronized Palmitoylethanolamide formulation on postoperative pain in rats
Enrico Gugliandolo, Alessio Filippo Peritore, Rosalba Siracusa, Roberta Fusco, Ramona D'Amico, Marika Cordaro, Daniela Impellizzeri, Rosalia Crupi, Rosanna Di Paola, Salvatore Cuzzocrea (Messina)
- P151** Extracellular Nicotinamide Phosphoribosyl Transferase (eNAMPT) promotes macrophage polarization and migration
Giorgia Colombo¹, Cristina Travelli², Chiara Porta¹, Armando A. Genazzani¹ (¹Novara, ²Pavia)
- P152** The role of thiopurine methyltransferase promoter methylation in azathioprine biotransformation in early-onset pediatric patients with inflammatory bowel disease
Sofia Pagarin¹, Marianna Lucafò², Giuliana Decorti¹, Gabriele Stocco¹, Susan Thompson³, Matteo Bramuzzo¹, Davide Selvestrel¹ (¹Trieste, ²Aviano, ³Cincinnati - USA)
- P153** A new bioinformatic tool in the precision medicine perspective: preliminary evidence of its prognostic and predictive value
Luigi Cari, Francesca De Rosa, Graziella Migliorati, Giuseppe Nocentini, Carlo Riccardi (Perugia)
- P154** Effect of donepezil on the expression and responsiveness to LPS of CHRNA7 and chRFAM7a in macrophages: a possible link to the cholinergic anti-inflammatory pathway
Simona Di Lascio, Silvia Cardani, Elisa Setten, Massimo Locati, Diego Fornasari, Roberta Benfante (Milan)
- P155** Dexamethasone modulates tryptophan 2,3-dioxygenase expression and activity in SK-Mel-28 human melanoma cell line
Astrid Parenti, Marta Cecchi, Sara Paccosi (Florence)

TOXICOLOGY I (TOTEM 14)

Chairperson: **Roberto Russo** (Naples)

- P156** Assessment of palytoxin irritation potential using an *in vitro* 3D epidermis model
Marco Pelin, Silvio Sosa, Cristina Ponti, Federica Cavion, Chiara Florio, Aurelia Tubaro (Trieste)
- P157** The novel butyrate derivative phenylalanine-butyramide protects from doxorubicin-induced cardiotoxicity
Michele Russo¹, Fiorentina Guida¹, Lorella Paparo¹, Giovanna Trinchese¹, Rosita Aitoro¹, Carmen Avagliano¹, Fabiana Napolitano¹, Antonella Fiordelisi¹, Valentina Mercurio¹, Valentina Sala², Mingchuan Li², Daniela Sorriento¹, Michele Ciccarelli³, Alessandra Ghigo², Emilio Hirsch², Roberto Bianco¹, Guido Iaccarino¹, Pasquale Abete¹, Domenico Bonaduce¹, Antonio Calignano¹, Roberto Berni Canani¹, Carlo Gabriele Tocchetti¹ (¹Naples, ²Turin, ³Salerno)

- P158** Growth promoting effects of Methylmercury on thyroid cells *in vitro*
Valentina Maggisano, Stefania Bulotta, Marilena Celano, Jessica Maiuolo, Michelangelo Iannone, Diego Russo (Catanzaro)
- P159** Toxicological investigation on a new topical hydroxypropil- β -cyclodextrin gel based formulation in male rat
Fatima Maqoud, Antonietta Mele, Nicola Zizzo, Rosa Scala, Nunzio Denora, Angela Assunta Lopodota, Domenico Tricarico (Bari)
- P160** Role of mitochondrial Connexin43 in Trastuzumab-induced cardiotoxicity
Ada Popolo, Michela Pecoraro, Aldo Pinto (Salerno)
- P161** Social defeat stress during early adolescence affects susceptibility to stress-related disorders in adult rats
Enrico Marchetta, Giulia Federica Mancini, Marta Splendori, Patrizia Campolongo (Rome)
- TOXICOLOGY II (TOTEM 14)**
Chairperson: **Maura Lodovici** (Florence)
- P162** Long-term effects of brief and repeated periods of brief social isolation stress during early adolescence
Giulia Federica Mancini, Enrico Marchetta, Marta Splendori, Marika Filosa, Patrizia Campolongo (Rome)
- P163** N-Methyl-2-Pirrolidone a new polar organic solvent in the drugs market of NPS: comparison with GHB and GVL in the mouse model
Raffaella Arfè (Ferrara)
- P164** The novel fentanyl-analog "Acrylfentanyl" impairs motor, sensorimotor and cardiovascular functions in mice
Sabrine Bilel (Ferrara)
- P165** The role played by environmental temperature on worsening effects of single injection of ($\pm$)cis-4,4'DMAR, ($\pm$)trans-4,4'DMAR and their co-administration in mice
Micaela Tirri (Ferrara)
- P166** Effects of myo-inositol alone and in combination with seleno-L-methionine on cadmium-induced testicular damage in mice
Giovanni Pallio, Francesco Squadrato, Natasha Irrera, Domenico Puzzolo, Antonio Micali, Domenica Altavilla, Letteria Minutoli (Messina)
- P167** Parental exposure to smoke and pregnancy outcomes
Emanuela Elisa Sorbara¹, Carmen Mannucci¹, Gioacchino Calapai¹, Fabrizio Calapai¹, Luigi Cardia¹, Angela Alibrandi¹, Alfredo Vannacci², Maria Carmela Lenti², Marcello Perone¹ (¹Messina, ²Florence)

NUTRACEUTICALS AND NATURAL PRODUCTS V (TOTEM 15)

Chairperson: **Claudio Ferrante** (Chieti)

- P168** Beneficial effect of a peptide derived from gastrointestinal digestion of Buffalo (*Bubalus bubalis*) mozzarella cheese on intestinal inflammation
Ester Pagano¹, Gian Carlo Tenore¹, Stefania Lama¹, Daniela Vanacore¹, Salvatore Di Maro², Maria Maisto¹, Raffaele Capasso¹, Francesco Merlino¹, Paola Stiuso¹, Ettore Novellino¹, Francesca Borrelli¹ (¹Naples, ²Caserta)
- P169** Evaluation of the mutagenic and antimutagenic activity of *Ammodaucus leucotrichus* and Perillaldehyde by flow cytometric analysis
Veronica Cocchi¹, Monia Lenzi¹, Carmela Fimognari², Patrizia Hrelia¹ (¹Bologna, ²Rimini)
- P170** Anti-inflammatory and antioxidant activity of *Aloe vera* gel and *Punica granatum*: onconutraceutical potential in intestinal epithelial cells
Shara Francesca Rapa¹, Donato Cianciarulo¹, Fabrizio Merciai¹, Emanuela Salvati¹, Giacomo Pepe¹, Eduardo Sommella¹, Roberto Profili², Michele Manfra³, Giuseppina Autore¹, Pietro Campiglia¹, Stefania Marzocco¹ (¹Salerno, ²Caserta, ³Potenza)
- P171** Effect of Plumericin on oxidative stress and barrier function in inflammatory bowel disease
Shara Francesca Rapa¹, Birgit Waltenberger², Rosanna Di Paola¹, Giuseppina Autore¹, Salvatore Cuzzocrea³, Hermann Stuppner², Stefania Marzocco¹ (¹Salerno, ²Innsbruck - Austria, ³Messina)
- P172** Protective effects of a natural polyphenolic complex on lipid accumulation and vascular damage in oxidative stress conditions
Cristina Carresi, Miriam Scicchitano, Vincenzo Musolino, Saverio Nucera, Micaela Gliozzi, Francesca Bosco, Federica Scarano, Jessica Maiuolo, Roberta Macri, Stefano Ruga, Francesca Noto, Maria Caterina Zito, Rocco Mollace, Beniamino Guerrieri, Lorenza Guarnieri, Martina Vitelli, Salvatore Ragusa, Ernesto Palma, Carolina Muscoli, Vincenzo Mollace (Catanzaro)
- P173** Effectiveness and tolerability of an overnight 4-week treatment with patch containing onion extract and allantoin for Cesarean section scars
Teresa Iannaccone¹, Graziamaria Corbi², Bianca Corrado¹, Luigi Giugliano¹, Antonella D'Apolito¹, Valentina Manzo¹, Maria Costantino¹, Maurizio Guida¹, Amelia Filippelli¹, Valeria Conti¹ (¹Salerno, ²Campobasso)

NUTRACEUTICALS AND NATURAL PRODUCTS VI (TOTEM 15)

Chairperson: **Mario Dell'Agli** (Milan)

- P174** Icariin protects H9C2 rat cardiomyoblasts from doxorubicin induced cardiotoxicity
Miriam Scicchitano, Cristina Carresi, Vincenzo Musolino, Jessica Maiuolo, Micaela Gliozzi, Francesca Bosco, Federica Scarano, Alessia Maretta, Saverio Nucera, Maria Caterina Zito, Roberta Macri, Stefano Ruga, Lorenza Guarnieri, Francesca Noto, Martina Vitelli, Beniamino Guerrieri, Rocco Mollace, Salvatore Ragusa, Ernesto Palma, Carolina Muscoli, Vincenzo Mollace (Catanzaro)
- P175** *Posidonia oceanica* (L.) Delile: antioxidant activity and nutraceutical content
Giorgio Giorgi, Agnese Manuguerra, Daniela Cerretani, Anna Ida Fiaschi, Laura Moltoni, Andrea Menchiari, Marco Rossi, Fausto Lorè, Simone Pannini, Lucia Micheli (Siena)
- P176** Evaluation of the effect of omega-3 fatty acid administration on cardiovascular outcomes: a meta-analysis of randomized controlled trials
Marta Gazzotti¹, Manuela Casula¹, Elena Olmastroni¹, Alberto Zambon², Alberico Luigi Catapano¹ (¹Milan, ²Padua)
- P177** Liposomes treatment antagonized dendritic spine loss and reduction of neurogenesis in hippocampus of chronically stressed rats
Cristina Mostallino¹, Francesca Biggio¹, Laura Boi¹, Valentina Locci¹, Rafaela Mostallino¹, Clara Porcedda¹, Gino Toffano², Giovanni Biggio¹ (¹Cagliari, ²Abano Terme)

NEUROPHARMACOLOGY VII (TOTEM 1)

Chairperson: **Gustavo Provensi** (Florence)

- P178** Relaxin-3 signalling in paraventricular nucleus of hypothalamus – pharmacological evidence for M-like potassium current activation
Alan Kania¹, Agata Szlaga¹, Patryk Sambak¹, Anna Gugula¹, Carlo Cifani², Andrew L. Gundlach³, Anna Blasiak¹ (¹Krakow - Poland, ²Camerino, ³Melbourne - Australia)
- P179** An irreversible A₃ adenosine receptor selective agonist ICBM inhibits N-type Ca²⁺ currents in rat dorsal root ganglion neurons
Federica Cherchi¹, Elisabetta Coppi¹, Irene Fusco¹, Mirko Scortichini², Kenneth A. Jacobson², Felicita Pedata¹, Anna Maria Pugliese¹ (¹Florence, ²Maryland - USA)
- P180** *In vitro* pharmacological characterization of transient receptor potential ankyrin 1 (TRPA1) agonists and antagonists
Chiara Sturaro¹, Chiara Ruzza¹, Delia Preti¹, Romina Nassini², Girolamo Calò¹, Pierangelo Geppetti² (¹Ferrara, ²Florence)
- P181** A2A-D2 heteromerization on striatal astrocytes: evidence and modulation of glutamate release
Chiara Cervetto¹, Simone Pelassa¹, Diego Guidolin², Monica Aversa¹, Rosa Bernardi³, Guido Maura¹, Luigi F. Agnati⁴, Manuela Marcoli¹ (¹Genoa, ²Padua, ³Milan, ⁴Modena)
- P182** Photobiomodulation and glutamate release from cerebrocortical nerve terminals
Manuela Marcoli, Andrea Amaroli, Guido Maura, Stefano Benedicenti, Chiara Cervetto (Genoa)
- P183** Effects of chronic administration of the adenosine A_{2B} receptor agonist BAY60-6583 on cerebral damage in a model of brain transient focal ischemia in the rat
Lisa Gaviano, Ilaria Dettori, Irene Bulli, Filippo Ugolini, Daniele Lana, Maria Grazia Giovannini, Felicita Pedata (Florence)
- P184** Immunopharmacological characterization of presynaptic release-regulating AMPA auto receptors in the cortex of mice
Francesca Cisani, Matteo Vergassola, Guendalina Olivero, Cesare Usai, Anna Pittaluga (Genoa)
- P185** mGlu1 receptor and GABAB receptor heterodimerization in cortical nerve terminals
Matteo Vergassola, Guendalina Olivero, Francesca Cisani, Alessandra Roggeri, Ilana Cervia, Cesare Usai, Simone Bossi, Aldamaria Puliti, Anna Pittaluga (Genoa)

- P186** Nootropic effects of alpha-glyceryl-phosphoryl-ethanolamine in human hippocampal cells
Giorgina Mangano¹, Simona Daniele², Lucia Durando¹, Claudia Martini² (¹S. Palomba-Pomezia, ²Pisa)

NEUROPHARMACOLOGY VIII (TOTEM 2)

Chairperson: **Livio Luongo** (Naples)

- P187** Palmitoylethanolamide reduces pain perception alterations in a central post-stroke pain (CPSP) model
Rosmara Infantino, Monica Iannotta, Carmela Belardo, Livio Luongo, Ida Marabese, Vito de Novellis, Enza Palazzo, Flavia Ricciardi, Mariantonietta Scafuro, Sabatino Maione (Naples)
- P188** Oral cannabidiol prevents allodynia and neurological dysfunctions in a mouse model of mild traumatic brain injury
Carmela Belardo¹, Monica Iannotta¹, Serena Boccella¹, Rosamaria Cristina Rubino², Flavia Ricciardi¹, Rosmara Infantino¹, Gorizio Pieretti¹, Luigi Stella¹, Salvatore Paino¹, Ida Marabese¹, Rosa Maisto¹, Livio Luongo¹, Sabatino Maione¹, Francesca Guida¹ (¹Naples, ²Bologna)
- P190** Simultaneous activation of mu and delta opioid receptors reduces allodynia and astrocytic connexin 43 in an animal model of neuropathic pain
Nunzio Vicario, Lorella Pasquinucci, Federica Maria Spitale, Santina Chiechio, Rita Turnaturi, Filippo Caraci, Daniele Tibullo, Roberto Avola, Rosario Gulino, Rosalba Parenti, Carmela Parenti (Catania)
- P191** A fluorescence-based assay to evaluate the activity of novel Kv7.2/Kv7.3 channel modulators
Piera Nappi¹, Francesco Miceli¹, Lidia Carotenuto¹, Carmine Ostacolo¹, Pietro Campiglia², Maurizio Tagliatela¹ (¹Naples, ²Salerno)
- P192** Development and characterization of a new implantable biosensor for *in vivo* monitoring of brain glutamate
Andrea Bacciu, Paola Arrigo, Pier Andrea Serra, Gaia Rocchitta (Sassari)
- P193** A methodology for adult astrocytes ex vivo study: looking for new therapeutic targets
Alessandra Toti, Laura Micheli, Elena Lucarini, Carmen Parisio, Lorenzo Di Cesare Mannelli, Carla Ghelardini (Florence)
- P194** Safe and long-lasting transgene expression in the central nervous system using Herpes Simplex Virus -1 amplicon vectors
Silvia Zucchini¹, Marie Soukupova¹, Pascal Trempat², Coline Perrier-Biollay², Selene Ingusci¹, Hervé Berthommé², Michele Simonato¹ (¹Ferrara, ²Villeurbanne - France)

- P195** Generation and characterization of cell lines stably expressing different isoforms of KCNQ potassium channels suitable for drug screening
Isabella Coletta, Barbara Garofalo, Rosella Ombrato, Claudio Milanese, Francesco Paolo Di Giorgio, Serena Tongiani (Rome)

NEUROPHARMACOLOGY IX (TOTEM 3)

Chairperson: **Marco Milanese** (Genoa)

- P196** Formyl peptide receptor 1 signalling in acute inflammation and neural differentiation induced by traumatic brain injury
Roberta Fusco¹, Maria Scuto², Enrico Gugliandolo¹, Marika Cordaro¹, Ramona D'Amico¹, Rosalba Siracusa¹, Alessio Filippo Peritore¹, Daniela Impellizzeri¹, Rosalia Crupi¹, Salvatore Cuzzocrea¹, Rosanna Di Paola¹ (¹Messina, ²Catania)
- P197** Deficiency of serotonin at central or peripheral level alters neuroplastic and epigenetic mechanisms in adult rats
Giulia Sbrini¹, Paola Brivio¹, Natalia Alenina², Judith Homberg³, Francesca Calabrese¹ (¹Milan, ²Berlin - Germany, ³Nijmegen - The Netherlands)
- P198** Brain histamine is essential for long-term but not short-term social memory
Barbara Rani¹, Bruna Silva-Marques², Patrizio Blandina¹, Maria Beatrice Passani¹, Rob Leurs³, Gustavo Provensi¹ (¹Florence, ²Sao Carlos - Brazil, ³Amsterdam - The Netherlands)
- P200** Prokineticins induce the upregulation of histone demethylase KDM5C and KDM6A in bortezomib-induced peripheral neuropathy in mice
Laura Rullo¹, Francesca Felicia Caputi¹, Serena Stamatakis¹, Silvia Franchi², Giorgia Moschetti², Sanzio Candeletti¹, Paola Sacerdote², Patrizia Romualdi¹ (¹Bologna, ²Milan)
- P201** Pharmacological restoration of autophagic flux in neuronal cultures protects from toxicity of prion protein fragment 90-231
Tullio Florio, Stefano Thellung, Alessandro Corsaro, Federica Barbieri, Martina Zambito, Katia Cortese (Genoa)
- P202** New insights into the molecular mechanisms of the vardenafil-induced production of amyloid-beta
Ernesto Fedele, Francesca Caudano, Giulia Montalto, Mario Passalacqua, Roberta Ricciarelli (Genoa)
- P203** Adult neural progenitor cells as new tool to study hypothalamic neurogenesis
Heather Bondi, Valeria Bortolotto, Alexia Car, Pier Luigi Canonico, Mariagrazia Grilli (Novara)

- P204** Retinal miRNA profile and electroretinography in dysbindin-1 null mutant albino mice: implications in Hermansky-Pudlak syndrome 7
Giovanni Luca Romano¹, **Chiara Bianca Maria Platania**², **Gian Marco Leggio**², **Sebastiano Alfio Torrisi**², **Salvatore Salomone**², **Michele Purrello**², **Marco Ragusa**², **Cristina Barbagallo**², **Federica Conti**², **Rosa Mastrogiacomo**³, **Francesca Managò**³, **Maurizio Cammalleri**⁴, **Francesco Papaleo**³, **Filippo Drago**², **Claudio Bucolo**² (¹Miami - USA, ²Catania, ³Genoa, ⁴Pisa)

PHARMACOEPIDEMOLOGY AND PHARMAECONOMY I (TOTEM 4)

Chairperson: **Ersilia Lucenteforte** (Pisa)

- P205** Characterization of new users of PCSK9 inhibitors in Tuscany: a drug utilization study based on regional administrative data
Carlo Piccinni¹, **Ippazio Cosimo Antonazzo**², **Aldo Pietro Maggioni**¹, **Antonella Pedrini**¹, **Silvia Calabria**¹, **Giulia Ronconi**¹, **Letizia Dondi**¹, **Nello Martini**¹, **Giuseppe Roberto**², **Tiziana Sampietro**³, **Francesco Sbrana**³, **Beatrice Dal Pino**³, **Federico Bigazzi**³, **Giuseppa Lo Surdo**⁴, **Elisabetta Volpi**⁴, **Stefania Biagini**⁴, **Rosa Gini**² (¹Casalecchio di Reno, ²Florence, ³Pisa, ⁴Massa)

- P206** Current use of sedative drugs in paediatric intensive care units: a market evaluation of clonidine use and its economic impact
Fedele Bonifazi¹, **Mirella Corio**¹, **Emilio Chiarolla**¹, **Viviana Giannuzzi**¹, **Annalisa Landi**¹, **Elisabetta Graps**¹, **Gabriele Ahne**², **Manuel Baarslag**³, **Nicola Laforgia**¹, **Antje Neubert**³, **Paula Pokorna**⁴, **Alessandra Simonetti**⁵, **Irmgard Toni**², **Maxi Torau**², **Thomas M.K. Völkl**², **Adriana Ceci**¹ (¹Bari, ²Erlangen - Germany, ³Rotterdam - The Netherlands, ⁴Prague - Czech Republic, ⁵Rome)

- P207** Linking administrative and hospital-pharmacy data to study drug utilization, survival and adverse infectious events in patients treated with rituximab at the University Hospital of Siena, Italy
Andrea Spini¹, **Claudia Bartolini**², **Valentino Moscatelli**¹, **Alessandro Barchielli**², **Davide Paoletti**¹, **Silvano Giorgi**¹, **Alberto Fabbri**¹, **Monica Bocchia**¹, **Sandra Donnini**¹, **Rosa Gini**², **Marina Ziche**¹, **Giuseppe Roberto**² (¹Siena, ²Florence)

- P208** Linking regional administrative healthcare data with the pathology registry of the University Hospital of Siena (Italy) to describe treatment patterns of patients with non-small-cell lung cancer
Andrea Spini¹, **Giuseppe Roberto**², **Cristiana Bellan**¹, **Alessandra Pascucci**¹, **Pietro Rosellini**¹, **Adele Caldarella**², **Alessandro Barchielli**², **Edoardo Francini**³, **Sandra Donnini**¹, **Folco Furiesi**¹, **Lorenzo Leoncini**¹, **Silvano Giorgi**¹, **Claudia Bartolini**², **Marco Zappa**², **Rosa Gini**², **Marina Ziche**¹ (¹Siena, ²Florence, ³Rome)

- P209** Analysis of persistence to the treatment among antidepressants users in Tuscany: a large regional drug-utilization study
Ippazio Cosimo Antonazzo¹, **Giuseppe Roberto**¹, **Elisabetta Poluzzi**², **Rosa Gini**¹ (¹Florence, ²Bologna)

- P210** Pharmacological interventions for the prevention of foetal growth restriction: systematic review and network meta-analysis
Alessandra Bettiol¹, Niccolò Lombardi¹, Giada Crescioli¹, Laura Avagliano², Alessandro Mugelli¹, Claudia Ravaldi³, Alfredo Vannacci³ (¹Florence, ²Milan, ³Prato)
- P211** Evaluation of the appropriateness of use, effectiveness and safety of the different antidiabetic drugs in clinical practice: a population-based study in Southern Italy
Salvatore Crisafulli¹, Ylenia Ingrasciotta¹, Valentina Ientile¹, Maria Paola Bertuccio¹, Angela Alibrandi¹, Maurizio Pastorello², Ilaria Uomo², Salvatore Scondotto², Alessandro Scorsone², Vincenzo Provenzano², Gianluca Trifirò¹ (¹Messina, ²Palermo)
- P212** Time to treatment intensification in patients on dual pharmacotherapy for type 2 diabetes: metformin+dipeptidyl peptidase inhibitor versus metformin+sulphonilura
Giuseppe Roberto¹, Francesco Barone-Adesi², Valeria Pizzimenti³, Valentina Ientile³, Claudia Bartolini¹, Corrado Magnani², Marina Maggini⁴, Roberto Da Cas⁴, Stefania Spila-Alegiani⁴, Carmen Ferrajolo⁵, Paolo Francesconi¹, Gianluca Trifirò³, Elisabetta Poluzzi⁶, Fabio Baccetti⁷, Rosa Gini¹ (¹Florence, ²Novara, ³Messina, ⁴Rome, ⁵Naples, ⁶Bologna, ⁷Massa)
- P213** Cumulative exposure to bisphosphonates and incidence of cardiovascular and cerebrovascular events: a population-based cohort study
Manuela Casula, Elena Olmastroni, Federica Galimberti, Elena Traghi, Giovanni Corrao, Lorenza Scotti, Alberico L. Catapano (Milan)

PERSONALIZED MEDICINE I (TOTEM 5)

Chairperson: **Marzia del Re** (Pisa)

- P214** Convergent sequencing and microarray data analyses suggest the involvement of miRNAs and target mRNAs in lithium response in bipolar disorder
Alessio Squassina¹, Claudia Pisanu¹, Eleni Merkouri Papadima¹, Carla Melis¹, Stefano Calza², Annalisa Loizedda³, Nicola Orrù¹, Giovanni Severino¹, Raffaella Ardau¹, Caterina Chillotti¹, Sandro Orrù¹, Carlo Carcassi¹, Maria Del Zompo¹ (¹Cagliari, ²Brescia, ³Monserrato)
- P215** Differences in leukocyte telomere length between bipolar disorder patients and non-psychiatric controls are influenced by lithium treatment
Alessio Squassina¹, Claudia Pisanu¹, Donatella Congiu¹, Giovanni Severino¹, Alberto Bocchetta¹, Raffaella Ardau¹, Zoi Kordou², Theano Stamopoulou², Evangelia Eirini Tsermpini², George P. Patrinos², Caterina Chillotti¹, Maria Del Zompo¹ (¹Cagliari, ²Patras - Greece)

- P216** Development and validation of LC-MS/MS method for sorafenib, regorafenib and their active metabolites in hepatocellular carcinoma patients
Martina Zanchetta, Valentina Iacuzzi, Bianca Posocco, Elena Marangon, Ariana Soledad Poetto, Mauro Buzzo, Sara Gagno, Giuseppe Toffoli (Aviano)
- P217** Role of intestinal microbiota in mediating the effects of thiopurines
Martina Franzin¹, Marianna Lucafò², Cristina Lagatolla¹, Marco Pelin¹, Gabriele Stocco¹, Giuliana Decorti¹ (¹Trieste, ²Aviano)
- P218** Anti-tumor necrosis factor mechanism of action: what is the role of CD69 in infliximab response?
Debora Curci¹, Marianna Lucafò², Elisa Piscianz¹, Matteo Bramuzzo¹, Gabriele Stocco¹, Giuliana Decorti¹ (¹Trieste, ²Aviano)
- P219** Induced pluripotent stem cells as an innovative model for pharmacological studies in patients with Aicardi-Goutières Syndrome
Federica Cavion¹, Elena Genova¹, Marianna Lucafò², Marco Pelin¹, Alessandra Tesser¹, Elisa Piscianz¹, Gaetana Lanzi³, Stefania Masneri³, Rosalba Ferraro³, Giuliana Decorti¹, Alberto Tommasini¹, Silvia Giliani³, Gabriele Stocco¹ (¹Trieste, ²Aviano, ³Brescia)
- P220** Investigations on the molecular mechanism of PACSIN2 in the regulation of TPMT activity and autophagy
Giulia Zudeh, Raffaella Franca, Gabriele Stocco, Giuliana Decorti (Trieste)
- P221** SIRT1 activity and different heart failure phenotypes
Valentina Manzo¹, Valeria Conti¹, Graziamaria Corbi², Michele Ciccarelli¹, Maria Vincenza Polito¹, Teresa Iannaccone¹, Martina Torsiello¹, Emanuela De Bellis¹, Maria Costantino¹, Federica D'Auria¹, Gennaro Vitulano¹, Federico Piscione¹, Amelia Filippelli¹ (¹Salerno, ²Campobasso)
- P222** Mechanisms of resistance to a PI3K Inhibitor in Gastrointestinal Stromal Tumors: an omic approach aimed to identify novel druggable targets
Gloria Ravegnini¹, Federica Zanotti¹, Giulia Sammarini¹, Sebastian Moran², Giovanni Calice³, Valentina Indio¹, Milena Urbini¹, Annalisa Astolfi¹, Maria Pantaleo¹, Patrizia Hrelia¹, Sabrina Angelini¹ (¹Bologna, ²Barcelona - Spain, ³Rionero in Vulture)
- RARE DISEASES DRUGS (TOTEM 6)**
Chairperson: Valentina Vellecco (Naples)
- P224** *In vivo/ex vivo* consequences of ATP-sensitive potassium channels overactivity in transgenic mice mirroring the human Cantu Syndrome
Fatima Magoud¹, Rosa Scala¹, Antonietta Mele¹, Francesca Sanarica¹, Conor McClenaghan², Theresa M. Harter², Colin G. Nichols², Domenico Tricarico¹ (¹Bari, ²Saint Louis - USA)

- P225** Biophysical and pharmacological response of ATP-sensitive potassium channels in transgenic Cantu mice het kir6.1V65M (kir6.1wt/V65M) in fibers from fast-twitch and slow-twitch skeletal muscles, dermal skin fibroblasts and osteoblasts from long bones and calvaria
Rosa Scala¹, Fatima Maquoud¹, Conor McClenaghan², Theresa M. Harter², Colin G Nichols², Domenico Tricarico¹ (¹Bari, ²Saint Louis - USA)
- P226** Pharmacological targeting of neuronal Kv1.1 potassium channels: in search of novel therapeutic approach for episodic ataxia type 1
Paola Imbrici, Dalila Sahbani (Bari)
- P227** Rare diseases and clinical research: the 10-years experience of ASL Lecce Ethics Committee
Maria Rita De Giorgio, Cinzia Morciano, Stefania Di Noia, Diana Conte (Lecce)
- P228** Pharmacological chaperone to treat myotonia congenita caused by trafficking-defective CIC-1 chloride channel mutants: proof-of-concept with niflumic acid
Concetta Altamura¹, Dalila Sahbani¹, Elena Conte¹, Francesco Girolamo¹, Sabrina Lucchiarì², Giacomo P. Comi², Mauro Lo Monaco³, Evgeniya Ivanova⁴, Maria Rosaria Carratù¹, Diana Conte Camerino¹, Paola Imbrici¹, Jean-François Desaphy¹ (¹Bari, ²Milan, ³Rome, ⁴Moscow - Russia)
- P229** Development of new benzothiazolamines to enhance use-dependent inhibition of voltage-gated sodium channels
Concetta Altamura, Alessandro Farinato, Sabata Pierno, Nancy Tarantino, Maria Maddalena Cavalluzzi, Giovanni Lentini, Maria Rosaria Carratù, Jean-François Desaphy (Bari)
- P230** Metabolic and epigenetic regulators as pathology and therapy biomarkers in preclinical research on Duchenne Muscular Dystrophy: new insights into the gene and protein expression profile in murine models
Brigida Boccanegra¹, Paola Mantuano¹, Francesca Sanarica¹, Gianluca Fossati², Monica Forino², Valeria Spadotto², Christian Steinkühler², Annamaria De Luca¹ (¹Bari, ²Milan)
- P231** Safinamide repositioning in non dystrophic myotonias: a new therapeutic opportunity for this rare disease
Jean-Francois Desaphy¹, Michela De Bellis¹, Alessandro Farinato¹, Concetta Altamura¹, Paola Imbrici¹, Carla Caccia², Elsa Melloni², Gloria Padoani², Silvia Vailati², Charlotte Keywood², Diana Conte¹, Sabata Pierno¹ (¹Bari, ²Bresso)

PHARMACOVIGILANCE V (TOTEM 7)

Chairperson: **Carla Carnovale** (Milan)

- P232** Vaccines safety in children and in general population: a pharmacovigilance study on adverse events following immunization in Italy
Niccolò Lombardi¹, Giada Crescioli¹, Alessandra Bettiol¹, Marco Tuccori², Marco Rossi³, Roberto Bonaiuti¹, Claudia Ravaldi¹, Miriam Levi¹, Silvia Ricci¹, Francesca Lippi¹, Martina Del Lungo¹, Linda Giovannetti¹, Valentina Borsi¹, Maria Parrilli¹, Chiara Azzari¹, Paolo Bonanni¹, Alessandro Mugelli¹, Alfredo Vannacci¹ (¹Florence, ²Pisa, ³Siena)
- P233** Surveillance of adverse events following immunization related to human papillomavirus vaccines: 12 years of vaccinovigilance in Southern Italy
Cristina Scavone, Cristina Di Mauro, Simona Brusco, Michele Bertini, Gabriella di Mauro, Concetta Rafaniello, Liberata Sportiello, Annalisa Capuano (Naples)
- P234** Adverse drug reactions during hepatitis C treatment with direct-acting antivirals: The role of medication errors, their impact on treatment discontinuation and their preventability. New insights from the Campania Region (Italy) spontaneous reporting system
Maurizio Sessa¹, Francesca Futura Bernardi¹, Andrea Vitale², Beniamino Schiavone², Giulia Gritti¹, Annamaria Mascolo¹, Michele Bertini¹, Cristina Scavone¹, Liberata Sportiello¹, Annalisa Capuano (¹Naples, ²Castel Volturno)
- P235** The usefulness of listening social media for pharmacovigilance purposes
Irma Convertino, Sara Ferraro, Luca Leonardi, Corrado Blandizzi, Marco Tuccori (Pisa)
- P236** Allopurinol-induced severe cutaneous adverse drug reactions: an analysis of spontaneous reporting system in Southern Italy
Cristina Di Mauro, Cristina Scavone, Rosanna Ruggiero, Francesca Futura Bernardi, Ugo Trama, Maria Luisa Aiezza, Concetta Rafaniello, Annalisa Capuano (Naples)
- P237** Unresolved gustatory, olfactory and auditory adverse drug reactions to antibiotic drugs: a survey of spontaneous reporting to Eudravigilance
Sara Ferraro, Irma Convertino, Luca Leonardi, Corrado Blandizzi, Marco Tuccori (Pisa)
- P238** Safety of non-vitamin K antagonist oral anticoagulants and warfarin: analysis of EMA pharmacovigilance database reports
Lucia Gozzo, Laura Longo, Daniela Cristina Vitale, Filippo Drago (Catania)
- P239** Efficacy of methadone in drug use disorder in chronic non-cancer pain
Daniele Innocenti, Guido Mannioni, Matilde Degano, Cecilia Lanzi, Brunella Occupati (Florence)

BASIC AND CLINICAL RESEARCH V (TOTEM 8)

Chairperson: **Alfredo Vannacci** (Florence)

- P240** Induced pluripotent stem cells-derived neurons as disease models to investigate the molecular pathogenesis and pharmacological responses in genetically-determined epileptic channelopathies
Elena Longobardi¹, Sebastien Moutton², Francesco Miceli¹, Giusy Laudati¹, Anna Lauritano¹, Rita Cicatiello¹, Lucio Nitsch¹, Maurizio Taglialatela¹ (¹Naples, ²Dijon - France)
- P241** Targeting glucose-6-phosphate dehydrogenase with a combination of liposomal cisplatin and 6-amino nicotinamide as new strategy to overcome cisplatin-resistance
Veronica Cocetta, Daniela Catanzaro, Eugenio Ragazzi, Gianfranco Pasut, Monica Montopoli (Padua)
- P242** Vulnerability traits exhibited by MAO-A hypomorphic mice
Valeria Serra¹, Silvia Fanni¹, Claudia Sagheddu¹, Francesco Traccis¹, Paola Devoto¹, Roberto Frau¹, Miriam Melis¹, Marco Bortolato² (¹Cagliari, ²Salt Lake City - USA)
- P243** Characterization of chloride channel 1 from birth to aging in rat fast and slow twitch muscles by the analysis of gene and protein expression, cellular localization and modulation by PKC
Elena Conte, Adriano Fonzino, Antonio Cibelli, Paola Imbri, Grazia Paola Nicchia, Sabata Pierno, Annamaria De Luca, Giulia Maria Camerino (Bari)
- P244** Role of RACK1 mediated signalling in breast cancer cells migration/metastasis
Erica Buoso¹, Melania Ronfani¹, Mirko Masi¹, Marilisa Galasso², Denise Ventura¹, Emanuela Corsini³, Marco Racchi¹ (¹Pavia, ²Verona, ³Milan)
- P245** Homeobox transcription factors OTX1 and OTX2 Involvement in rat myenteric plexus plasticity after DNBS-induced colitis
Annalisa Bosi¹, Michela Bistoletti¹, Giovanni Micheloni¹, Elisabetta Moro², Andreina Baj¹, Francesca Crema², Giovanni Porta¹, Cristina Giaroni¹ (¹Varese, ²Pavia)
- P246** The efficacy of late sodium current blockers in hypertrophic cardiomyopathy is dependent on genotype: a study on transgenic mouse models with different mutations
Lorenzo Santini (Florence)
- P247** Delta-9-tetrahydrocannabinol and cannabidiol for the treatment of refractory pain in failed back surgery syndrome
Luigi Cardia, Epifanio Mondello, Domenico Quattrone, Giuseppe Bova, Alessia Barbagallo, Cristina Mondello, Carmen Mannucci, Fabrizio Calapai, Emanuela Elisa Sorbara, Vincenzo Arcoraci, Gioacchino Calapai (Messina)

- P248** OMERO study: an example of application of the new digital technologies in clinical research
Marco Morina, Marco Angelo Scatigna (Milan)

BASIC AND CLINICAL RESEARCH VI/PHARMACOLOGY OF THE EYE AND THE EAR (TOTEM 9)

Chairperson: **Michele D'Amico** (Naples)

- P249** Medication Related Osteonecrosis of the Jaw: Melatonin functions and effects
Guido Lorenzini, Simone Pannini, Marco Rossi, Giorgio Giorgi (Siena)

- P250** New insights into muscle atrophy: exploring the relationship between muscle and bone
Francesca Bosco¹, Vincenzo Musolino¹, Micaela Gliozzi¹, Miriam Scicchitano¹, Saverio Nucera¹, Federica Scarano¹, Cristina Rita Carresi¹, Jessica Maiuolo¹, Stefano Ruga¹, Maria Caterina Zito¹, Francesca Rita Noto¹, Martina Vitelli¹, Beniamino Guerrieri¹, Lorenza Guarnieri¹, Alessia Maretta¹, Filomena Lauro², Luigino Antonio Gancott², Sara Ilari², Salvatore Ragusa¹, Ernesto Palma¹, Carolina Muscoli¹, Vincenzo Mollace¹ (¹Catanzaro, ²Rome)

- P251** Obesity is associated with *in vivo* platelet activation and impaired responsiveness to once-daily, low-dose aspirin
Giovanna Petrucci¹, Francesco Zaccardi², Alberto Giarretta³, Viviana Cavalca⁴, Carmine Cardillo¹, Dario Pitocco¹, Benedetta Porro⁴, Francesca Schinsari¹, Francesca Pagliaccia¹, Gianna Toffolo³, Elena Tremoli⁴, Bianca Rocca¹ (¹Rome, ²Leicester - United Kingdom, ³Padua, ⁴Milan)

- P252** ARPE-19-derived VEGF-containing exosomes promote neovascularization in HUVEC: the role of the melanocortin receptor 5
Rosa Maisto¹, Maria Oltra², Lorena Vidal Gil², Natalia Martínez-Gil², Francisco Javier Sancho-Pellú², Rossi Settimio¹, Michele D'Amico¹, Jorge Miquel Barcia², Francisco Javier Romero Gomez² (¹Naples, ²Valencia - Spain)

- P253** Blood-retinal barrier protection against high glucose damage: the role of P2X7 receptor
Claudia Giuseppina Fresta, Chiara Bianca Maria Platania, Francesca Lazzara, Annamaria Fidilio, Giovanni Giurdanella, Federica Conti, Gian Marco Leggio, Salvatore Salomone, Filippo Drago, Claudio Bucolo (Catania)

- P254** Atropine repositioning in clinical research
Maddalena Toma¹, Rosa Conte¹, Antonella Didio¹, Fedele Bonifazi¹, Viviana Giannuzzi¹, Annegret Dahlmann Noor², Oscar Della Pasqua², Catherine Tuleu², Adriana Ceci¹ (¹Bari, ²London - United Kingdom)

- P255** Effects of ototoxic drugs on a new *in vitro* model of stria vascularis
Federica Conti, Giovanni Giurdanella, Florinda Gennuso, Claudio Bucolo, Filippo Drago, Salvatore Salomone (Catania)

- P256** Small molecules to treat diabetic retinopathy: *in silico* and *in vitro* approaches for discovery of HuR inhibitors
Chiara Bianca Maria Platania¹, Nicoletta Marchesi², Valeria Pittalà¹, Martina Cristaldi¹, Melania Oliveri¹, Daniela Anfuso¹, Gabriella Lupo¹, Filippo Drago¹, Alessia Pascale², Claudio Bucolo¹ (¹Catania, ²Pavia)

PHARMACOGNOSY AND NATURAL DRUGS III/IMMUNOPHARMACOLOGY III
 Chairperson: **Sanzio Candeletti** (Bologna) (TOTEM 10)

- P257** Contribution of polyphenols and ascorbic acid to the antioxidant and anti-inflammatory activity of *Citrus lumia* Risso juice
Marcella Denaro, Antonella Smeriglio, Clara De Francesco, Domenico Trombetta (Messina)
- P258** Comparison between the biological activity of betalain cactus pear (*Opuntia ficus indica* Mill.) extracts and the main isolated bioactive compound
Clara De Francesco, Antonella Smeriglio, Marcella Denaro, Domenico Trombetta (Messina)
- P259** Cuban propolis suppresses the proliferation of human colon cancer cells and inhibits cell metastatic properties
Yahima Frion Herrera, Michela Scaffidi, Daniela Gabbia, Maria Carrara (Padua)
- P260** *Artocarpus tonkinensis* protects mice against collagen-induced arthritis and decreases Th17 cell function
Sabrina Adorisio, Isabella Muscari, Lorenza Cannarile, Emira Ayroldi, Carlo Riccardi, Domenico V. Delfino (Perugia)

- P261** Chemical profiling and pharmaco-toxicological activity of *Origanum sipyleum* extracts: Exploring for novel sources for potential therapeutic agents
Gokhan Zengin¹, Lucia Recinella², Annalisa Chiavaroli², Sheila Leone², Luigi Brunetti², Luigi Menghini², Giustino Orlando², Claudio Ferrante² (¹Konya - Turkey, ²Chieti)

- P262** Chemical profiles and pharmacological activity of two *Anthemis* species: *Anthemis tinctoria* var. *pallida* and *A. cretica* subsp. *tenuiloba*
Claudio Ferrante, Gokhan Zengin, Lucia Recinella, Annalisa Chiavaroli, Sheila Leone, Luigi Brunetti, Luigi Menghini, Giustino Orlando (Chieti)

- P263** Protective and restorative effect of nutrients and phytochemicals
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)

- P264** Spermidine is a novel modulator of Src Kinase-mediated signaling pathway in dendritic cells
Giada Mondanelli, Elisa Proietti, Marco Gargaro, Ciriana Orabona, Claudia Volpi (Perugia)

- P265** SUMO proteins: guardians of immune system
Isabella Muscari, Sabrina Adorisio, Carlo Riccardi, Domenico Delfino (Perugia)

PHARMACOLOGY OF CARDIOVASCULAR AND KIDNEY FUNCTION III/
PHARMACOLOGY OF METABOLISM AND ENDOCRINE SYSTEM III
Chairperson: **Antonella De Angelis** (Naples) (TOTEM 11)

- P266** Cardiovascular alterations in eating disorders
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)

- P267** Gender difference in adenosine diphosphate-induced rat platelet aggregation: a role for the ectonucleotide triphosphate diphosphohydrolase 1 enzyme
Elisabetta Caiazzo, Rossella Bilancia, Antonietta Rossi, Armando Ialenti, Carla Cicala (Naples)

- P268** Vasoactivity of Mantonico and Pecorello grape pomaces on rat aorta rings: an insight into nutraceutical development
Miriam Durante¹, Gabriele Carullo², Fabio Sciubba³, Donatella Restuccia², Umile Gianfranco Spizzirri², Amer Ahmed¹, Maria Enrica Di Cocco³, Francesca Aiello², Fabio Fusi¹, Simona Saponara¹ (¹Siena, ²Cosenza, ³Rome)

- P269** Association between apolipoprotein B lowering and cardiovar risk reduction: a meta-analysis of randomized controlled trials
Federica Galimberti¹, Alberico L. Catapano¹, Arjen J. Cupido², Julius L. Katzmann³, Anthony C. Keech⁴, Allan D. Sniderman⁵, Brian A. Ference⁶ (¹Milan, ²Amsterdam - The Netherlands, ³Leipzig - Germany, ⁴Sidney - Australia, ⁵Montreal - Canada, ⁶Cambridge - United Kingdom)

- P270** Physiologically-based pharmacokinetic and pharmacodynamic modelling of the antiplatelet effect of aspirin to characterize variables affecting drug response
Alberto Giarretta¹, Carlo Patrono², Bianca Rocca², Gianna Toffolo¹ (¹Padua, ²Rome)

- P271** Perivascular adipose tissue modulation of quercetin vasorelaxant effects on rat aorta rings
Amer Ahmed, Stefano Tagliafierro, Silvia Conti, Fabio Fusi, Massimo Valoti (Siena)

- P272** Impact of dipeptidyl-peptidase IV inhibitors as add-on therapy to metformin on circulating oxidative stress biomarkers and microRNAs in patients with type 2 diabetes: an observational study
Elisabetta Bigagli, Cristina Luceri, Ilaria Dicembrini, Edoardo Mannucci, Lorenzo Tatti, Lisa Giovannelli, Maura Lodovici (Florence)

- P273** 3-iodothyronamine(T1AM) reduces brown adipose tissue differentiation and function
Manuela Gencarelli, Costanza Mazzantini, Annunziatina Laurino, Laura Raimondi (Florence)

IMMUNOPHARMACOLOGY IV (TOTEM 12)

Chairperson: **Stefano Bruscoli** (Perugia)

- P274** Indoxyl Sulfate affects immune response and intestinal homeostasis in mice regulating inflammatory response and oxidative stress
Shara Francesca Rapa¹, Donato Cianciarulo¹, Ada Popolo¹, Giuseppina Autore¹, Valentina Iovane¹, Biagio Raffaele Di Iorio², Fuyu Nishijima³, Orlando Paciello⁴, Aldo Pinto¹, Stefania Marzocco¹ (¹Salerno, ²Avellino, ³Tokyo - Japan, ⁴Naples)
- P275** N-acetylserotonin exerts neuroprotective effects enhancing IDO1 catalytic activity
Eleonora Panfili¹, Claudia Volpi¹, Giada Mondanelli¹, Laura Santambrogio², Ursula Grohmann¹ (¹Perugia, ²New York - USA)
- P276** The orphan nuclear receptor NR2F6 as a novel regulator of immune responses
Eleonora Padiglioni, Giorgia Manni, Marco Gargaro, Francesca De Franco, Francesco Greco, Antonio Macchiarulo, Roberto Pellicciari, Francesca Fallarino (Perugia)
- P278** High-throughput mirnome and transcriptome profiling in thalidomide sensitive pediatric inflammatory bowel disease patients
Marianna Lucafò¹, Matteo Bramuzzo², Letizia Pugnetti², Marco Gerdol², Samuele Greco², Monica Paci³, Debora Curci², Sara Renzo³, Paolo Lionetti³, Alberto Pallavicini², Giuliana Decorti², Gabriele Stocco² (¹Aviano, ²Trieste, ³Florence)
- P279** Targets of dimethyl fumarate: a novel predictive method based on concepts of network theory and machine learning
Arianna Carolina Rosa, Elisa Benetti, Jessica Audisio, Gianluca Miglio (Turin)
- P280** Pharmacological characterization of new NLRP3 inflammasome inhibitors
Valentina Boscaro, Simone Gastaldi, Marco Marino, Marta Giorgis, Elisabetta Marini, Massimo Bertinaria, Margherita Gallicchio (Turin)
- P281** Beta-caryophyllene mitigates collagen antibody induced arthritis in mice through a cross-talk between the cannabinoid 2 and peroxisome proliferator-activated receptor gamma receptors
Natasha Irrera, Angela D'Ascola, Alessandra Bitto, Giovanni Pallio, Federica Mannino, Letteria Minutoli, Francesco Squadrito, Domenica Altavilla (Messina)
- P282** Effects of lipoxigenase inhibitors on eicosanoid production in human whole blood and isolated platelets *in vitro*
Rosa Fullone, Melania Dovizio, Stefania Tacconelli, Mirko Zucchelli, Patrizia Ballerini, Paola Patrignani (Chieti)

TOXICOLOGY III/PHARMACOLOGY OF DIGESTIVE SYSTEM (TOTEM 13)

Chairperson: **Matteo Fornai** (Pisa)

- P283** AMPA receptor-mediated neurotoxicity in an *in vitro* model of ethanol dependence and withdrawal
Elisabetta Gerace¹, Daniele Lana¹, Daniela Iezzi¹, Lucia Caffino², Daniela Buonvicino¹, Alice Ilari³, Alessio Masi³, Carmen Carbone¹, Maria Grazia Giovannini¹, Fabio Fumagalli², Domenico E. Pellegrini-Giampietro¹, Guido Mannaioni¹ (¹Florence, ²Milan, ³Camerino)
- P284** Co-mutagenic and pro-oxidant effects of Vitamin E promotes DNA damage and cell transformation in prostate
Fabio Vivarelli¹, Donatella Canistro¹, Silvia Cirillo¹, Alessio Papi¹, Enzo Spisni¹, Andrea Vornoli¹, Clara Maria Della Croce², Vincenzo Longo², Paola Franchi¹, Sandra Filippi¹, Marco Lucarini¹, Cristina Zanzi¹, Francesca Rotondo¹, Antonello Lorenzini¹, Silvia Marchionni¹, Moreno Paolini¹ (¹Bologna, ²Pisa)
- P285** Environmental and biological monitoring of formaldehyde inside a hospital setting: a combined approach for risk assessment evaluation and management
Bruno Charlier, Albino Coglianese, Oriana Motta, Franco De Caro, Viviana Izzo, Fabrizio Dal Piaz, Amelia Filippelli (Salerno)
- P286** Enteric glia activation by HIV-1 Tat-induced diarrhea drives a glial inflammatory reaction to the central nervous system associated with a significant cognitive decline
Luisa Seguela¹, Mirella Pesce¹, Riccardo Capuano¹, Giovanni Sarnelli², Marcella Pesce², Giuseppe Esposito¹ (¹Rome, ²Naples)
- P287** Role of adenosine A_{2B} receptors in the modulation of enteric glial cell activity in a model of obesity
Vanessa D'Antongiovanni¹, Matteo Fornai¹, Carolina Pellegrini¹, Laura Benvenuti¹, Alma Di Carlo¹, Valentina Caputi², Maria Cecilia Giron², Nunzia Bernardini¹, Chiara Ippolito¹, Cristina Segnani¹, Rocchina Colucci², Corrado Blandizzi¹, Luca Antonioli¹ (¹Pisa, ²Padua)
- P288** Role of enteric glia in the development of intestinal dysmotility associated with high fat diet in mice
Laura Benvenuti¹, Luca Antonioli¹, Rocchina Colucci², Carolina Pellegrini¹, Vanessa D'Antongiovanni¹, Alma Di Carlo¹, Valentina Caputi², Maria Cecilia Giron², Corrado Blandizzi¹, Matteo Fornai¹ (¹Pisa, ²Padua)
- P289** Colonic mucosal levels of μ -opioid receptor, β -endorphin and cannabinoid receptor-2 are increased in irritable bowel syndrome
Giovanni Dothel¹, Wendy Shih², Maria Raffaella Barbaro¹, Cesare Cremon¹, Vincenzo Stanghellini¹, Fabrizio De Ponti¹, Emeran Anton Mayer², Lin Chang², Giovanni Barbara¹, Catia Sternini² (¹Bologna, ²Los Angeles - USA)

- P290** Hyaluronan involvement in neuromuscular adaptation to intestinal ischemia/reperfusion injury
Michela Bistoletti¹, Ilaria Caon¹, Annalisa Bosi¹, Elisabetta Moro², Manuela Viola¹, Andreina Baj¹, Davide Vigetti¹, Francesca Crema², Alberto Passi¹, Cristina Giaroni¹ (¹Varese, ²Pavia)

TOXICOLOGY IV (TOTEM 14)

Chairperson: **Marco Pelin** (Trieste)

- P291** Neurotoxicity of high doses intrathecal baclofen in a pediatric patient
Giulia Scaravaggi¹, Azzurra Schicchi¹, Davide Lonati¹, Marco Cirronis¹, Francesca Maida¹, Sara Olivotto², Silvia Masnada², Rossella Gottardo³, Nadia M. Porpiglia³, Franco Tagliaro³, Eleonora Buscaglia¹, Carlo A. Locatelli¹ (¹Pavia, ²Milan, ³Verona)
- P292** Oxycodone abuse during pain-relief prescription: an unusual but important cause
Marco Cirronis, Davide Lonati, Elena Brambilla, Azzurra Schicchi, Giulia Scaravaggi, Marta Crevani, Piero Papa (Pavia)
- P293** Zidovudine overdose due to therapeutic error in newborn
Eleonora Buscaglia, Maria Di Primo¹, Giulia Scaravaggi¹, Azzurra Schicchi¹, Valeria M. Petrolini¹, Marco Cirronis¹, Marta Crevani¹, Francesca Maida¹, Giuseppe Bruglieri², Carlo A. Locatelli¹ (¹Pavia, ²Pesaro)
- P294** Mitomycin C adverse reaction after intravesical instillation
Francesca Maida, Valeria M. Petrolini, Marco Cirronis, Elena Brambilla, Eleonora Buscaglia, Maria Di Primo, Marta Crevani, Carlo A. Locatelli (Pavia)
- P295** Acute effects in mice of synthetic cannabinoids (JWH-018 / 5F-PB-22) on neuronal electrophysiological responses
Mario Barbieri¹, Sabine Bilel¹, Micaela Tirri¹, Raffaella Arfè², Giovanni Serpelloni³, Margherita Neri¹, Matteo Marti¹ (¹Ferrara, ²Rome, ³Verona)
- P296** Histopathologic changes in liver and small intestine induced by ketorolac and ketogal repeated oral treatment in mice
Carmen De Caro¹, Roberto Russo², Monica Tizzano², Salvatore Magliocca³, Carmen Avagliano², Claudia Cristiano², Giovanna La Rana², Bice Avallone², Federica Sodano⁴, Stefania Albrizio², Antonio Calignano², Maria Grazia Rimoli² (¹Catanzaro, ²Naples, ³Padua, ⁴Turin)

ETHICS AND SUSTAINABILITY/CHEMOTHERAPY AND VACCINES (TOTEM 1)

Chairperson: **Stefania Nobili** (Florence)

P297 Appropriateness of access to innovative drugs in non-small cell lung cancer (NSCLC): the FOIFVG (Innovative Oncology Drugs Friuli Venezia Giulia) project
Marilena Marinelli¹, Chiara Zanusso¹, Lucia Scarabel¹, Alessandra Bearz¹, Alessandro Del Conte¹, Michele Spina¹, Francesco Mazza², Paolo Schincariol³, Paolo Sandri⁴, Mariagrazia Michieli¹, Marina Tosolini⁵, Stefano Visintin⁶, Maria Grazia Troncon⁷, Barbara Basso², Chiara D'Orlando⁵, Germana Modesti⁷, Michela Guardascione¹, Valentina Solfrini⁸, Giuseppe Toffoli¹ (¹Aviano, ²Pordenone, ³Trieste, ⁴San Vito al Tagliamento, ⁵Tolmezzo, ⁶Gorizia, ⁷Udine, ⁸Bologna)

P298 Use and expenditure of biological medicines at the University Hospital of Catania
Daniela Cristina Vitale, Lucia Gozzo, Laura Longo, Filippo Drago (Catania)

P299 Ampicillin for the treatment of the early-onset neonatal infections: a pharmacometric assessment by stochastic simulations
Arianna Carolina Rosa, Elisa Benetti, Gianluca Miglio (Turin)

P300 Effect of theranostic phospholipidic SrCl₂/SrI₂ and β-D-fructopyranose based nanoparticles on cell viability and uptake
Valentina Boscaro, Domenica Marabello, Paola Antoniotti, Paola Benzi, Alessandro Barge, Fabio Beccari, Carlo Canepa, Elena Peira, Margherita Gallicchio (Turin)

P301 Effect of cetuximab-5-fluorouracil conjugates on the proliferation of colorectal cancer cells
Valentina Boscaro, Mirko Sacco, Pietro Aprà, Federico Piccolo, Alessandro Barge, Margherita Gallicchio (Turin)

P302 Effects of new hydroxyazoles inhibitors of AKR1C3 on vitality of prostate and colorectal cancer cell lines
Valentina Boscaro, Donatella Boschi, Simonetta Oliaro-Bosso, Martina Daga, Marco Lolli, Agnese Chiara Pippione, Margherita Gallicchio (Turin)

MISCELLANEOUS I (TOTEM 2)

Chairperson: **Luca Gallelli** (Catanzaro)

P303 Effectiveness of RF22c, a selective 5-LO inhibitor, in pulmonary arterial hypertension treatment and innovative optimization of its delivery
Renata Esposito¹, Angela Liparulo¹, Giuseppe Spaziano¹, Nello Giugliano¹, A.C. Muñoz Ramirez², Annalisa Capuano¹, Rosanna Filosa¹, Carmelo Puglia³, Bruno D'Agostino¹ (¹Naples, ²Santiago de Chile - Chile, ³Catania)

P304 Food addiction: a new form of dependence?
Walter Milano¹, Anna Capasso² (¹Naples, ²Salerno)

- P305** Calcium mobilization and fibroblast proliferation: a platform to screen anti-fibrotic compounds in primary human fibroblasts
Francesca Muraroli, Prisca Martinelli, Rosaria Remelli, Martina Antolin (Verona)
- P306** Effects of Hexarelin in a model of ARDS
Laura Rizzi¹, Vanessa Zambelli¹, Laura Molteni¹, Paolo Delvecchio¹, Elena Bresciani¹, Ramona Meanti¹, J.A. Fehrentz², J. Martinez², Giacomo Bellani¹, Vittorio Locatelli¹, Antonio Torsello¹ (¹Milan, ²Montpellier - France)
- P307** A possible interaction between glucocorticoid-induced leucine zipper and histamine H₄ receptor in counteracting pulmonary fibrosis in a bleomycin-induced mouse model
Silvia Sgambellone¹, Laura Lucarini¹, Mariaconcetta Durante¹, Daniele Innocenti¹, Alessandro Pini¹, Stefano Bruscoli², Sara Flamini², Carlo Riccardi², Emanuela Masini¹ (¹Florence, ²Perugia)
- P308** Angiotensin-II drives human satellite cells toward hypertrophy and myofibroblast trans-differentiation by two independent pathways: a basis to support the use of renin angiotensin system blockers in skeletal muscle wasting and fibrosis
Valentina Balducci, Manuela Gencarelli, Annunziatina Laurino, Costanza Mazzantini, Valentina Spinelli, Marco Ghionzoli, Alessandro Messineo, Alessandro Mugelli, Elisabetta Cerbai, Laura Raimondi, Laura Sartiani (Florence)
- INNOVATION AND MEDICAL DEVICES (TOTEM 3)**
Chairperson: **Domenico Tricarico** (Bari)
- P309** PharmacoloGenius: development of a mobile application to engage in pharmacology
Claudia Pisanu, Gianpaolo Zammarchi (Cagliari)
- P310** FARMAPRICE: development of a pharmacogenetic clinical decision support system and preliminary evaluation of its feasibility and usability in the clinical practice
Rossana Roncato¹, Lisa Dal Cin¹, Silvia Mezzalana¹, Francesco Comello¹, Elena De Mattia¹, Lorenzo Giollo², Simone D'Errico², Antonio Gulotta², Luca Emili³, Vincenzo Carbone³, Michela Guardascione¹, Luisa Foltran¹, Giuseppe Toffoli¹, Erika Cecchin¹ (¹Aviano, ²Trento, ³Trieste)
- P311** Management of transport of sanitary materials and drugs by means without pilot (drones)
Fabrizio Niglio (Pontedera)

P312 The signalling pathways triggered by pulsed electromagnetic fields in the relief of hypoxia-induced neuronal cell death
Stefania Gessi¹, Stefania Merighi¹, Enrica Battistello¹, Luca Giacomelli¹, Fabrizio Vincenzi¹, Stefania Setti², Matteo Cadossi², Pier Andrea Borea¹, Ruggero Cadossi², Katia Varani² (¹Ferrara, ²Carpi)

P313 Characterization of signaling pathways enrolled by pulsed electromagnetic fields to produce anti-inflammatory effects in microglial cells
Stefania Merighi¹, Stefania Gessi¹, Enrica Battistello¹, Luca Giacomelli¹, Fabrizio Vincenzi¹, Stefania Setti², Matteo Cadossi², Pier Andrea Borea¹, Ruggero Cadossi², Katia Varani¹ (¹Ferrara, ²Carpi)

P314 Efficacy of a medical device containing xyloglucan on a mouse model of allergic rhinitis
Emanuela Esposito, Giovanna Casili, Marika Lanza, Michela Campolo, Alessia Filippone, Irene Paterniti, Salvatore Cuzzocrea (Messina)

ONCOLOGICAL PHARMACOLOGY I (TOTEM 4)

Chairperson: **Lucia Morbidelli** (Siena)

P315 Synergistic effect of lenvatinib and vinorelbine combination in anaplastic thyroid cancer
Daniela Gentile, Paola Orlandi, Teresa Di Desidero, Guido Bocci, Marta Banchi (Pisa)

P316 Melanocortin receptor-4, a new therapeutic target of melanoma cells
Paola Orlandi¹, Daniela Gentile¹, Teresa Di Desidero¹, Francesca Vaglini¹, Carla Pardini¹, Cristina Viaggi¹, Marta Banchi¹, Federico Cucchiara¹, Alessandra Ottani², Daniela Giuliani², Michele Lai¹, Stefano Aringhieri¹, Marco Carli¹, Shiva Kolachalam¹, Salvatore Guarini², Mauro Pistello¹, Marco Scarselli¹, Guido Bocci¹ (¹Pisa, ²Modena)

P317 Angiogenesis-related circulating biomarkers and benefit from second-line treatment with paclitaxel and ramucirumab in advanced gastric cancer
Guido Bocci, Gianna Musettini, Paola Orlandi, Irene Pecora, Teresa Di Desidero, Daniela Gentile, Caterina Vivaldi, Marta Banchi, Giulia Pasquini, Federico Cucchiara, Francesca Salani, Silvia Catanese, Monica Lencioni, Alfredo Falcone (Pisa)

P318 Effect of pazopanib monotherapy versus combination with topotecan in anaplastic thyroid cancer
Daniela Gentile, Paola Orlandi, Marta Banchi, Teresa Di Desidero, Guido Bocci (Pisa)

P319 Melanocortin receptor 4 activity in melanoma cells: mechanism of action of the selective inhibitor ML00253764
Stefano Aringhieri, Marco Carli, Shiva Kolachalam, Francesca Vaglini, Carla Pardini, Cristina Viaggi, Paola Orlandi, Daniela Gentile, Federico Cucchiara, Guido Bocci, Marco Scarselli (Pisa)

- P320** Precision therapy for pediatric BCR-ABL-like acute lymphoblastic leukemia with activation of the ABL pathway: development of an *In vitro* system for diagnosis and clinical monitoring
Oksana Montecchini¹, Raffaella Franca¹, Claudio Sorio², Marzia Vezzalini², Marianna Lucafò³, Marco Rabusin¹, Giuliana Decorti¹, Gabriele Stocco¹
 (¹Trieste, ²Verona, ³Aviano)

ONCOLOGICAL PHARMACOLOGY II (TOTEM 5)

Chairperson: **Sandra Donnini** (Siena)

- P321** Graphene quantum dots conjugated with bortezomib analogues improve drug delivery and efficacy in an *in vitro* model of multiple myeloma
Alessandra Bitto, Federica Mannino, Giovanni Pallio, Natasha Irrera, Irene Gasparo, Robera Ettari, Salvatore Giofrè, Daniela Iannazzo, Alessandro Pistone, Alessandro Allegra, Domenica Altavilla, Francesco Squadrito (Messina)
- P322** Cold atmospheric plasma as an innovative anticancer strategy: insight into its cellular and molecular impact on leukemia models
Eleonora Turrini¹, Emanuele Simoncelli², Romolo Laurita², Augusto Stancampiano², Elena Catanzaro¹, Cinzia Calcabrini¹, Giovanni Carulli³, Martina Rousseau³, Matteo Gherardi², Francesca Maffei¹, Veronica Cocchi², Monia Lenzi², Valentina Pellicioni¹, Patrizia Hrelia², Vittorio Colombo², Carmela Fimognari¹ (¹Rimini, ²Bologna, ³Pisa)
- P323** Nanoemulsion based chemotherapy for melanoma
Benedetta Ferrara¹, Luigi Battaglia², Chiara Monge², Loredana Serpe², Katia Martina², Silvia Mioletti², Nausicaa Clemente³, Chiara Dianzani² (¹Creteil - France, ²Turin, ³Novara)
- P324** *In vitro* effects of Berberine on pediatric low grade astrocytoma cells: a pilot study toward preclinical evaluations
Fabio Gabriele, Carolina Martinelli, Giorgia Bresciani, Vanessa Pipoli, Sergio Comincini (Pavia)
- P325** Antitumor effects of curcumin analogs in triple negative breast cancer (TNBC) cell lines
Paola Poma¹, Monica Notarbartolo¹, Anna Barattucci², Tania Salerno², Paola Maria Bonaccorsi², Manuela Labbozzetta¹ (¹Palermo, ²Messina)
- P326** EphB1 receptor as target to develop innovative therapeutics to counteract glioblastoma cell proliferation and migration
Stefano Pezzini, Andrea Bedini, Santi Spampinato (Bologna)

NEUROPHARMACOLOGY X (TOTEM 6)

Chairperson: **Sara Merlo** (Catania)

- P327** Effect of *Lactobacillus farciminis* supplementation in preventing LPS-induced hippocampal neuroinflammation, in mice
Carla Petrella¹, **Georgios Strimpakos¹**, **Francesca de Santa¹**, **Marco Fiore¹**, **Stefano Farioli Vecchioli¹**, **Diego Mora²**, **Stefania Arioli²** (¹Rome, ²Milan)
- P328** Intestinal inflammation increases convulsant activity and reduces antiepileptic drug efficacy in a mouse model of epilepsy
Carmen De Caro¹, **Luigi Francesco Iannone¹**, **Valentina Nesci¹**, **Paolo Mainardi²**, **Martina Tallarico¹**, **Giovambattista De Sarro¹**, **Emilio Russo¹**, **Rita Citraro¹** (¹Catanzaro, ²Genoa)
- P330** Gut-brain axis: fecal microbiota transplantation decreases spontaneous spike-wave discharges in WAG/Rij rats, a model of absence epilepsy
Martina Tallarico¹, **Rita Citraro¹**, **Carmen De Caro¹**, **Antonio Leo¹**, **Antonio Calignano²**, **Giovambattista De Sarro¹**, **Emilio Russo¹** (¹Catanzaro, ²Naples)
- P331** Targeting sphingosine 1-phosphate receptors in autism spectrum disorders: focus on gut and brain
Rosa Luisa Potenza, **Monica Boirivant**, **Roberta De Simone**, **Monica Armida**, **Alessia Butera**, **Antonella Pezzola**, **Laura Ricceri** (Rome)
- P332** Release-regulating sphingosine-1-phosphate receptors in nerve endings and glial particles of mice central nervous system
Alessandra Roggeri, **Matteo Vergassola**, **Francesca Cisani**, **Guendalina Olivero**, **Francesco Minetti**, **Anna Pittaluga** (Genoa)

NEUROPHARMACOLOGY XI (TOTEM 7)

Chairperson: **Filippo Caraci** (Catania)

- P333** Effect of non-psychotropic *Cannabis sativa* L. extract on LPS-induced microglial response
Giovanna Rigillo¹, **Vittoria Borgonetti²**, **Cristina Benatti¹**, **Paolo Governa³**, **Fabio Tascadda¹**, **Marco Biagi³** (¹Modena, ²Florence, ³Siena)
- P334** Peripubertal cannabidiol treatment counteracts behavioral and molecular alterations induced by perinatal delta-9-tetrahydrocannabinol exposure
Samuele Laudani¹, **Tibor Stark²**, **Fabio A. Iannotti³**, **Oriana Maurel¹**, **Giovanni Giurdanella¹**, **Martina Di Bartolomeo⁴**, **Martin Kuchar⁵**, **Claudio D'Addario⁴**, **Salvatore Salomone¹**, **Raphael Mechoulam⁶**, **Filippo Drago¹**, **Alexandra Sulcova²**, **Vincenzo Di Marzo³**, **Vincenzo Micale¹** (¹Catania, ²Brno - Czech Republic, ³Naples, ⁴Teramo, ⁵Klecaný - Czech Republic, ⁶Jerusalem - Israel)
- P335** Impact of endocannabinoid system modulation on adolescent brain maturation
Cristina Manenti¹, **Pamela Prini¹**, **Daniela Parolaro²**, **Tiziana Rubino¹** (¹Varese, ²Milan)

P336 Preclinical and clinical evidence for a distinct regulation of mu opioid and type 1 cannabinoid receptor genes expression in obesity
Claudio D'Addario¹, Maria Vittoria Micioni Di Bonaventura², Mariangela Pucci¹, Valeria Vezzoli³, Elizabeta Zaplatic¹, Marcella Massimini¹, Stefania Mai³, Alessandro Sartorio³, Emanuela Micioni Di Bonaventura², Massimo Scacchi³, Luca Persani³, Mauro Maccarrone⁴, Carlo Cifani² (¹Teramo, ²Camerino, ³Milan, ⁴Rome)

P337 Long exposure to high palatable food on pain sensitivity: role of cannabinergic system
Carmen Avagliano¹, Maria Vittoria Micioni Di Bonaventura², Maria Elena Giusepponi², Carmen De Caro¹, Claudia Cristiano¹, Giovanna La Rana¹, Adele Romano³, Antonio Calignano¹, Silvana Gaetani³, Roberto Russo¹, Carlo Cifani² (¹Naples, ²Camerino, ³Rome)

P338 Role of the basolateral amygdala in the hippocampal endocannabinoid modulation of fear memory retrieval in rats
Alessia Santori¹, Patrizia Ratano¹, Krista L. Wahlstrom², Ryan T. LaLumiere², Patrizia Campolongo¹ (¹Rome, ²Iowa City - USA)

NEUROPHARMACOLOGY XII (TOTEM 8)

Chairperson: Maria Vittoria Micioni Di Bonaventura (Camerino)

P339 Fluoxetine as a precision medicine approach in epileptic encephalopathies caused by gain-of-function mutations in KCNC1 channels
Paolo Ambrosino¹, Maria Virginia Soldovieri², Ilaria Mosca², Francesca Ragona³, Tiziana Granata³, Cinzia Gellera³, Jacopo Di Francesco³, Barbara Castellotti³, Lorella Maria Teresa Canzoniero¹, Maurizio Tagliatela⁴ (¹Benvento, ²Campobasso, ³Milan, ⁴Naples)

P340 Kv7 activators as targeted therapies for epileptic encephalopathy caused by Kv7.2 mutations
Ilaria Mosca¹, Maria Virginia Soldovieri¹, Paolo Ambrosino², Elena Freri³, Barbara Castellotti³, Cinzia Gellera³, Jacopo Di Francesco³, Gaetan Lesca⁴, Maurizio Tagliatela⁵ (¹Campobasso, ²Benevento, ³Milan, ⁴Lyon - France, ⁵Naples)

P341 Cognitive impairment in the Wistar Albino Glaxo/Rij-rat (WAG/Rij) absence model is secondary to absence seizures and depressive-like behavior
Antonio Leo, Martina Tallarico, Luigi Francesco Iannone, Carmen De Caro, Rita Citraro, Emilio Russo, Giovambattista De Sarro (Catanzaro)

P342 Metabolic alterations predispose to epilepsy in High Fat Diet treated mice
Valentina Nesci, Biagio Arcidiacono, Rita Citraro, Antonio Leo, Emilio Russo, Antonio Brunetti, Giovambattista De Sarro (Catanzaro)

P343 Perampanel is effective as add-on therapy in drug-resistant temporal lobe epilepsy with or without hippocampal sclerosis
Luigi Francesco Iannone, Angelo Labate, Edoardo Ferlazzo, Roberta Roberti, Antonio Gambardella, Umberto Aguglia, Giovambattista De Sarro, Emilio Russo (Catanzaro)

P344 Molecular and functional consequences of a novel variant in the KCNQ3 gene found in a proband with neonatal-onset seizures and non-syndromic intellectual disability
Anna Lauritano¹, Sebastien Moutton², Elena Longobardi¹, Frédéric Tran-Mau-Them², Giusy Laudati¹, Mario Nappi¹, Piera Nappi¹, Maria Virginia Soldovieri³, Paolo Ambrosino⁴, Mauro Cataldi¹, Thibaud Jouan², Daphné Lehalle², Hélène Maurey⁵, Christophe Philippe², Francesco Miceli¹, Antonio Vitobello², Maurizio Tagliatalata¹ (¹Naples, ²Dijon - France, ³Campobasso, ⁴Benevento, ⁵Le Kremlin-Bicêtre - France)

NEUROPHARMACOLOGY XIII (TOTEM 9)

Chairperson: **Gian Marco Leggio** (Catania)

P345 Investigating the modulatory activity of the novel drug SEP-363856 in the phencyclidine model of schizophrenia
Alice Sanson¹, Veronica Begni¹, Ben Grayson², Joanna Neill², Marco Andrea Riva¹ (¹Milan, ²Manchester - United Kingdom)

P346 Pharmacokinetics of paliperidone in patients with schizophrenia: comparison between oral and long-acting injection formulations
Vincenza Santoro¹, Edoardo Spina¹, Antonio Bruno¹, Sara Baldelli², Emilio Clementi², Dario Cattaneo² (¹Messina, ²Milan)

P347 MDMA exposure induces BDNF and HDAC I alterations: possible correlation with later neuropsychiatric disorders
Serena Stamatakis, Francesca Felicia Caputi, Laura Rullo, Sanzio Candeletti, Patrizia Romualdi (Bologna)

P348 Role of maternal immune activation in neurodevelopmental disorders and possible pharmacological treatment
Francesca Arià, Andrea Mastinu, Giuseppina Maccarinelli, Marika Premoli, Maurizio Memo, Sara Anna Bonini (Brescia)

P349 *In vivo* electrophysiological and microdialysis study of dopamine transporter inhibitors R-modafinil and its analogue CE-123
Claudia Sagheddu¹, Nicholas Pintori¹, Gessica Piras¹, Predrag Kalaba², Vladimir Dragačević², Jana Aradska³, Maria Antonietta De Luca¹, Gert Lubec¹, Marco Pistis¹ (¹Cagliari, ²Vienna - Austria, ³Salzburg - Austria)

P350 Irisin levels in fast and slow twitch muscles are differently modified in socially isolated rats
Giulia Maria Camerino¹, Elena Conte¹, Maria Grazia Morgese², Stefania Schiavone², Luigia Trabace² (¹Bari, ²Foggia)

PHARMACOEPIDEMIOLOGY AND PHARMACOECONOMY II (TOTEM 10)

Chairperson: **Vincenzo Arcoraci** (Messina)

- P351** How have intravitreal anti-VEGF and dexamethasone implant been used in Italy? A multi-regional, population-based study in 2010-2016
Giulia Scondotto¹, Janet Sultana¹, Valentina Ientile¹, Ylenia Ingrasciotta¹, Andrea Fontana², Eliana Mirabelli¹, Costantino Jonh Trombetta¹, Carlo Rapisarda³, Teresio Avitabile³, Antonio Longo³, Patricia Ibanez Toro⁴, Maria Vadala⁵, Salvatore Cillino⁵, Gianni Virgili⁶, Rosa Gini⁶, Olivia Leoni⁷, Sebastiano Walter Pollina Addario⁵, Pasquale Cananzi¹, Claudia La Cavera¹, Maria Rosalia Puzo⁴, Giovambattista De Sarro⁸, Adele De Francesco⁸, Gianluca Trifirò¹ (¹Messina, ²San Giovanni Rotondo, ³Catania, ⁴Potenza, ⁵Palermo, ⁶Florence, ⁷Milan, ⁸Catanzaro)
- P352** High risk of cardiovascular events in general practice: a focus on patients' management in Sicily
Michelangelo Rottura, Maria Antonietta Barbieri, Giuseppe Cicala, Sebastiano Marino, Francesco Squadrito, Vincenzo Arcoraci (Messina) **P353**
- P353** Intravitreal anti-vascular endothelial growth factor drugs and risk of serious non-ocular bleeding
Janet Sultana¹, Francesco Giorgianni¹, Giulia Scondotto¹, Valentina Ientile¹, Pasquale Cananzi², Olivia Leoni³, Sebastiano Pollina Addario², Giovanbattista De Sarro⁴, Adele De Francesco⁴, Maria Rosalia Puzo⁵, Christel Renoux⁶, Gianluca Trifirò¹ (¹Messina, ²Palermo, ³Milan, ⁴Catanzaro, ⁵Potenza, ⁶Montreal - Canada)
- P354** Pattern of use and safety profile of branded vs generic antiepileptic drugs
Sabrina Giometto^{1,2}, Rosa Gini², Eleonora Cei², Laura Baglietto¹, Alfredo Vannacci², Alessandra Bettiol², Marco Tuccori¹, Alessandro Mugelli², Ersilia Lucenteforte¹ (¹Pisa, ²Florence)
- P355** Gender differences in the management of chronic obstructive pulmonary disease: effect of a clinical audit in a Sicilian general practice setting
Valentina Isgrò¹, Janet Sultana¹, Valentina Ientile¹, Andrea Fontana², Umberto Alecci¹, Riccardo Scoglio¹, Francesco Magliozzo¹, Gianluca Trifirò¹ (¹Messina, ²Foggia)
- P356** Antibiotic prescribing in Internal Medicine Units of an Italian tertiary care hospital: an observational study
Pietro Nunnari, Fabrizio Colombo, Giovanni Ceccarelli, Angelo Valerio Romano, Francesco Scaglione (Milan)

PERSONALIZED MEDICINE II (TOTEM 11)

Chairperson: **Jean- François Desaphy** (Bari)

- P357** Is a pro-active TDM-based approach for personalizing linezolid therapy useful in reducing the risk of thrombocytopenia in adult patients requiring long-lasting treatment?

Pier Giorgio Cojutti, Maria Merelli, Matteo Bassetti, Massimo Baraldo, Federico Pea (Udine)

- P358** PREemptive pharmacogenomic testing for Preventing Adverse drug Reactions (PREPARE): state of art and preliminary results on genotype actionability
Francesco Comello¹, Lisa Dal Cin¹, Alessia Bignucolo¹, Silvia Mezzalana¹, Rossana Roncato¹, Tania Di Raimo¹, Francesco Angelini¹, Viola Cappato¹, Franca Sartor¹, Luisa Foltran¹, Massimiliano Berretta¹, Antonio Di Paoli¹, Michela Guardascione¹, Fabio Puglisi¹, Adolfo Favaretto², Mario D'Andrea³, Erika Cecchin¹, Giuseppe Toffoli¹ (¹Aviano, ²Treviso, ³Rome)

- P359** AR-V7 and AR-FL expression is associated with clinical outcome: a translational study in patients with castrate resistant prostate cancer

Stefania Crucitta¹, Marzia Del Re¹, Andrea Sbrana¹, Eleonora Rofi¹, Federico Paolieri¹, Luca Galli¹, Alfredo Falcone¹, Riccardo Morganti¹, Camillo Porta², Eleni Efsthathiou³, Ron van Schaik⁴, Guido Jenster⁴, Romano Danesi¹ (¹Pisa, ²Pavia, ³Houston - USA, ⁴Rotterdam - The Netherlands)

- P360** Pharmacogenetics profiling of transplanted patients taking tacrolimus reveals that allelic mutations have a strong correlation with altered plasma levels
Giovanni Pallio, Alessandra Bitto, Letteria Minutoli, Natasha Irrera, Federica Mannino, Domenica Altavilla, Vincenzo Arcoraci, Michelangelo Rottura, Francesco Squadrito (Messina)

- P361** Factors influencing the antiplatelet therapy in patients requiring vascular surgery

Carmine Sellitto (Salerno)

- P362** Application of therapeutic drug monitoring in pediatric intensive care unit: a case report

R. Simeoli, M. Marano, E. Agolini, D. Cocciadiferro, M. Dionisi, S. Cairolì, M. Tarchi, V. Ventura, B.M. Goffredo (Rome)

MISCELLANEOUS II (TOTEM 12)

Chairperson: **Giuseppina Mattace Raso** (Naples)

- P363** Potassium channels as pharmacological target for the treatment of Congenital Central Hypoventilation Syndrome
Silvia Cardani, Simona Di Lascio, Lara Pizzamiglio, Flavia Antonucci, Roberta Benfante, Diego Fornasari (Milan)

P365 Alcohol consumption during pregnancy induces altered transcriptional regulation in mothers and offspring partially counteracted by environment enrichment
Fabio Bellia¹, Aranza Wille-Bille², Mariangela Pucci¹, Sebastian Miranda-Morales², Ricardo Marcos Pautassi², Claudio D'Addario¹ (¹Teramo, ²Córdoba - Argentina)

P366 Resveratrol treatment reduces the vulnerability of SH-SY5Y cells and cortical neurons overexpressing SOD1-G93A to Thimerosal toxicity through SIRT1/DREAM/PDYN pathway
Giusy Laudati¹, Luigi Mascolo¹, Natascia Guida¹, Rossana Sirabella¹, Vincenzo Pizzorusso¹, Sara Bruzzaniti¹, Angelo Serani¹, Gianfranco Di Renzo¹, Lorella M.T. Canzoniero², Luigi Formisano¹ (¹Naples, ²Benevento)

P367 *Herpes zoster* among patients at risk: epidemiology, healthcare resources utilization and costs from a large Italian real-world database
Silvia Calabria¹, Giulia Ronconi¹, Letizia Dondi¹, Carlo Piccinni¹, Antonella Pedrini¹, Immacolata Esposito², Pierluigi Viale³, Nello Martini¹ (¹Casalecchio di Reno, ²Rome, ³Bologna)

P368 HR+/HER2- metastatic breast cancer in a large Italian database: incidence, prescription patterns, disease progression and direct costs
Carlo Piccinni¹, Giulia Ronconi¹, Silvia Calabria¹, Letizia Dondi¹, Antonella Pedrini¹, Immacolata Esposito², Nello Martini¹, Maurizio Marangolo¹ (¹Casalecchio di Reno, ²Rome)

REAL-WORLD EVIDENCE (TOTEM 13)

Chairperson: **Carmen Ferrajolo** (Naples)

P369 Re-use of routinely collected electronic healthcare data for the execution of real-world studies on the utilization of target and immunotherapies in lung cancer patients: a systematic review
Andrea Spini¹, Giulia Hyeraci², Francesco Pellicano¹, Sandra Donnini¹, Silvano Giorgi¹, Claudia Bartolini², Rosa Gini², Marina Ziche¹, Giuseppe Roberto² (¹Siena, ²Florence)

P370 Drug-utilization pattern of non small cell lung cancer patients analyzed by gender at University Hospital of Siena, Italy (UHS)
Pietro Rosellini¹, Andrea Spini¹, Giuseppe Roberto², Rosa Gini², Valerio Ciccone¹, Edoardo Francini³, Alessandra Pascucci¹, Sandra Donnini¹, Marina Ziche¹ (¹Siena, ²Florence, ³Grosseto)

P371 Prevalence of statin-associated muscle symptoms in Italy: the PROSISA study
Federica Bonaiti¹, Manuela Casula¹, Marta Gazzotti¹, Elena Olmastroni¹, Liliana Grigore², Alberico Luigi Catapano¹ (¹Milan, ²Sesto S. Giovanni)

P372 Switching from infliximab-originator to infliximab-biosimilar in rheumatologic patients: the clinical impact in Tuscan Region
Irma Convertino¹, Ersilia Lucenteforte¹, Marta Mosca¹, Giuseppe Turchetti¹, Valentina Lorenzoni¹, Leopoldo Trieste¹, Sara Ferraro¹, Luca Leonardi¹, Giuseppe Roberto², Nicoletta Luciano¹, Corrado Blandizzi¹, Rosa Gini², Marco Tuccori¹ (¹Pisa, ²Florence)

P373 Real World Data on the utilization pattern and safety profile of infliximab originator versus biosimilars in Italy: a multiregional study
Federica Fraenza¹, Cristina Scavone¹, Maurizio Sessa¹, Emilio Clementi², Giovanni Corrao², Roberto Leone³, Alessandro Mugelli⁴, Francesco Rossi¹, Edoardo Spina⁵, Annalisa Capuano¹ (¹Naples, ²Milan, ³Verona, ⁴Florence, ⁵Messina)

P374 Sex differences in factors associated with adherence to statin therapy: a population-based study
Elena Olmastroni, Elena Tragni, Federico Rea, Luca Merlino, Giovanni Corrao, Alberico L. Catapano, Manuela Casula (Milan)

PHARMACOVIGILANCE VI (TOTEM 14)

Chairperson: **Alma Martelli** (Pisa)

P375 Immune-related adverse drug reactions associated to immune checkpoint inhibitors: data from the Italian spontaneous reporting system
Rosanna Ruggiero, Federica Fraenza, Mario Gaio, Alessia Zinzi, Anna Larato, Carmen Ferrajolo, Liberata Sportiello, Concetta Rafaniello, Liberato Berrino, Annalisa Capuano (Naples)

P376 Drugs-induced pathological gambling: an analysis of italian spontaneous reporting system
Barbara Stelitano, Cristina Scavone, Mario Gaio, Alessia Zinzi, Federica Fraenza, Anna Larato, Angela Falco, Concetta Rafaniello, Liberata Sportiello, Annalisa Capuano (Naples)

P377 Gender differences in outpatient pediatric drug utilization: a cohort study from Southern Italy
Alessia Zinzi¹, Carmen Ferrajolo¹, Janet Sultana², Valentina Ientile¹, Cristina Scavone¹, Giulia Scondotto², Michele Tari³, Gianluca Trifirò², Annalisa Capuano¹ (¹Naples, ²Messina, ³Caserta)

P378 Aripiprazole and risperidone in pediatric population, an update of safety issues and focus on off-label use: an analysis of the European pharmacovigilance database (EudraVigilance) from 2016 to 2018
Simona Brusco, Michele Bertini, Cristina Scavone, Carmen Ferrajolo, Liberata Sportiello, Maria Giuseppa Sullo, Eleonora Landolfi, Pasquale Maria Berrino, Annalisa Capuano, Concetta Rafaniello (Naples)

P379 Pharmacovigilance in SPA medicine
**Maria Costantino¹, Valeria Conti¹, Teresa Iannaccone¹, Francesco Marongiu²,
 Valentina Manzo¹, Mario Farroni¹, Amelia Filippelli¹** (¹Salerno, ²Naples)

P380 Causality and severity assessment of adverse events in paediatric clinical trials: a literature review of available tools
Mariagrazia Felisi¹, Cristina Manfredi¹, Louise Braken², Matthew Peak², Mark Turner², Adriaca Ceci³, Donato Bonifazi¹ (¹Pavia, ²Liverpool - United Kingdom, ³Valenzano)

BASIC AND CLINICAL RESEARCH VII (TOTEM 15)

Chairperson: **Sabata Pierno** (Bari)

P381 Glycyrrhizic Acid attenuates the cytotoxicity induced by high glucose in neuroblastoma cell line
Laura Ciarlo, Francesca Marzoli, Paola Minosi, Amalia Di Giannuario, Paola Matarrese, Stefano Pieretti (Rome)

P382 A new HPLC-UV method compared with HPLC-MS for daptomycin levels in human plasma samples
Giacomo Luci, Federico Cucchiara, Marianna Lastella, Laura Ciofi, Romano Danesi, Antonello Di Paolo (Pisa)

P383 Prevalence of familial hypercholesterolaemia (FH) in Italian Patients with coronary artery disease: the POSTER Study
Veronica Zampoleri¹, Andrea Baragetti¹, Marco Gorini², Gianna Fabbri², Andrea Lorimer², Donata Lucci², Michele Massimo Gulizia², Aldo Pietro Maggioni², Alberico Luigi Catapano¹ (¹Milan, ²Florence)

P384 Dietary supplementation with a peculiar amino acid formula sustains mitochondrial bioenergetics and reduces hepatic damage in a mouse model of non-alcoholic fatty liver disease
Emanuela Bottani¹, Agnese Segala¹, Silvia Marconi¹, Dario Brunetti², Fabio Rossi², Marika Vezzoli¹, Enzo Nisoli², Alessandra Valerio¹ (¹Brescia, ²Milan)

P385 A dried blood spot microsampling-liquid chromatography tandem mass spectrometry method for therapeutic drug monitoring of phenobarbital in newborns
Marine Pigeon, Maria Viviana Olimpia Fortunato, Antonio Di Donna, Maria Corbo, Amelia Filippelli, Viviana Izzo, Fabrizio Dal Piaz (Salerno)

- P386** Translational science to support paediatric clinical research - The European Paediatric Translational Research Infrastructure experience
Lucia Ruggieri¹, Donato Bonifazi², Annalisa Landi¹, Mariangela Lupo³, Antje Neubert⁴, Cristina Calvo⁵, Emmanuel Mikros⁶, Hana Kubova⁷, Marialuisa Lavitrano⁸, Marina Kleanthous⁹, Saskia de Wildt¹⁰, Tessa van der Geest¹⁰, Evelyne Jacqz-Aigrain¹¹, Catherine Tuleu¹², Nunzio Denora¹³, Mark Turner¹⁴, Paolo Rossi¹⁵, Giovanni Migliaccio², Adriana Ceci¹ (¹Valenzano, ²Bari, ³Pavia, ⁴Erlangen - Germany, ⁵Madrid - Spain, ⁶Marousi - Greece, ⁷Vídenská - Czech Republic, ⁸Graz - Austria, ⁹Nicosia - Cyprus, ¹⁰Nijmegen - Netherlands, ¹¹Paris - France, ¹²London - United Kingdom, ¹³Bari, ¹⁴Liverpool - United Kingdom, ¹⁵Rome)

SPONSORED SYMPOSIA AND LECTURES



AUDITORIUM



11.00 SPONSORED SYMPOSIUM BIOGEN
13.00 INNOVATIVE APPROACH TO NEUROSCIENCE RESEARCH: THE FUTURE IS NOW
Chairpersons: **Pier Luigi Canonico** (Novara), **Luca Pani** (Miami - USA)

11.00 Addressing unmet medical needs in neurological and neuromuscular disease
Chris Henderson (Cambridge - USA)

11.20 *In vivo* visualizing and targeting proteinopathies
Roberto Ceravolo (Pisa)

11.40 An antisense pathway for neuromuscular diseases
Ferdinando Nicoletti (Rome)

12.00 ROUND TABLE
MULTIPLE TARGETS FOR THE SAME DISEASE: WHAT PERSPECTIVES FOR RESEARCH IN ITALY?
Chairpersons: **Pier Luigi Canonico** (Novara), **Luca Pani** (Miami - USA)

Participants

Roberto Ceravolo (Pisa)
Chris Henderson (Cambridge - USA)
Ferdinando Nicoletti (Rome)
Giorgio Racagni (Milan)
Gioacchino Tedeschi (Naples)

15.00 SPONSORED LECTURE ASTRAZENECA
15.30



Introduced by: **Francesco Rossi** (Naples)

Hyperkalemia: risk factors, clinical burden and new therapeutic opportunities
Filippo Aucella (Foggia)

SALA ONICE



12.00 SPONSORED SYMPOSIUM ADADVANCED ACCELERATOR APPLPLICATION
13.00 NEW FRONTIERS IN THE PRECISION MEDICINE: THE THERAGNOSTIC
Chairpersons: **Marzia Del Re** (Pisa), **Domenico Motola** (Bologna)

12.00 Place in therapy of the new theragnostic drugs: clinical pharmacology and tolerability issues
Marzia Del Re (Pisa)

12.15 The current therapeutic theragnostic approach in oncology: the point of view of nuclear medicine
Sergio Baldari (Messina)

12.30 The current therapeutic theragnostic approach in oncology: the point of view of the oncologist
Francesca Spada (Milan)

12.45 Perspectives of the theragnostic approach in oncology
Maurizio Mariani (Colleretto Giacosa)

NOVEMBER 21st, 2019

SALA LIMONAIA

11.30 SPONSORED SYMPOSIUM TAKEDA
12.30 NEW FRONTIERS OF IMMUNOMODULATORY STRATEGY
ADOPTED IN GASTROENTEROLOGY
Chairperson: **Corrado Blandizzi** (Pisa), **Giuseppe Cirino** (Naples)



11.30 The microbioma revolution
Michele Cicala (Rome)

12.00 Cell therapy: opportunities and clinical application
Rachele Ciccocioppo

12.30 SPONSORED LECTURE KYOWA KIRIN
13.00 Introduced by: **Renato Bernardini** (Catania)



Drug discovery of antibodies with potelligent technology
Takeshi Takahashi (Tokyo - Japan)

16.30 SPONSORED LECTURE GRUNENTHAL
17.00



Introduced by: **Paola Sacerdote** (Milan)

Capsaicin 8% patch in the treatment of peripheral neuropathic pain:
pharmacological rational
Diego Fornasari (Milan)



ALETTA 202

10.30 SPONSORED SYMPOSIUM A. MENARINI
11.30 CRITICAL PHARMACOLOGICAL INTERACTIONS IN ONCOLOGY
Chairperson: **Andrea Novelli** (Florence)

10.30 Antiviral therapies in oncological patients
Paolo Antonio Grossi (Varese)

10.50 Molecular mechanisms of pharmacological interactions in oncology
Enrico Mini (Florence)

11.10 Toxicological aspects: the view of the clinical pharmacologist
Guido Mannaioni (Florence)

11.30 SPONSORED SYMPOSIUM JAZZ PHARMA
12.30 SUSTAINABLE INCREMENTAL INNOVATION AND UNMET NEEDS IN THE TREATMENT OF ACUTE MIELOID LEUKEMIA
Chairpersons: **Carlo Cifani** (Camerino), **Giorgio Racagni** (Milan)



Jazz Pharmaceuticals

11.30 CPX-351: incremental innovation and clinical pharmacology
Lawrence Mayer (Vancouver - Canada)

12.00 Incremental innovation and economic sustainability: two essential variables
Giuseppe Turchetti (Pisa)



ALETTA 203

12.00 SPONSORED SYMPOSIUM ANGELINI
13.00 BRAIN DISORDERS IN PEDIATRIC AGE

Chairpersons: **Giuseppe Plazzi** (Bologna), **Giorgio Racagni** (Milan)

12.00 Impact of the gut microbiota on neurodevelopment and plasticity
Paola Tognini (Pisa)

12.20 Pathophysiology and clinical features - Current and future perspective in sleep medicine for children
Giuseppe Plazzi (Bologna)

12.40 Schizophrenia from childhood to adulthood: pathophysiological and clinical features
Gabriele Masi (Pisa)

AUDITORIUM



- 10.30** SPONSORED SYMPOSIUM NOVARTIS
11.30 SINGLE CHAIN VARIABLE FRAGMENTS ON THE HORIZON
 Chairperson: **Romano Danesi** (Pisa)
- 10.30** Pathological angiogenesis: root of wAMD
Romano Danesi (Pisa)
- 10.45** Pharmacodynamics and pharmacocynetics of single chain variable fragments
Stefano Fogli
- 11.00** Safety of single chain variable fragments: Browcizumab
Marina Ziche (Siena)
- 11.15** Clinical developement of single chain variable fragments in Ophtalmology
Federico Ricci (Rome)

SALA ONICE

10.00 SPONSORED LECTURE NOVONORDISK

10.30 Introduced by: **Laura Raimondi** (Florence)



The multifactorial action of GLP-1 RAs in type 2 diabetes treatment
Edoardo Mannucci (Florence)

15.00 SPONSORED SYMPOSIUM LUNDBECK&OTSUKA

16.00 THE NEW WAVE OF PARTIAL AGONISM: BREXPIRAZOLE, ITS PHARMACOLOGICAL AND CLINICAL PROFILE
 Chairperson: **Giorgio Racagni** (Milan)



15.00 The sweet spot of partial agonism, where to find brexpiprazole
Ferdinando Nicoletti (Rome)

15.30 Brexpiprazole: a new therapeutic option in the treatment of schizophrenia, its efficacy and safety profile
Leonardo Cortese (Windsor - Canada)

SALA LIMONAIA

17.00 SPONSORED LECTURE ALEXION
17.30



Introduced by: **Annamaria De Luca** (Bari), **Gianluca Trifirò** (Messina)

A new landscape in complement inhibition for PNH: from pharmacology to clinical practice

Rosario Notaro (Pisa)

ALETTA 202

11.00 SPONSORED LECTURE ZAMBON
11.30



Introduced by: **Pier Luigi Canonico** (Novara)

MAO-B inhibitors in Parkinson's Disease: a class with many differences

Ferdinando Nicoletti (Rome)

ALETTA 203



08.30 SPONSORED SYMPOSIUM MOLTENI

09.30 PHOTODYNAMIC THERAPY (PDT) AND NEW CLINICAL APPLICATIONS

Chairpersons: **Edoardo Mannucci** (Florence), **Gianmaria Rossolini** (Florence)

08.30 Introduction to PDT and its contribution to wound healing
Gianmaria Rossolini (Florence)

08.50 Clinical experiences with Vulnofast Plus/Vulnolight PDT System in infected diabetic foot ulcers
Matteo Monami (Florence)

09.10 HTA of PDT system and its economic impact on the diabetic foot ulcer management
Giuseppe Turchetti (Pisa)

10.00 SPONSORED SYMPOSIUM A. MENARINI

11.00 ANTIMICROBIAL RESISTANCE: A WORLDWIDE EMERGENCY

Chairperson: **Andrea Novelli** (Florence)

10.00 New methodologies for earlier and reliable microbiological diagnosis
Gianmaria Rossolini (Florence)

10.20 Evolution of antibiotics new strategies and mechanisms of action
Francesco Scaglione (Milan)

10.40 Urgent needs and expectatios of clinicians: role of the antimicrobial stewardships
Mario Venditti (Rome)





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