

FINAL PROGRAMME



MNS

2022

Mediterranean
Neuroscience Society

Hotel Dubrovnik Palace, Dubrovnik, Croatia

May 29 – June 2, 2022



WELCOME MESSAGE

Dear Colleagues,

On behalf of the Local Organizing Committee and the Croatian Neuroscience Society, it is my great pleasure to warmly welcome you all to the 8th Mediterranean Neuroscience Society (MNS) Conference 2022, in the magnificent city of Dubrovnik, Croatia.



This conference will bring together neuroscientists from the Mediterranean countries but also EU and worldwide international experts at the forefront of basic, clinical, and translational neuroscience.

The President of MNS, Giuseppe Di Giovanni, I, and the other members of the scientific and the local organizing committees have worked hard to organize a successful meeting, both scientifically and socially. Despite many obstacles and the postponement of the conference, the MNS2022 program is exceptional. It includes seven plenary lectures, more than 50 symposia, as well as over 50 poster presentations that will further stimulate face-to-face interactions.

One of the primary goals of the MNS2022 is to introduce and foster students at doctoral and postdoctoral levels, allowing them to share their research experiences and ideas in a vibrant but friendly environment. We are confident that the conference will refresh friendships and scientific collaborations among our research and academic institutions and also ignite new and exciting ones. Thank you for all your commitments and efforts made in preparing, sharing, and presenting your innovative and valuable research findings at this meeting. We also thank all our partners and sponsors for their support in these challenging times.

On behalf of the Local Organizing Committee, I wish you all much success with your presentations and forming of new collaborations, and welcome you to enjoy a stimulating atmosphere in the early Croatian summer on the beautiful Adriatic coast.

Yours Sincerely,

Goran Šimić

Croatian Institute for Brain Research, University of Zagreb Medical School
President of the Local Organizing Committee



CROATIAN
SOCIETY FOR
NEUROSCIENCE

Mediterranean Neuroscience Society (MNS)

Dear Colleagues,

The MNS has been created to support and help strengthen all initiatives that bring together Mediterranean neuroscientists.

The previously successfully held Mediterranean Conferences of Neuroscience were organized in Montpellier in 1997, Marrakech in 2006, Alexandria in 2009, Istanbul in 2012, Pula – Sardinia in 2015, St. Julian – Malta in 2017, and Marrakech again in 2019. The aforementioned MNS conferences gathered scientists from all Mediterranean countries and offered a rich program with lectures, symposia, poster sessions, and social events. These meetings have proved to be highly beneficial, not only for the scientific exchanges but also in terms of training opportunities for students and young researchers. Research on brain function in health and disease is among the priorities for today's societies, and several indicators put the Mediterranean research area among strategic issues for the European Union (EU).

Many South-North collaborations and networks have emerged in recent years through bilateral and multi-lateral actions, supported by the EU or by international and national actions, whether for setting up teaching curricula (Tempus programs), or by building human potential (Horizon programs).

Objectives of the MNS

The MNS works towards three main objectives:

- Strengthen exchanges between Mediterranean neuroscientists
- Promote education in the neurosciences and increase public awareness of progress made
- Sustain the Mediterranean Neuroscience Conference

To reach these objectives, the MNS's policy is to work in close cooperation with existing national and international Neuroscience Societies

MNS Council members

Giuseppe DI GIOVANNI, President (MT)
Liana FATTORE, Past-President (IT)
Christina DALLA, Vice-president (GR)
Goran ŠIMIĆ, General secretary (HR)
Isabel VARELA NIETO, Vice Secretary (ES)
Ali JAHANSHAH, Treasurer (NL)
Patrick VUILLEZ, Council member (FR)
Aviv WEINSTEIN, Council member (IL)
Jacques NOEL, Council member (FR)
Olfa MASMOUDI-KOUKI, Council member (TN)
Nuno SOUSA, Council member (PT)
Amira ZAKY, Council member (EG)
Patrizia CAMPOLONGO, Council member (IT)
Khalid EL ALLALI, Council member (MA)
Fatiha CHIGR, Council member (MA)

Honorary members

Giacomo Rizzolatti
Marina Bentivoglio

Emeritus members

Maria-Paz Viveros
Paul Pévet

ORGANIZED UNDER THE AUSPICES AND SUPPORT OF



LOCAL ORGANIZING COMMITTEE

Goran ŠIMIĆ (President)
Mirjana BABIĆ LEKO (Croatia)
Mirta BOBAN (Croatia)
Anja BUKOVAC (Croatia)
Christina DALLA (Greece, MNS Vice-President)
Giuseppe DI GIOVANNI (Malta, MNS President)
Lea LANGER HORVAT (Croatia)
Marijan KLARICA (Croatia)
Marc LANDRY (France, previous MNS President)
Ena ŠPANIĆ (Croatia)
Sara TRNSKI (Croatia)
Klara ZUBČIĆ (Croatia)

SCIENTIFIC COMMITTEE

Ali JAHANSHAHIANVAR (Turkey)
Amira ZAKY (Egypt)
Aviv WEINSTEIN (Israel)
Christina DALLA (Greece)
Fatiha CHIGR (Morocco)
Giuseppe DI GIOVANNI (Malta)
Goran ŠIMIĆ (Croatia)
Isabel VARELA-NIETO (Spain)
Jacques NOEL (France)
Khalid EL ALLALI (Morocco)
Liana FATTORE (Italy)
Nuno SOUSA (Portugal)
Olfa MASMOUDI-KOUKI (Tunis)
Patrick VUILLEZ (France)
Patrizia CAMPOLONGO (Italy)

SPONSORED BY



INFORMATION FOR SPEAKERS AND CHAIRPERSONS

The role of the chairpersons is to monitor speaking and discussion times and to lead the discussions. Chairpersons control the switch between presentations. Each Symposium presentation is 20 min followed by 5 min Q/A section.

Use a presentation in the **16:9** format. The Chairperson is responsible to collect all the presentations of their symposium. It is advisable that the Chairpersons use their own PC in which the presentations of the single speakers are saved for the Symposium.

All speakers must submit their presentations to the Chairperson and Secretary at info@medneuroscisociety.org before the 28th of May.

Multimedia Considerations and Slide Preparation

Presenters: Make your presentations compatible with on-site audio/visual specifications.

All screens in Dubrovnik will be **16:9** widescreen format.

...Before Traveling (Recommended)...

It is highly recommended to send your presentation before the 28th of May by email to your chairperson/s and cc info@medneuroscisociety.org specifying in the SUBJECT SYMPOSIUM NUMBER AND SYMPOSIUM PRESENTATION (e.g. S33.2 Symposium n 32 presentation n 2).

For the Chairpersons

Please note you are responsible for collecting all the presentations of your Symposium in a file on a USB memory stick and loading it on one of the Conference computers in the Conference Room before the start of the session. Another option is to use their own personal PCs with all the presentations saved.

Oral Presentations

Each oral presentation is 15 min followed by 5 min Q/A section. Use a presentation in the 16:9 format.

Please note that the conference computers in the session halls are being supplied with Office 2020.

If combining video films with PowerPoint, please make sure to check it with your chairperson before the start of the session.

Alternatively, you may supply your own laptop computer. In such a case please be aware if it has a VGA socket for external signal or take with you VGA to HDMI adaptor.

Important note for Macintosh users

In order to use MAC presentations, you may use your own Macintosh laptop computer. In such a case please confirm you provide it with a VGA adaptor for external signal.

POSTER INFORMATION

Poster Presentations

Whole-day poster presentations will take place in the Poster Area from Monday, May 30, 11:10 – 11:40 h and 16:55 – 17:25 h and Tuesday May 31, 11:10 – 11:40 h and 16:55 – 17:25 h. Authors are requested to be in attendance at their poster for discussion, as scheduled below:

Monday, May 30

11:10 – 11:40 h and 16:55 – 17:25 h Poster sessions

Tuesday, May 31

11:10 – 11:40 h and 16:55 – 17:25 h Poster sessions

Please find your board number by locating your abstract on the programme book.

You should display your poster on the board number assigned to you.

Poster boards are 2 meters high and 1 meter wide (portrait format).

Posters can be affixed by double-sided adhesive tape, available at the Poster Assistance desk onsite.

Posters should be mounted at 08:00 a.m.

Removal: Posters can be removed on Tuesday afternoon, after 17:30 h.

The organizers cannot be responsible for posters not being removed by the above-stated time.

Sunday, May 29th 2022**10:00-20:00** REGISTRATION**17:00-18:00** **Welcome to MNS Meeting (Mare 1 room)**

Goran Simic (MNS2022 President),
Tracy Bale (IBRO President),
Jean-Antoine Girault (FENS President),
Bayram Yilmaz (Secretary-General FEPS) and
Giuseppe Di Giovanni (MNS President)

18:00-18:50 **Plenary Lecture #1 (Mare 1 room)**

Tracy Bale (IBRO President): "Extracellular vesicles as systemic stress signals important to the brain"

Chair: Liana Fattore

19:00-20:00 **ALBA Network: Science and Networking Session (Mare 1 room)**

Lecture on "Sex and gender aspects of neuropsychiatric research" by Christina Dalla (National Kapodistrian of Athens, Greece - ALBA Volunteer)

Moderated by Zeljka Krsnik (University of Zagreb, CIBR, Croatia - ALBA Board of Directors), Tracy Bale (University of Maryland, USA - ALBA Board of Directors) & Jordan Marrocco (Touro University, NY, USA - ALBA Ambassador)

20:00-22:00 **ALBA Network Reception****Monday, May 30th 2022****8:00-18:00** REGISTRATION**8:30-9:20** **Plenary Lecture #2 (Mare 1 room)**

Laszlo Zaborszky (Center for Molecular and Behavioral Neuroscience, Rutgers, The State University of New Jersey, Newark, USA): "Forebrain Cholinergic System: From Anatomy to Function and Dysfunction"

Chair: Goran Šimić

9:30-11:10 **SYMPOSIA 1-6**

S1 "Synaptic communication in health and disease: from single molecule to network" (**Mare 1 room**)

CHAIR: Laurent Groc

Laurent Groc (University of Bordeaux, France): "Physiological and pathological membrane crosstalk of NMDA and dopamine receptors"

Fang Liu (Toronto, Canada): "The glucocorticoid receptor-FKBP51 complex contributes to fear conditioning and posttraumatic stress disorder"

Eric Hanse (Gothenburg, Sweden): "Cerebrospinal fluid promotes maturation of human iPSC-derived neurons and acutely modulates synaptic and neuronal function"

Yuji Ikegaya (Hongo, Bunkyo-ku, Tokyo, Japan): "Synaptic modulation and plasticity during hippocampal synchrony"

S2 "Cellular and molecular mechanisms regulating persistent changes in reward-related behaviors" (**Mare 2 room**)

CHAIR: Matt Lattal

Matt Lattal (Department of Behavioral Neuroscience, Oregon Health & Science University Portland, OR USA): "Persistent changes in motivation and reward following acute trauma"

Elizabeth A. Heller (Department of Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, PA, USA): "Persistent epigenetic regulation of novel targets across cocaine abstinence"

Marcelo A. Wood (Department of Neurobiology & Behavior, University of California Irvine): "Epigenetic mechanisms in the medial habenula underlying reinstatement of drug-seeking behavior"

Iva Zovkić (University of Toronto Mississauga, Mississauga, ON, Canada): "An emerging role for histone variants in behavioral regulation"

S3 "Novel Mechanisms by which Life Experiences across the Lifespan Change Neural Function and Behavior" (**Mare 3 room**)

CHAIR: Gretchen Neigh

Kerry Ressler (Harvard Medical School, Belmont, MA, USA): "Translating Across Circuits and Genetics Toward Progress in Understanding the Biology of Trauma-Related Disorders"

Tanja Jovanovic (Wayne State University, Detroit, MI, USA): "Trauma exposure across generations: how maternal trauma exposure and PTSD impacts the neurobiology of her children"

Vasiliki Michopoulous (Emory University, Atlanta, GA, USA): "Trauma exposure across the lifespan increases risk for adverse behavioral and physiological health outcomes in pregnant persons"

Gretchen Neigh (Virginia Commonwealth University, Richmond, VA, USA): "Developmental experiences cause longterm changes in mitochondrial function in synapses"

S4 "The brain as a target for endocrine-disrupting chemicals"
(Dubrava 2 room)

CHAIRS: Matthieu Keller, Thierry Charlier

Sakina Mhaouty Kodja (Universite Pierre et Marie Curie, France):
"Effects of exposure to low doses of plasticizers on cognitive behaviors in male mice"

Anne Simone Parent (Universite de Liege, Belgium):
"Neuroendocrine disruption of puberty and reproduction"

Marilena Marraudino (Torino University, Italy): "Genistein: a new Metabolism Disrupting Chemical"

Anne Claire Binter (ISGlobal, Spain): "Prenatal exposure to environmental pollutants and neurodevelopment: results from two European birth cohorts"

S5 "Contribution of early-life stress to the development of psychiatric disorders" (**Dubrava 1 room**)

CHAIRS: Desmedt Aline, Koehl Muriel

Gal Richter-Levin (Haifa, Israel): "Juvenile stress modulation of stress vulnerability and resilience in adulthood"

Archana Kolikil (Nijmegen, the Netherlands): "Effects of early-life stress on the quality of pup-dam interaction"

Desmedt Aline (Bordeaux, France): "Modeling adaptive versus maladaptive (PTSD-like) fear memory": Identification of contextual amnesia as a cause of PTSD-like hypermnesia"

Mohamed-Lyès Kaci (Bordeaux, France): "Prenatal stress increases vulnerability to PTSD-like memory"

S6 "Integrated neuromodulation in subcortical circuits for perception and reward" (**Mare 4 room**)

CHAIRS: Rosario Moratalla, Raffaella Tonini

Raffaella Tonini (Italian Institute of Technology, Genova, Italy):
"Neuromodulated plasticity in the noradrenergic locus coeruleus"

François Georges (University of Bordeaux, CNRS): "Locus coeruleus wake-up dopamine neurons during environmental novelty"

Gilad Silberberg (Karolinska Institutet, Stockholm, Sweden):
"Regulation of sensory responses by motor activity in the healthy and Parkinsonian striatum"

Adrian Sanz-Magrosario (Instituto Cajal (CSIC) Madrid, Spain):
"Non-motor co-morbidities ferikain early stages of Parkinson's Disease"

11:10-11:40 COFFEE BREAK AND POSTER PRESENTATIONS

11:40-13:40 SYMPOSIA 7-11

S7 "New insights in the hypothalamic circuitry regulating energy metabolism: physiological and pathophysiological implications"
(**Mare 1 room**)

CHAIRS: Carole Rovère, Nicolas Chartrel

Sophie Steculorum (Max Planck Institute for Metabolism Research, Cologne, Germany): "Neurocircuits of food sensory perception"

Marie Picot (Université de Rouen, Normandie Université, Mont-Saint-Aignan, France): "Central regulation of glycemia by insulin involves the 26RFa neuronal network"

Ophélia Le Thuc (Germany; Division of Metabolic Diseases, TUM, Munich, Germany): "The role of mitochondrial function in astrocytes in the neuroendocrine control of metabolism"

Alexandre Benani (Université Bourgogne Franche-Comté, Dijon, France): "Toward a link between neuroglial plasticity and satiety"

Céline Cansell (Université Côte d'Azur, Valbonne, France): "Dietary fat exacerbates post-prandial hypothalamic inflammation involving GFAP-positive cells and microglia in male mice" (video recording)

S8 "Glia-neuron glutamatergic interactions in health and disease"
(**Mare 2 room**)

CHAIRS: Yuriy Pankratov, Christian Henneberger

Robert Zorec (Ljubljana, Slovenia): "Vesicle Dynamics and Fusion Pore Regulation"

Christian Henneberger (Bonn, Germany): "Activity-dependent supply of NMDA receptor co-agonists in the hippocampus"

Justin Lee (Daejeon, Korea): "Best1-mediated tonic release of astrocytic D-serine in modulation NMDAR tone and cognitive flexibility"

Yuriy Pankratov (Coventry, United Kingdom): "Role for vesicular and non-vesicular glutamatergic gliotransmission in regulation of synaptic plasticity and working memory"

S9 "Why do we overeat? Unravelling the neuronal mechanisms underlying uncontrolled food intake" (**Mare 3 room**)

CHAIR: Yonatan Kupchik

Paul Kenny (New York, USA): "A brain aversion network that drives addiction-like overeating in obesity"

Robyn Mary Brown (Melbourne, Australia): "Why do women overeat? Characterizing a model of 'emotional' binge eating in female mice"

Yonatan Kupchik (Israel): "Innate clues in the ventral pallidum for the susceptibility to overeat"

Stephanie Borgland (Calgary, Canada): "Why do we eat too much? How palatable diets change the orbitofrontal cortex and valuation of food rewards"

Serge Luquet (Paris, France): "Nutritional lipids act on dopamine receptor type 2 (DRD2)-expressing neurons to gate dopamine-associated behaviours"

S10 "Using multiscale approaches to uncover the role of the superior parietal lobule in humans and non-human primates" (**Mare 4 room**)

CHAIR: Michela Gamberini

Nicola Palomero-Gallagher (Jülich, Germany): "Cyto- and receptor architectonic organization of the macaque and human superior parietal lobule"

Michela Gamberini (Bologna, Italy): "Anatomo-functional organization of the macaque superior parietal lobule"

Sabrina Pitzalis (Roma, Italy): "Functional specialization of the human dorso-medial parietal cortex"

Marco Davare (Uxbridge, United Kingdom): "The role of posterior parietal cortex in defining motor commands for reaching movements"

Ferdinand Binkofski (Aachen, Germany): "Somatosensory function and dysfunction of the superior parietal lobule. Tactile agnosia and tactile apraxia"

S11 "New perspectives on endocannabinoid signaling modulation of synaptic functions in physiological and pathological conditions" (**Dubrava 2 room**)

CHAIR: Roberto Colangeli

Benjamin Barti (Budapest, Hungary): "STORM super-resolution imaging of cannabinoid signaling"

Roberto Colangeli (Ancona, Italy): "Endocannabinoid signaling deficiency drives emotional and cognitive comorbidities in epilepsy"

Miriam Melis (Monserrato, Italy): "Prenatal THC and polymodal activation of endocannabinoid signaling at dopamine neurons"

Haley Vecchiarelli (Victoria, Canada): "Microglia in stress, colitis and Cannabis exposure: interactions with the (endo)cannabinoid system"

11:40-13:40 **Oral Communications (01-05) (Dubrava 1 room)**

CHAIR: Davor Virag

01 Alexander K. Converse (Madison, Wisconsin, USA): "Positron emission tomography neuroimaging of glucose metabolism in the rodent Pink1^{-/-} Parkinson Disease model"

02 Davor Virag (Zagreb, Croatia): "Diurnal and nocturnal locomotor patterns during recovery may predict the development of motor impairment in the 6-hydroxydopamine-induced rat model of Parkinson's disease"

03 Maryann N. Krasko (Madison, Wisconsin, USA): "Early-Stage Parkinson Disease: dysphagia, gastrointestinal dysfunction, and pathology in the Pink1^{-/-} rat model"

04 Jan Homolak (Zagreb, Croatia): "Can fecal properties warn us about developing Parkinson's disease? Preliminary results from the nested case-control study in the 6-hydroxydopamine-induced rat model of Parkinson's disease"

05 Pavlina Pavlidi (Athens, Greece): "PEERS — An Open Science "Platform for the Exchange of Experimental Research Standards" in Neuroscience and Biomedical Research"

13:40-14:40 LUNCH

15:15-16:55 **SYMPOSIA 12-16**

S12 "Multi-level analyses of acute stress: from basic research to clinical translation" (**Mare 2 room**)

CHAIR: Johannes Bohacek

Maurizio Popoli (Milan, Italy): "Dynamic dissection of short- and long-term response to acute stress: a matter of resilience or vulnerability"

Marloes Henckens (Nijmegen, Netherlands): "Neural activity and network connectivity associated with inter-individual differences in trauma susceptibility"

Johannes Bohacek (Zurich, Switzerland): "Chasing stress down a multi-omic rabbit hole"

Talma Hendler (Tel Aviv, Israel): "Self-neuromodulation targeting limbic activity for alleviating emotion-dysregulation in neuropsychiatric patients"

S13 "The Physiology, Function, and Pathology of the Claustrum" (Mare 3 room)

CHAIRS: Gilad Silberberg, Ami Citri

Anna Terem (The Hebrew University): "A claustrum-frontal dopamine-driven circuit essential for contextual association of reward"

Adam M. Packer (University of Oxford): "Input and output connectivity mapping reveals integrating properties of corticoclaustal and intraclaustral circuits"

Alan Carleton (University of Geneva): "The claustrum-medial prefrontal cortex network controls cognitive flexibility"

Roberto de la Torre-Martínez (Stockholm, Sweden): "Claustrum projections to the Anterior Cingulate Cortex are layer and cell-type dependent"

S14 "Molecular pathways and circuitry mechanisms in Autism Spectrum Disorder and Obsessive Compulsive Disorder: preclinical and clinical evidence" (Dubrava 1 room)

CHAIRS: Claudio D'Addario, Viviana Trezza

Antonia Manduca (Dept. Science, Roma Tre University): "The endocannabinoid system as a novel target for autism spectrum disorder"

Claudio D'Addario (University of Teramo, Italy): "Exploring epigenetic mechanisms in Obsessive Compulsive Disorder, preliminary data on a possible interplay with microbiota modulation"

Fulvio D'Acquisto (Rohampton University, UK): "Immuno-moodulin: a novel biomarker and therapeutic target for OCD and related disorders"

Vincenzo Micale (University of Catania, Italy): "Preclinical models of neurodevelopmental disorders: Focus on current evidence for the discovery of novel therapeutic targets"

S15 "Parkinson's Disease is not only dopamine or motor dysfunctions" (Mare 1 room)

CHAIRS: Micaela Morelli, Eduardo Tolosa

Eduardo Tolosa (University of Barcelona, Barcelona, Spain): "Neural substrates of non motor symptoms of Parkinson disease"

Véronique Sgambato (University of Lyon, France): "The role of serotonin on neuropsychiatric signs in Parkinson's disease"

Nina Vardjan (University of Ljubljana, Zaloska, Slovenia): "Astroglial contribution to neurodegeneration: focus on noradrenergic hypothesis"

Marina Pizzi (University of Brescia, Italy): "Non motor symptoms and synucleinopathy are associated with c-Rel deficiency in Parkinson's disease"

S16 "Recent advances in the understanding of pain and associated comorbidities" (Dubrava 2 room)

CHAIRS: Jacques Noël, Jérôme Busserolles

Rebecca Seal (Pittsburgh, USA): "Cross species transcriptomic analysis accelerates insights into the spinal dorsal horn circuitry for persistent pain and the development of novel gene therapies"

Sandrine Geranton (University College London, UK): "Epigenetics, stress and chronic pain"

Jacques Noël (Université Côte d'Azur, France): "Lysophosphatidylcholine in the serum of obese mice fed with high-fat diet activates Acid-Sensing Ion Channel 3 to sensitize DRG neurons and induce heat pain hypersensitivity"

Jérôme Busserolles (Auvergne University, Clermont-Ferrand, France): "TREK-1 channels as pharmacological targets for analgesic drugs in cancer situation"

16:55-17:25 COFFEE BREAK AND POSTER PRESENTATIONS

17:25-19:25 SYMPOSIA 17-21

S17 "Thalamocortical interactions in health and disease"
(Mare 1 room)

CHAIRS: Magor L. Lőrincz, Nathalie Leresche

Nathalie Leresche (Université, Paris, France): "Centrally expressed Cav3.2 T-type calcium channel is critical for the initiation and maintenance of neuropathic pain"

Magor L. Lőrincz (University of Szeged, Hungary): "State dependent thalamic activity on various timescales"

Stephane Charpier (Sorbonne Université, Paris): "Cortex and Thalamus: The Dangerous Liaisons"

Ferenc Mátyás (Research Centre for Natural Sciences, Budapest, Hungary): "The role of the thalamoamygdalar routes in associative learning"

László Acsády (Institute of Experimental Medicine, Budapest, Hungary): "On the variability of thalamic computational units"

S18 "Microbiome News and Views" (Mare 2 room)

CHAIR: Illana Gozes

Markus M. Heimesaat (Berlin, Germany): "Gut microbiota and Pituitary adenylate cyclase-activating polypeptide (PACAP) – lessons learned from murine infection and inflammation models"

Anna Kiryk (Nencki Institute of Experimental Biology, Polish Academy of Sciences, Warsaw, Poland): "Metabolic, gut microbiota composition and behavioral changes induced by altered fat-to-sugar ratio upon a dietary challenge"

Illana Gozes (Sackler Faculty of Medicine, Sagol School of Neuroscience and Adams Super Center for Brain Studies, Tel Aviv University, Israel): "A cross-talk between the microbiome and the brain: the ADNP autism syndrome and therapeutic development as a case study"

S19 "Understanding the role of GPCR heteroreceptor complexes and their adaptor proteins in the neuronal networks of the brain in health and mental disorders" (Mare 3 room)

CHAIRS: Dasiel O. Borroto-Escuela, Patrizia Ambrogini

Kjell Fuxe (Stockholm, SWEDEN): "GPCR heteroreceptor complexes and their adaptor proteins give new integrative mechanisms that may go wrong in Parkinson's disease, schizophrenia and cocaine addiction"

Fang Liu (Toronto, Canada): "D2-DISC1 protein complexes and their relevance for schizophrenia"

Ramon Fores-Pons (Malaga, SPAIN): "On the balance of D2R-MOR and D4R-MOR in the dorsal and ventral striatum. Putative link to morphine dependence and addiction"

Dasiel O. Borroto-Escuela (Stockholm, SWEDEN): "On the role of GPCR heteroreceptor complexes neuromodulation of the Claustrum"

Patrizia Ambrogini (Urbino, ITALY): "5-HT1A-FGFR1 heteroreceptor complexes and their allosteric receptor-receptor interactions in the hippocampus. Relevance for major depression and its treatment"

S20 "Drug addiction: From circuits to molecules" (Dubrava 1 room)

CHAIRS: Rami Yaka

Yonatan Kupchik (Israel): "The role of different ventral pallidal projection neurons in abstinence from cocaine"

Ana João Rodrigues (Portugal): "Distinct (but not necessarily opposing) roles of nucleus accumbens D1- and D2-neurons in behavior"

Miriam Melis (Cagliari, Italy): "Mesolimbic dopamine dysregulation as a signature of aberrant salience attribution imposed by prenatal THC exposure"

Claire Thornton (UK): "The impact of cocaine exposure on mitochondrial dynamics"

Rami Yaka (Israel): "Molecular mechanism underlying the action of Zeta Inhibitory Peptide as memory eraser"

S21 "Sex differences in the neurobiology of Motivated Behaviors" (Mare 4 room)

CHAIRS: Mohamed Kabbaj, Zuoxin Wang

Marcello Wood (University of California Irvine, USA): "Sex differences in an epigenetic feedback mechanism underlying effects of exercise in memory formation"

Florian Duclot (Florida State University, USA): "Transcriptomic regulations associated with individual differences in paternal care in prairie voles"

Stefania Maccari (North University of Lille, France): "Early maternal care at the core of the sex-dimorphic intergenerational transmission of the maladaptive response to stress in the perinatally stressed rats"

Xin-Yun Lu (Medical College of Georgia, Augusta University, Georgia, USA): "Exon-specific histone modifications of hippocampal Bdnf underlie individual variations and sex differences in stress susceptibility"

Mary Kay Lobo (University of Maryland, School of Medicine, Baltimore, USA): "Converging circuit and molecular mechanisms with opioid and stress exposure"

17:25-19:25 **Oral Communications (06-010) (Dubrava 2 room)**

CHAIR: Anna Terem

06 Sanchez Clara (Valbonne, France): "Effect of lipid nature on microglial reactivity, neuroinflammation and cognitive disorders associated with obesity"

07 David Holcman (Paris, France): "Nanoscale molecular organization in dendritic spines regulates calcium storage and depletion"

08 Pastor Jennyfer (Tel-Aviv, Israel): "Effects of IGF1 on excitability of sensory nociceptive dorsal root ganglia neurons"

09 Nagesh C. Shanbhag (Lund, Sweden): "Curious case of impaired glymphatic pathways in a gyrencephalic brain"

010 Anna Terem (Jerusalem, Israel): "The role of the claustrum in opiate versus psychostimulant preference -the differences do matter!"

19:30-20:30 **Plenary Lecture #3 (Mare 1 room)**

Jean-Antoine Girault (FENS President, Institut du Fer à Moulin, Sorbonne University, Paris): "Signaling and gene regulation in striatal projection neurons: function and dysfunction in neurological and psychiatric disorders"

Chair: Liana Fattore

20:30 WELCOME DRINK

Tuesday, May 31st 2022

10:00-18:00 REGISTRATION

8:30-9:20 **Plenary Lecture #4 (Mare 1 room)**

George Paxinos (School of Medical Sciences, UNSW Sydney, Australia) "Is the Brain the Right Size?"

Chair: Christina Dalla

9:30-11:10 **SYMPOSIA 22-26**

S22 "New insights on endocannabinoid regulation of fear memory dynamics: from bench to bedside" (**Mare 1 room**)

CHAIR: Maria Morena

Maria Morena (Calgary, Canada): "Endocannabinoid system and regulation of stress-effects on fear memory processes"

Andrew Holmes (Rockville, MD, USA): "Endocannabinoid circuit modulation of aversive memory"

Rebecca Shansky (Boston, MA, USA): "TRPV1 signaling as a mediator of sex-dependent fear generalization"

Leah Mayo (Linköping, Sweden): "The endocannabinoid system as a target for stress-related psychiatric disorders: evidence from healthy and clinical human populations"

S23 "Sex differences in motivated behaviors and their regulation by stress" (**Mare 2 room**)

CHAIR: Debra Bangasser

Jill Becker (Michigan, USA): "Sex differences in the role of GPER-1 in motivated behaviors"

Jill Turner (Kentucky, USA): "Microglial contributions to nicotine dependence"

Deena M. Walker (Oregon, USA): "Adolescent social stress reprograms sex-specific cocaine induced behavior and transcription in the adult medial amygdala"

Debra Bangasser (Temple University, USA): "Effects of early life adversity on steroid hormones and motivated behaviors"

S24 "Vulnerabilities for psychopathologies and neurodegeneration: sensitive ages, mechanisms and targets" (**Dubrava 2 room**)

CHAIRS: Aniko Korosi, Annamaria Cattaneo

Sandrine Thuret (London, UK): "Adult Hippocampal Neurogenesis in Major Depressive Disorder and Alzheimer's Disease: A potential converging mechanism"

Aniko Korosi (Amsterdam, The Netherlands): "Effects of early-life stress on memory and mood, a role for inflammation and nutrition"

Annamaria Cattaneo (Milan, Italy): "Inflammatory markers as early biological alterations of vulnerability associated with early life stress exposures"

Sarah Nicolas (Cork, Ireland): "Inflammatory stressors, memory and mood across the lifespan: hippocampal neurogenesis and microbiota-gut-brain axis as key mediators"

S25 "The contribution of V-ATPase to neurosecretion" (**Mare 3 room**)

CHAIR: Nicolas Vitale

Nicolas Vitale (Strasbourg, France): "V-ATPase regulates the synthesis of fusogenic lipids at the exocytotic sites"

Julia Preobraschenski (Goettingen, Germany): "The role of the V-ATPase in synaptic vesicle filling with neurotransmitter"

Jurgen Klingauf (Muenster, Germany): "Assembly/disassembly of presynaptic V-ATPase regulates neurotransmitter release"

Oussama EL-FAR (Marseille, France): "The V-ATPase V0c/V0d interplay modulates V0c interaction with the SNARE complex and exocytosis"

S26 "Translational medicine for neurodegenerative pathologies: endogenous and natural molecules from human brain through Drosophila to cerebral organoids" (**Dubrava 1 room**)

CHAIR: Andrea Diana

Maja Jazvinscak Jembrek (Zagreb, Croatia): "Neuroprotective potential of flavonols against oxidative stress-mediated injury"

Andrea Diana (Cagliari, Italy): "Effects of phytotherapeutic and human derived extracts on functional and morphological parameters in Drosophila mutants as Parkinson's disease models"

Goran Simic (Zagreb, Croatia): "Therapeutic strategies for attenuation of imminent inflammation in Alzheimer's disease"

11:10-11:40 COFFEE BREAK AND POSTER PRESENTATIONS

11:40-13:40 SYMPOSIA 27-31

S27 "Tuning the brain: neuromodulation for neurological and psychiatric diseases" (**Mare 1 room**)

CHAIR: Salvatore Galati

Alain Kaelin-Lang (Lugano, Switzerland): "DBS for dystonia and related movement disorders: efficacy and mechanisms of action"

Veronica Ghiglieri (Rome, Italy): "Recovery of corticostriatal synaptic plasticity by transcranial magnetic stimulation in experimental parkinsonisms"

Salvatore Galati (Lugano, Switzerland): "Sleeping brain rhythms tune dyskinesias"

Alessandro Stefani (Rome, Italy): "Deep Brain Stimulation in Parkinson's disease patients and experimental disease models: scenes from a marriage?"

Graziella Madeo (Padua, Italy): "Brain stimulation for treating addictions: clinical outcomes and follow-up"

S28 "Dopamine Related Disorders: new insight and therapeutic perspectives" (**Dubrava 1 room**)

CHAIR: Damiana Leo

Damiana Leo (University of Mons, Belgium): "Dopamine Transporter Knock-out Rats an innovative animal model for dopamine related diseases"

Stefano Espinoza (Istituto Italiano di Tecnologia, IIT, Genoa, Italy): "Neuronal hemoglobin induces loss of dopaminergic neurons in mouse substantia nigra, cognitive deficits and cleavage of endogenous α -synuclein"

Massimiliano Caiazzo (Utrecht University, Netherlands/University of Naples "Federico II", Italy): "Cell reprogramming approaches for the generation of dopaminergic in vitro neural systems"

Lucia Caffino (Department of Pharmacological and Biomolecular Sciences, University of Milan): "Deletion of dopamine transporter alters glutamate homeostasis in rat striatum"

Federica Bono (Università degli Studi di Brescia, Brescia Italy): "The role of dopamine receptors and their alterations in neurodegeneration"

S29 "Tryptophan, Serotonin, and Kynurenine Metabolites: Neurodevelopmental Building Blocks with Long-Lasting Impacts" (Mare 2 room)

CHAIR: Ana Pocivavsek

Jodi Pawluski (Rennes, France): "Perinatal Serotonin and Maternal Mental Illness: Selective Serotonin Reuptake Inhibitors in Offspring - Neurobehavioral Outcomes"

Ana Pocivavsek (Columbia, USA): "Modeling Kynurenic Acid Elevation in Rodents during Development: Implications for Cognition and Psychiatric Illness"

Sarah Beggiato (Chieti/Italy and Ferrara/Italy): "Long-lasting kynurenine pathway alterations triggered by the exposure to THC in critical phases of brain maturation"

Stefano Comai (Milano, Italy): "Emotional Changes During Pregnancy and Postpartum: Role of the Tryptophan to Kynurenine Degradation, Inflammation and Stress"

Sophie Erhardt (Stockholm, Sweden): "Neuroinflammation and Tryptophan Degradation - Associations between Kynurenine Metabolites and Psychiatric Symptoms"

S30 "Exploring new therapeutic targets to treat neurodevelopmental diseases: from synapse to behavior" (Dubrava 2 room)

CHAIR: Antonia Manduca

Barbara Bardonì (Valbonne, France): "Modulation of cAMP and cGMP in therapeutic approaches for ASD"

Erica Zamberletti (Varese, Italy): "Targeting matrix metalloproteinase and inflammatory dysfunctions in autism spectrum disorder"

Maria Bove (Foggia, Italy): "N-acetylcysteine decreases stereotyped repertoire, anxiety-like behavior and neuroinflammation in a mouse model of ASD-like dysfunctions"

Annamaria Tartaglione (Rome, Italy): "Investigating the contribution of microbiota to ASD-like phenotype in the maternal immune activation mouse model: insights for novel therapeutic approaches"

S31 "Plant-derived versus endogenous cannabinoids in the burning brain: the root of all evil, or a panacea?" (Mare 4 room)

CHAIRS: Katarzyna Starowicz, Giuseppe Di Giovanni

Lungo Livio (University of Campania "L. Vanvitelli", Naples, Italy): "endocannabinoids and microglia changes in a model of stroke-induced neuropathic pain: possible intervention with a palmitoylethanolamide/luteolin combination"

Tatiana Pinto Morais, Vincenzo Crunelli, Giuseppe Di Giovanni (Cardiff University, Cardiff, UK): "Role of Cannabinoids in Absence Epilepsy"

Mauro Maccarrone, Lucia Scipioni, Marina Fava, Niccolò Pellegrini, Francesca Ciaramellano, Sergio Oddi and Alessandro Leuti (University of L'Aquila, L'Aquila, Italy): "The intersection between endocannabinoid signaling and resolution of inflammation in Alzheimer's disease"

Katarzyna Starowicz (Krakow, Poland): "Network analysis to disentangle cannabidiol pharmacology in complex diseases: focus on neuropathic component of osteoarthritis"

13:40-14:40 LUNCH

14:40-16:20 **SYMPOSIA 32-37**

S32 "Exploration into Future Targets for Addictions Pharmacotherapy" (Mare 1 room)

CHAIR: Umberto Spampinato

Silvana Gaetani (Rome, Italy): "Effects of acylethanolamides on "food addiction": from the modulation of compulsive eating to the mitigation of withdrawal symptoms"

John Neumaier (Seattle, WA, USA): "RiboTag-Seq Reveals a Compensatory cAMP Responsive Gene Network in Striatal Microglia induced by Morphine Withdrawal"

Umberto Spampinato (Bordeaux, France): "Central serotonin2B receptor blockade inhibits cocaine-induced hyperlocomotion: role of medial prefrontal cortex dopamine release"

S33 "The mesopontine tegmentum: a key crossroad for the modulation of physio-pathological behaviors" (**Mare 2 room**)

CHAIR: Jacques Barik

Juan Mena Segovia (Rutgers University Newark, USA): "Neuronal substrates of behavioral inhibition in the PPN"

Kristi Kohlmeier (University of Copenhagen, Denmark): "Prenatal nicotine exposure is associated with cellular and synaptic changes in the laterodorsal tegmental nucleus which are likely to play a role in the high risk of motivation and attention disorders when exposed to nicotine during gestation"

Jacques Barik (Côte d'Azur University, France): "Role of the laterodorsal tegmental nucleus in defensive behaviors"

Ana João Rodrigues (University of Minho, Portugal) "Role of laterodorsal tegmentum to nucleus accumbens inputs in reinforcement"

S34 "Current Progress of Research on Neurodegenerative Diseases" (**Dubrava 1 room**)

CHAIRS: Ahmad R. Bassiouny, James O. Olopade

James O. Olopade (University of Illinois, Nigeria): "Let the brain get the best from the plant: An approach to neurophytotherapy in relatively low resource settings"

Nehal Zaky Abdelaziz (Mansoura University for Science and Technology, Egypt): "MicroRNAs as epigenetic orchestrator of information in Alzheimer's disease: Reflections from an Egyptian population study"

Ahmad R. Bassiouny (Alexandria University, Egypt): "Parkinson Disease, the challenge of early diagnosis and prevention"

Amira Zaky (Alexandria University, Egypt): "Nano-curcumin Halts Pain-associated Neuroinflammation"

S35 "The Stressed brain: from humans to translational models of neuropsychiatric diseases" (**Dubrava 2 room**)

CHAIRS: Nuno Sousa, Ioannis Sotiropoulos

Mohammed R. Milad (NYU School of Medicine, USA): "Impact of estradiol variance on the neural circuit of fear extinction: implications to psychopathology"

Katerina Antoniou (University of Ioannina, Ioannina, Greece): "An evaluation of cannabinoids' detrimental and therapeutic effects in experimental psychosis"

Ioannis Sotiropoulos (University of Minho, Portugal): "Chronic Stress & Exosomes: key players in progression and diagnosis of Alzheimer's disease"

Luisa Alexandra Meireles Pinto (University of Minho, Portugal): "Adult astrogliogenesis as a key mechanism underlying the path physiology of stress-induced depression"

S36 "Defining the stress response of the brain, adrenal, and other organs at the molecular, cellular and tissue levels" (**Mare 3 room**)

CHAIR: Youssef Anouar

Y. Anouar (INSERM U1239, University of Rouen, France): "SELENOT modulates oxidative/ER stress responses in chromaffin cells in adrenal medulla and dopaminergic neurons in CNS"

L. Eiden (NIMH-IRP, Bethesda, USA): "PACAP, an emergency response neuropeptide acting at multiple levels to regulate stress"

A. Zaky (Alexandria University, Egypt): "Protective effect of blocking Redox factor-1 activity during pain signaling"

Nathalie C. Guérineau (University of Montpellier, France): "Stress-induced functional adaptive changes in the adrenal medullary tissue"

S37 "Role of gut-brain axis on the etiopathogenesis of mood disorders" (**Mare 4 room**)

CHAIRS: Luigia Trabace, Giuseppina Mattace Raso

Lorena Coretti (University of Malta, Msida, Malta): "Gut microbiota alteration linked to anxiety-like behavior in a mouse model harboring a gain-of-function mutation associated with autism"

Adriano Lama (University of Naples, Italy): "Gut-brain axis: palmitoylethanolamide, a PPAR- α agonist, counteracts obesity-induced mood disorders"

Maria Grazia Morgese (University of Foggia, Foggia, Italy): "Dysfunction of the immune system in the pathogenesis of depression: role of n-3 PUFA deficiency"

Brian Harvey (North-West University Potchefstroom, South Africa): "Natural compulsive-like behavior in an animal model of OCD is associated with altered gut microbiota composition: Implications for comorbid anxiety and mood disorders"

16:20-17:20 COFFEE BREAK AND POSTER PRESENTATIONS

17:20-18:35 Oral Communications (011-027)

011-013 (Dubrava 1 room)

CHAIR: Arianna Mazzoli

011 Arianna Mazzoli (Naples, Italy): "Fructose Removal from the Diet Reverses Inflammation, Mitochondrial Dysfunction, and oxidative Stress in Hippocampus"

012 Klaus G. Petry (Bordeaux, France): "In vivo selection, NGS and bioinformatics of phage displayed peptide repertoires to define experimentally functional protein domains in inflammatory neurodegeneration"

013 Ana Knezović (Zagreb, Croatia): "From determining brain insulin resistance in a sporadic Alzheimer's disease model to exploring the region-dependent effect of intranasal insulin"

014-016 (Mare 2 room)

CHAIR: Silvia Mandillo

014 Asaid Khatib (Haifa, Israel): "Concept pre-activation improves visual word processing in spoken and literary Arabic: A behavioral and event-related potential study using a picture-word matching task"

015 Jorge F. Mejias (Amsterdam, the Netherlands): "Fluid functional hierarchies for multisensory integration in a large-scale computational model of the mouse brain"

016 Silvia Mandillo (Rome, Italy): "Improving biomedical research by automated behavior monitoring in the animal home-cage – COST Action TEATIME CA20135"

017-019 (Mare 1 room)

CHAIR: Željka Korade

017 Željka Korade (Omaha, Nebraska, USA): "Disruption of brain sterol biosynthesis by commonly used prescription medications"

018 Károly Mirnics (Omaha, Nebraska, USA): "Interaction of genetics, pregnancy, and medications on the developing brain"

019 Liubov S. Kalinichenko (Erlangen, Germany): "Neutral sphingomyelinase determines the comorbidity trias of alcohol abuse, major depression and bone defects"

CHAIR: Stefania Schiavone

020-022 (Dubrava 2 room)

020 Ozge Selin Cevik (Mersin, Turkey): "What doesn't kill you makes you stronger: increased memory function in maternally separated rats without effects of environmental enrichment"

021 Ozge Selin Cevik (Mersin, Turkey): "Environmental enrichment as a strategy to encounter social isolation stress: attenuates memory impairment in stressed male rats"

022 Stefania Schiavone (Foggia, Italy): "Social isolation induces anxiety-like behaviors in adult rats: relation to neuroendocrine and neurochemical dysfunctions"

023-024 i 028 (Mare 3 room)

CHAIR: Sandra Jurado

023 Sandra Jurado (Alicante, Spain): "Oxytocinergic modulation of synaptic function: Implications for neurodevelopment and aging"

024 Blin Nicolas (Bordeaux, France): "Title: Successful cognitive aging relies on healthy adult born dentate neurons"

028 James O. Olopade (University of Ibadan, Nigeria): "Let the brain get the best from the plant: An approach to neurophytotherapy in relatively low resource settings"

025-027 (Mare 4 room)

CHAIR: Ali Jahanshahi

025 Ali Jahanshahi (Maastricht, the Netherlands): "High frequency stimulation of the subthalamic nucleus: linking mood and motor effects at the level of the basal ganglia and 5-HT system"

026 Rohan de Silva (London, UK): "MIR-NAT: A paired antisense long non-coding RNA gene regulates tau translation"

027 Radwa Khalil (Bremen, Germany): "Signatures of Neural Mechanisms and Neuroplasticity Underpinning Creative Thinking"

18:40-19:30 Plenary Lecture #5 (Mare 1 room)

Fiorenzo Conti (SIF President - Università Politecnica delle Marche, Ancona, Italy): "Glutamate transporter GLT-1: a novel localization for a novel function"

Chair: Giuseppe Di Giovanni

19:30-19:50 **Poster prizes/Travel Grants/Honorary Memberships Awards**
(Mare 1 room)

Chairs: Goran Šimić, Giuseppe Di Giovanni, Liana Fattore, Christina Dalla

19:50-20:40 **MNS GENERAL ASSEMBLY** (Mare 1 room)

Chairs: Goran Šimić, Giuseppe Di Giovanni, Ali Jahanshahi, Liana Fattore, Christina Dalla

Wednesday, June 1st 2022

8:30-9:20 **Plenary Lecture #6** (Mare 1 room)

Ivana Delalle (Brown University, Boston University, and German Center for Neurodegenerative Diseases): "MicroRNAs as Diagnostic and Prognostic Biomarker of Alzheimer's Disease"

Chair: Goran Šimić

9:30-11:10 **SYMPOSIA 38-43**

S38 "Deciphering the intricate glial response in aging and neurodegenerative disorders: from cellular changes to therapeutics"
(Mare 1 room)

CHAIRS: Caterina Scuderi, Erika Gyengesi

Caterina Scuderi (SAPIENZA University of Rome, Rome, Italy): "What differentiates an aged astrocyte from an Alzheimer's one? Looking for cellular differences for the development of new therapies"

Laura Ferraiuolo (Sheffield Institute of Translational Neuroscience, University of Sheffield, Sheffield, England): "Directly converted astrocytes retain the ageing features of the donor fibroblasts and elucidate the astrocytic contribution to human CNS health and disease"

Mariagrazia Grilli (University of Piemonte Orientale, Novara, Italy): "Glia and Neural Cell Stem cross-talk in aging and neurodegeneration"

Erika Gyengesi: "The contribution of glial reactivity in aging and neurodegenerative disorders: from cellular modifications to possible therapeutic approaches"

S39 "There's a time to make a change: how early exposure to drugs of abuse or to environmental challenges may affect the mesocorticolimbic pathway" (Mare 2 room)

CHAIR: Carla Cannizzaro

Alba García-Baos (University Pompeu Fabra, Barcelona, Spain): "Cannabinoids modulate cognitive deficits induced by prenatal alcohol exposure in mice"

Steven Laviolette (The University of Western Ontario, London, Ontario, Canada): "Pre-natal Cannabinoid Exposure Leads to Long Term Abnormalities in Brain Omega-3 Fatty Acid Levels and Sex-Dependent Schizophrenia-like Dysregulation of the Mesocorticolimbic Circuitry"

Mercè Correa (Universitat Jaume I, Castelló de la Plana, Spain): "Mild maternal separation in mice of both sexes affects the dopaminergic system and has an impact in adulthood on vigor to approach or to escape motivational stimuli"

Anna Brancato (University of Palermo, Italy): "Beyond the booze fun: binge alcohol drinking during adolescence alters dopamine and glutamate homeostasis in the nucleus accumbens and jeopardizes social resilience in rats"

S41 "Novel Psychoactive Substances (NPS): new exciting findings"
(Dubrava 1 room)

CHAIRS: Aviv Weinstein, Sabine Bilel

Sabine Bilel (Ferrara, Italy): "Pharmacotoxicological effects of fentanyl in the mouse: in vitro and in vivo pharmacokinetic and pharmacodynamic studies"

Aviv Weinstein (Ariel University, Israel): "The effects of synthetic cannabinoids on executive function and the brain"

Charalampos Brakatselos (Ioannina, Greece): "Repeated ketamine induces a regionally specific plasticity dysregulation and behavioral alterations related to schizophrenia. The impact of Cannabidiol administration"

S42 "Sex & Genes & Stress: Probing these factors in rodents models for a better understanding of psychiatric disorders" (Mare 3 room)

CHAIRS: Anna Y. Yotova, David A. Slattery

Pavlina Pavlidi, Nikolaos Kokras, Christina Dalla (National and Kapodistrian University of Athens, Greece): "Sex differences in depression and anxiety: focus on neuroestrogen's receptor GPER1"

Anna Y. Yotova (University Hospital Frankfurt / Institute of Cell Biology and Neuroscience, Faculty of Biological Sciences, Goethe University Frankfurt, Germany): "Sex & Genes & Inflammation: Effects of prenatal immune challenge on phenotype and synaptic protein composition before birth and in adulthood"

David A. Slattery (University Hospital Frankfurt, Germany): "Insulin signalling – A Trojan Horse of mental disorders"

S43 "Neuropeptide modulation of pain transmission" (**Mare 4 room**)

CHAIR: Marc Landry

Mai Iwasaki, Arthur Lefevre, Valery Grinevich, Alexandre Charlet (Institute of Cellular and Integrative Neurosciences, Strasbourg, France): "Deciphering the cellular basis of oxytocinergic control of pain associated disorders"

A. Gargouri, I. Kacem, R. Gouider (Razi University Hospital Tunisia): "Migraine: Calcitonin gene-related peptide implications and novel medications"

Marc Landry (University of Bordeaux, Institute of Neurodegenerative Diseases, Bordeaux, France): "Analgesic properties of the relaxin peptide family"

11:10-11:30 COFFEE BREAK

11:30-13:30 **SYMPOSIA 44-49**

S44 "Social behavior and social brain: from physiology to pathology" (**Mare 2 room**)

CHAIRS: Laetitia Davidovic, Julie Le Merrer

Fabrice de Chaumont (Paris, France): "Complexity and dynamics of social behaviors in rodents"

Francesco Papaleo (Genova, Italy): "Circuits of Emotion Discrimination"

Alessandro Gozzi (Rovereto, Italy): "Oxytocin and the rodent social brain: a network-level perspective"

Julie Le Merrer (Tours, France): "Social behavior and striatum: reward matters"

Laetitia Davidovic (Valbonne, France): "Microbial metabolites, gut microbiota and social behavior"

S45 "Novel insights into physiology and pathology of autophagy in neuronal maintenance" (**Mare 4 room**)

CHAIRS: Graziella Cappelletti, Antonella Scorziello

Diego Medina (Telethon Institute of Genetics and Medicine (TIGEM), Naples, Italy): "Lysosomal Signaling: The role of lysosomal calcium"

Nektarios Tavernarakis (Med. School Univ. of Crete and Foundation for Research and Tech., Heraklion, Crete, Greece): "Mechanisms of mitochondrial turnover in neuronal physiology and pathology during ageing"

Agnese Secondo (Federico II University of Naples, Italy): "Emerging role of lysosomal calcium store as the hub of autophagy and neur protection in ALS models"

Mattia Volta (Institute for Biomedicine, Eurac Research, Bolzano, Italy): "Lysosomal dysfunction in Parkinson's disease: the role of the small GTPase Rit2"

Maria Josè Sisalli (Federico II University of Naples, Italy): "Balancing mitophagy and mitochondrial biogenesis to maintain energy metabolism is required for the neuroprotection induced by ischemic brain preconditioning"

S46 "From pathophysiology to therapeutic strategies of Alzheimer's disease: novel insights from experimental models and patient studies" (**Mare 1 room**)

CHAIR: Dubravka Svob Strac

Dubravka Svob Strac (Zagreb, Croatia): "Studying therapeutic potential of neurosteroids and neurotrophins in Alzheimer disease: an in vitro approach"

Dóra Zelena (Budapest, Hungary): "Phenotypic characterization of the triple transgenic animal model of Alzheimer's disorder, translational considerations"

Gordana Nedic Erjavec (Zagreb, Croatia): "Genetic biomarkers of Alzheimer's disease"

Alja Videtic Paska (Ljubljana, Slovenia): "DNA methylation of candidate genes in Alzheimer's disease"

Matea Nikolac Perkovic (Zagreb, Croatia): "Metabolic profiling of Alzheimer's disease: potential in biomarker discovery and early detection of Alzheimer's dementia"

S47 "Synaptic plasticity in epilepsy: from synapses to circuits"
(Mare 3 room)

CHAIRS: Giuseppe Di Giovanni, Sandra H. Vaz

Ana Maria Sebastião (University of Lisbon, Portugal): "Synaptic plasticity in epilepsy: the Janus face of adenosine"

Gian Michele Ratto (NEST, Istituto Nanoscienze CNR and Scuola Normale Superiore, Pisa, Italy): "Modeling of focal cortical dysplasia: where the normal brain meets a mutation"

Graham Collingridge (University of Bristol): "Glutamate receptors and synaptic plasticity in health and disease"

Eleonora Palma (Università di Roma Sapienza): "Dissecting the basic epileptogenic mechanisms in neurodevelopmental disorders"

S48 "Sex differences, immune and steroid effects in the brain: implications for neuropsychiatric disorders and their treatment"
(Dubrava 2 room)

CHAIR: Christina Dalla

Georgia E. Hodes (Virginia, USA): "Of Mice and Wo/Men: Translating sex differences in cytokine responses between treatment resistant depression and animal models"

Nikolaos Kokras (Athens, Greece): "Sex differences in antidepressant response: The role of the HPA axis"

Jordan Marrocco (New York, USA): "Epigenetic targets of oral corticosterone in the dorsal and ventral hippocampus"

Harris Alexopoulos (Athens, Greece): "Stiff Person Syndrome: Pathophysiology and sex differences"

S49 "Neuropathologies, Neuroprotection and Innovative Therapies"
(Dubrava 1 room)

CHAIRS: Olfa Masmoudi-Kouki, Taoufik Ghrairi

Imen Kacem and Riadh Guider (University of Tunis El Manar, Tunisia): "Amyotrophic Lateral Sclerosis a model of neurodegenerative disease"

Taoufik Ghrairi (University of Tunis El Manar, Tunisia): "In vitro evaluation of the effect of cumin and thym essential oils on H2O2- induced cytotoxicity"

Olfa Masmoudi (University of Tunis El Manar, Tunisia): "Cytoprotective and neurotrophic effects of OctaDecaNeuropeptide (ODN) in vitro and in vivo models of neurodegenerative diseases"

Lucio Annunziato (University of Naples, Italy): "The epigenetic and transcriptional factors HDAC4, HDAC5, dream and GATA3/KM5T2A complex regulate NCX3 expression contributing to ischemic neuroprotection"

13:30-14:30 LUNCH

14:30-15:30 **WORKSHOP ON PUBLISHING** (Dubrava 2 room)

"How To Get a Paper Published, Read & Cited" Elsevier

Giuseppe Di Giovanni

Philippe De Deurwaerdere

15:30-17:10 **SYMPOSIA 50-54**

S50 "Neuropeptidergic impact in cognition and metabolism"
(Dubrava 2 room)

CHAIRS: Francisco E. Olucha-Bordonau, Ángel Núñez-Molina

Ángel Núñez-Molina (Universidad Autónoma de Madrid, Spain): "Modulation of cortical activity by IGF-I through cholinergic basal forebrain neurons"

Francisco E. Olucha Bordonau (Universitat Jaume I, Castellón, Spain): "The relaxin 3-nucleus incertus projections to the medial septum in triggering hippocampal activity"

Miguel Garzón (Universidad Autónoma de Madrid, Spain): "Hypocretin targeting of pontine neural networks governing REM sleep"

Georgina Cano (University of Pittsburgh, USA): "Role of Urocortin-1 from Edinger-Westphal nucleus in thermoregulation and adipose tissue metabolism"

S51 "Risk and protective factors in drug use and vulnerability to addiction" (Mare 1 room)

CHAIRS: Liana Fattore, Maria Antonietta de Luca

Maria Antonietta De Luca (University of Cagliari, Italy): "Age- and sex-related vulnerability in the use of novel psychoactive substances: preclinical data on cannabinoids, phenethylamines, and cathinones"

John D. Salamone (University of Connecticut, Storrs, USA): "Effort-related effects of atypical dopamine transport inhibitors"

Jaanus Harro (University of Tartu, Estonia): "Sensitivity in rats and humans to psychostimulants: Relationship with reward sensitivity vs positive affect"

Liana Fattore (CNR Institute of Neuroscience, Italy): "Impact of repeated exposure to hormonal contraceptives during adolescence on cannabinoid-induced behavior in female rats"

S52 "Exposure to chronodisruptive environment impacts neuroendocrine functions" (**Mare 2 room**)

CHAIR: Patrick Vuillez

Virginie Laurent-Gydé (University of Strasbourg, Strasbourg, France): "Inappropriate exposure to blue enriched light affects behavior in mice. How is it relevant to humans?"

Valérie Simonneaux (INCI, Strasbourg, France): "A chronodisruptive light/dark cycle markedly impairs the central regulation of female fertility"

Andries Kalsbeek (Netherlands Institute for Neuroscience, Amsterdam, Netherlands): "Can well-timed exercise repair the chronodisruptive effects of mis-timed feeding?"

Henrik Oster (Institut of Neurobiology, Lübeck, Germany): "Circadian appetite regulation - a tale of two clocks"

S53 "Rapid Acting Antidepressants—Not only NMDAR antagonism" (**Dubrava 1 room**)

CHAIRS: Robert Zorec, Natalie Rasgon

Maurizio Popoli (Milano, Italy): "New mechanisms of ketamine action in acute and chronic stress models of psychopathology"

Robert Zorec (Ljubljana, Slovenia): "Astrocyte Specific Remodeling of Plasmalemmal Cholesterol Composition by Ketamine: a New Mechanism of Antidepressant Action"

Mark Rasenick (Chicago, USA): "A cellular approach to the mechanism of rapid-acting antidepressants: NMDAR independence and cAMP dependence"

Natalie Rasgon (California, USA): "Cellular and metabolic predictors of antidepressant response in major depression"

S54 "Proteostasis at the Cellular and Organismal Levels" (**Mare 3 room**)

CHAIR: Ehud Cohen

Serena Carra: "Protein quality control of biomolecular condensates: implications for Amyotrophic Lateral Sclerosis and Frontotemporal degeneration"

Ritwick Sawarkar: "Mechanisms of transcriptional response to protein misfolding"

Anat Ben-Zvi: "Gonadotropin-releasing hormone receptor related 2 (gnrr-2) regulates somatic proteostasis in *Caenorhabditis elegans*"

Ehud Cohen: "Deciphering the proteostasis response to dissimilar proteotoxic challenges"

17:10-17:30 COFFEE BREAK

17:30-19:10 **SYMPOSIA 55-58 and 40**

S55 "Postdoctoral research symposium on stress" (**Mare 1 room**)

CAHIRS: Patrizia Campolongo, Giulia Federica Mancini

Patrizia Campolongo (Sapienza University of Rome, Rome, Italy): "Bridging the preclinical-clinical boundary in stress research"

Eva Viho (Leiden University Medical Center, Leiden, Netherlands): "Stress hormones in Angelman syndrome: insights from single-cell transcriptomics and protein interaction in mouse hippocampus"

Giulia Federica Mancini (Santa Lucia Foundation, Rome, Italy): "Long-term effects of early-life adverse events: the role of sex differences"

Sebastiano Alfio Torrisi: "The arousal-based individual screening model: a step toward a better understanding of sex differences in PTSD susceptibility and resilience"

S56 "Understanding Brain Cholesterol homeostasis: from Basic Mechanisms to the Effects of Environmental and Nutritional factors" (**Mare 2 room**)

CHAIRS: Luisa Cigliano, Valentina Pallottini

Frank W. Pfrieger (INCI) CNRS, France): "Cholesterol metabolism and neurodegeneration: Niemann-Pick type C as case in point"

Aleksandra Mladenovic (University of Belgrade, Belgrade): "Brain cholesterol and dietary interventions – friends or enemies"

Marco Segatto (University of Molise, Italy): "Modulation of cholesterol biosynthetic pathway in the brain: effects on behavior and potential interference by exogenous compounds"

Luisa Cigliano (University of Naples Federico II, Italy): "Unraveling the link between Brain Cholesterol Homeostasis and Beta Amyloid Metabolism – focus on the impact of a western diet"

S57 "The role of cyclic AMP signalling in astrocyte function"
(Dubrava 2 room)

CHAIRS: Anja Teschemacher, Nina Vardjan

Anemari Horvat (University of Ljubljana, Ljubljana, Slovenia): "Distinct dynamics of astroglial Ca²⁺ and cAMP signaling and regulation of aerobic glycolysis"

Sergey Kasparov and Alexander V. Gourine (University College London, London, UK) "cAMP-mediated signalling controls lactate release by astrocytes"

Hajime Hirase (University of Copenhagen, Copenhagen; Denmark): "Second messenger signaling expressed in cortical astrocytes during fear conditioning learning"

Ryuta Koyama (The University of Tokyo, Tokyo, Japan): "Optogenetic manipulation of astrocytic cAMP to modulate memory"

S58 "The circadian clock and the sensory, integratory and executive parts of the nervous system: a keys for health" (Dubrava 1 room)

CHAIR: Paul Pevet

Ruud M. Buijs (Instituto Investigaciones Biomédicas, Universidad Nacional Autónoma de México, Mexico): "Suprachiasmatic Nucleus-Arcuate Nucleus Axis: Interaction Between Time and Metabolism"

Andries Kalsbeek (University of Amsterdam, Amsterdam, Netherlands): "Can voluntary exercise shift the muscle clock?"

Carolina Escobar (Faculty of Medicine, UNAM, Mexico): "Scheduled feeding prevents circadian disruption, loss of homeostasis and disease"

Hugh D. Piggins (Faculty of Life Sciences, University of Bristol, Bristol, UK): "Timed daily exercise remodels circadian rhythms"

S40 "Brain circuits and astroglia: unveiling causative interactions"
(Mare 3 room)

CHAIR: Dmitri Rusakov

Nathalie Rouach (College de France, Paris, France): "Astrocytes close the critical period plasticity in the visual system"

Gertrudis Perea (Cajal Institute, Madrid, Spain): "Accurate interplay between GABAergic signaling and astrocytes in prefrontal cortex improves decision-making"

Janosch Heller (Royal College of Surgeons in Ireland, Dublin, Ireland): "MicroRNA control of astrocytes in epilepsy"

Dmitri Rusakov (University College London, UK): "Long-term potentiation and inter-synaptic cross-talk"

20:00-22:00 SOCIAL DINNER

Thursday, June 2nd 2022

8:30-9:20 **Plenary Lecture #6 (Mare 1 room)**

Ira Milošević (Wellcome Centre for Human Genetics, Nuffield Department of Medicine, University of Oxford, Oxford, UK)
"Improving neurotransmission in the failing brain"

Chair: Christina Dalla

9:30-11:30 **SYMPOSIA 59-62**

S59 "Astrocyte roles in brain function and dysfunction"
(Dubrava 1 room)

CHAIRS: Rhein Parri

Sandra Henriques Vaz (Lisbon, Portugal): "Astrocytic derived adenosine is implicated on BDNF effect upon hippocampal LTP"

Rhein Parri (Birmingham, UK): "The role of astrocytes in cortical plasticity"

Giorgio Carmignoto (Padova, Italy): "Astrocyte control of excitation to Ventral Tegmental Area dopaminergic neurons affects dopamine-dependent behaviors"

Antonella Casamassa (Naples, Italy): "In brain post-ischemic plasticity, Na⁺/Ca²⁺ exchanger 1 and Ascl1 interact in microglia-dependent astrocyte differentiation"

S60 "Learning from lorcaserin lesson: is there still a future for 5-HT_{2C} receptor development and therapeutic pharmacology?"
(Mare 2 room)

CHAIRS: G. Di Giovanni, P. De Deurwaerdère

Butler Jasmine: "The deletion of SNORD115 in mice merely alters 5-HT_{2C} receptor functions but destabilizes monoaminergic neurons activity in a manner opposite to 5-HT_{2C} agonists"

Philippe De Deurwaerdere (FR): "Lorcaserin and other 5-HT_{2C} agonism-based strategies: searching beyond the dopaminergic systems"

Tatiana Pinto Morais (MT): "5-HT_{2CR} positive allosteric modulator CYD-1-79 as antiabsence epilepsy treatment"

S61 "Sensorimotor Integration and Control at the Apic: Empirical and Modeling perspectives" (Dubrava 2 room)

CHAIRS: Matteo Filippini, Ivilin Stoianov

Matteo Filippini (Bologna, Italy): "Decoding sensorimotor information from the posterior parietal cortex and neuroprosthetic applications"

Ivilin Stoianov (Padova, Italy): "Model-based Analysis of Sensorimotor Control in the PPC"

Pablo Lanillos (Nijmegen, the Netherlands): "Deep active inference for predictive sensorimotor control"

Frauke Heins (Münster, Germany): "Implicit and latent motor learning in the oculomotor system and its perceptual consequences"

Ben Hamed Suliann (Lyon, France): "Rhythmic attentional processes and functional hierarchy of vigilance and attention in the prefrontal cortex"

S62 "Protein aggregation spreading and functional alterations in neurodegeneration" (Mare 1 room)

CHAIRS: Fran Borovečki, Tiago Outerio

Karen Duff (London, UK): "Mechanisms and functional consequences of the spread of tauopathy"

Fran Borovecki (Zagreb, Croatia): "Genomic mechanisms regulating protein clearance in neurodegenerative diseases"

Chiara Zurzolo (Paris, France): "Role of Tunelling Nanotubes in the spreading of neurodegenerative diseases, and more"

Tiago Outerio (Goettingen, Germany): "Release and uptake of proteins associated with neurodegenerative diseases: similarities and differences"

11:30-11:50 COFFEE BREAK

11:50-12:20 **CONCLUSIONS** (Mare 1 room)

POSTERS

Note to poster presenters: All presenters must be present on 31st May 2022 (Tuesday) from 16:20-17:20 for discussion.

P1 “Dopamine D2 Receptors regulate spines in Striatal indirect-pathway neurons”

Alberquilla S., Merino- Serrais P., Camacho L., Martín E.D., DeFelipe J., Moratalla R.

P2 “Polymorphisms within serotonin receptor genes are associated with genetic, cerebrospinal fluid and neuropsychological biomarkers of Alzheimer’s disease”

Mirjana Babić Leko, Matea Nikolac Perković, Ena Španić, Dubravka Švob Štrac, Nikolina Pleić, Željka Vogrinc, Ivana Gunjača, Nataša Klepac, Fran Borovečki, Nela Pivac, Tatijana Zemunik, Patrick R. Hof, Goran Šimić

P3 “The association of TSH and thyroid hormones with APOE genotype”

Mirjana Babić Leko, Nikolina Pleić, Ivana Gunjača, Vesela Torlak, Ante Punda, Goran Šimić, Ozern Polašek, Tatijana Zemunik

P4 “Three different methods confirmed the association of macro and microelements with cerebrospinal fluid biomarkers of Alzheimer’s disease”

Matej Mihelčić, **Mirjana Babić Leko**, Jasna Jurasović, Matea Nikolac Perković, Ena Španić, Ankica Sekovanić, Tatjana Orct, Klara Zubčić, Lea Langer Horvat, Nikolina Pleić, Spomenka Kidemet-Piskač, Željka Vogrinc, Nela Pivac, Fran Borovečki, Patrick R. Hof, Goran Šimić

P5 “Gastrointestinal redox homeostasis and cognitive performance in the mature adult and middle-aged Tg2576”

Ana Babić Perhoč, Jan Homolak, Ana Knezović, Jelena Osmanović Barilar, Melita Šalković-Petrišić

P6 “Plastic adaptive changes induced by chronic M-channel activation in hippocampal neurons”

Lior Bar, Lia Shalom, Asher Peretz, Shira Burg, Bernard Attali

P7 “Glymphatic function in Parkinson’s disease”

Roberta Battistella, Arpine Sokratian, Chenchen Liu, M. Angela Cenci, Andrew West, Iben Lundgaard

P8 “Effects of the 5-HT2A receptor agonist TCB-2 on the neurochemistry of monoamines and amino acid neurotransmitters in the mouse striatum”

Jasmine Butler, De Deurwaerdère Philippe

P9 “The deletion of SNORD115, a potential regulator of 5-HT2C receptor expression, promotes cortico-subcortical imbalance of monoaminergic transmission in mice”

Jasmine Butler, Marty Virginie, Coutens Basile, Oumaima Chargui, Abdeslam Chagraoui, De Deurwaerdère Philippe, Guiard P. Bruno, Cavaillé Jérôme

P10 “Evaluation of procognitive activity of 5-HT1A biased ligand and muscarinic ligands in an animal model of schizophrenia”

Paulina Cieslik, Joanna M. Wieronska

P11 “Identification of a neuronal population in the hypothalamus, expressing 26RFa and orexins, involved in the regulation of glucose homeostasis”

Mélodie Devère, Yamina Cherifi, Saloua Takhlidjt, Arnaud Arabo, Julie Maucotel, Alexandre Bénani, Emmanuelle Nedelec, Benjamin Lefranc, Jérôme Leprince, Gaëtan Prevost, Nicolas Chartrel, Marie Picot

P12 “Xenapses grown on micropatterned thin films for tailored cryo-FIB milling and cryo-electron tomography of synaptic exocytic and endocytic structures”

Junxiu Duan, Ulrike Keller, Sai Krishnan, Yaroslav Tsytysyura, Nataliya Glyvuk, Jürgen Klingauf

P13 “Deranged central oxytocinergic signaling in pre-clinical models of obesity and hedonic feeding”

Barbara Eramo, Marzia Friuli, Maria Vittoria Micioni Di Bonaventura, Emanuela Micioni Di Bonaventura, Carlo Cifani, Silvana Gaetani, Adele Romano

P14 “Astrocytes exert negative modulation on hippocampal neuron excitability”

Sara Expósito, Samuel Alberquilla, Rosario Moratalla, Alfonso Araque, Eduardo Martín

P15 “Early life social experiences and dysregulation of the brain reward system: age- and sex-dependent interactions”

Jessica Bratzu, Maria Piscato, Augusta Pisanu, Patrizia Porcu, Fabrizio Sanna, **Liana Fattore**

P16 “Morphological and functional characterization of human microglia in transient structures of the developing brain”

David Menassa, Janja Kopic, **Alisa Junaković**, Željka Krsnik, Ivica Kostović

P17 “Influence of acrylamide supplementation on the population of PACAP-like immunoreactive intramural neurons of the duodenum in the pig”

Aleksandra Karpiesiuk, Katarzyna Palus

P18 “Shutdown of NHE1 is the primary event at presynapses upon chemically induced ischemia to avoid neurotoxicity”

Tim Cebulla, Vera Kästingschäfer, **Martin Kahms**, Jürgen Klingauf

P19 “Lamotrigine rescues the attenuating effect of intracerebroventricular AB1-42 infusion on spontaneous theta rhythms in anesthetized rats”

Paulina Kazmierska-Grebowska, Renata Bocian, Jacek Grębowski, Maciej Studzian

P20 “DNase Treatment Prevents Cerebrospinal Fluid Block in Early Experimental Pneumococcal Meningitis”

Marios Kritsilis, Chiara Pavan, Anna L. R. Xavier, Marta Ramos, Jane Fisher, Adam Linder, Peter Bentzer, Maiken Nedergaard, Iben Lundgaard

P21 “Early compartmentalization and laminar rhythm of future projection neuron markers during the human early cortical plate stage”

Janja Kopic, Alisa Junaković, Mladen Roko Rašin, Ivica Kostović, Željka Krsnik

P22 “Suicidal behaviour and epigenetics: changes in expression of algorithm predicted miRNA”

Katarina Kouter, Urban Alič, Tomaž Zupanc, Alja Videtič Paska

P23 “Modulation of oxytocin signalling by immunoglobulin G in stress-related disorders”

Henning Værøy, **Emilie Lahaye**, Christophe Dubessy, Magalie Benard, Marion Nicol, Saloua Takhidjt, Serguei O. Fetissov

P24 “Executive functioning and Language in primary progressive aphasia”

Laurent Lefebvre, Sandrine Basaglia-Pappas, Isabelle Simoes Loureiro

P25 “Study of the Reelin effect in cellular models of Parkinson’s disease”

Vania Macías-Calvio, Jean Gruenberg, Aurélien Roux, María Paz Marzolo

P26 “Modulation of Cricopharyngeal Quiescence During Swallowing in Healthy Normal Humans”

Timothy M. McCulloch, Michelle R. Ciucci

P27 “Differential interspecies posttranscriptional regulation of Nkx2-1 expression in the adult mammalian subthalamic nucleus”

Tila Medenica, Ema Bokulić, Goran Sedmak

P28 “Effects of cannabidiol on amphetamine and ketamine-induced behavioral profile”

Asprogerakas Michail-Zois, Brakatselos Charalampos, Ntoulas George, Tsarna Olga, Petros S. Tzimas, Eleftherios A. Petrakis, Maria Halabalaki, Leandros A. Skaltsounis, Polissidis Alexia, Antoniou Katerina

P29 “Western diet may trigger Alzheimer’s disease by insulin signaling impairment”

Anna Mietelska-Porowska, Justyna Domańska, Andrew Want, Angelika Więckowska-Gacek, Dominik Chutorański, Maciej Koperski, Urszula Wojda

P30 “Mild Traumatic Brain Injury increases mitochondrial calcium levels and upregulates mitochondrial Na⁺/Ca²⁺ Exchanger”

Rodrigo G. Mira, Waldo Cerpa

P31 “Bacterial peptidoglycan-sensing molecules are expressed in the mouse hypothalamus during specific temporal windows of postnatal development”

Cassandre Morel, Nicolas Chartrel, Rochellys Diaz Heijtz

P32 “Inhibitory transcranial magnetic stimulation reduces side effects of L-Dopa in parkinsonian rats”

Giuseppina Natale, Federica Campanelli, Gioia Marino, Valerio Chiurchiù, Paolo Calabresi, Barbara Picconi, Veronica Ghiglieri

- P33** “Cannabinoid-NMDA receptor heteromers as new therapeutic targets to combat Alzheimer’s disease”
Navarro G., Rivas-Santisteban R., Raich I., Reyes-Resina I., Franco R.
- P34** “Cognitive impairment and alterations in glutamatergic function of Fmr1 knock out rats, an animal model of the Fragile X Syndrome”
Ntoulas George, Brakatselos Charalambos, Asprogerakas Michalis-Zois, Nakas Gerasimos, Kokras Nikolaos, Polissidis Alexia, Dalla Christina, Antoniou Katerina
- P35** “Changes of insulin signaling in transgenic mice model of Alzheimer disease is reversed by galactose treatment”
Jelena Osmanovic-Barilar, Diana Kovac, Ana Knezovic, Ana Babic Perhoc, Melita Salkovic-Petrisic
- P36** “Glyphosate-induced alterations in the vasoactive intestinal peptide-like immunoreactive enteric nervous system neurons in the porcine ileum”
Katarzyna Palus, Aleksandra Karpiesiuk
- P37** “Altered Wnt/β-catenin signaling shows oncogenic effect and promotes astrocytoma progression”
Nives Pećina-Šlaus, Anja Kafka, Anja Bukovac, Petar Brlek, Niko Njirić, Denis Drmić, Vili Beroš, Antonija Jakovčević
- P38** “Cannabinoids in absence epilepsy: a health risk, a new seizure treatment, or both?”
Tatiana Pinto Morais, Manuela Radic, Francis Delicata, Vincenzo Crunelli, Giuseppe Di Giovanni
- P39** “Adaptor Protein-mediated Release Site Clearance during Compensatory Endocytosis”
Lakshmi Penothil Sunil, Sai Krishnan, Jürgen Klingauf
- P40** “Effects of environmental enrichment on modulation of behavior and Hippocampal Neuroplasticity in Huntington disease model YAC128”
Evelini Plácido, Cristine de Paula Nascimento-Castro, Priscilla Gomes Welter, Joana Gil-Mohapel, Ana Lúcia S. Rodrigues, Patricia S. Brocardo

- P41** “Mapping of neuroinflammation-induced hypoxia in the spinal cord using optoacoustic imaging”
Marta Ramos-Vega, Pontus Kjellman, Mihail Ivilinov Todorov, Tekla Maria Kykilahti, B. Thomas Bäckström, Ali Ertürk, Chris Denis Madsen, Iben Lundgaard
- P42** “Evolutionary novel genes in neurodevelopmental disorders”
Martina Rinčić, Janja Kopic, Boris Jakšić, Željka Krsnik, Fran Borovečki, Lukrecija Brečević
- P43** “Characterization of motor function in mice: Meta-analysis on CatWalk XT system output”
Ivanna Timotius, Bar Richmond-Hacham, Reinko Roelofs, Stephan von Hörsten, **Lior Bikovski**
- P44** “Interactions between trait sensitivity to performance feedback and compulsive alcohol drinking in rats”
Rafal Rygula, Agata Cieslik, Karolina Noworyta
- P45** “Use of medical cannabis by patients with fibromyalgia in Malta after cannabis legalization”
Jean Claude Scicluna, Giuseppe Di Giovanni
- P46** “Neuroprotective effect of the nutraceutical Dehydrozingerone and its symmetric Dimer in a Drosophila model of Parkinson’s disease”
Maria Dolores Setzu, Ignazia Mocchi, Maria Antonietta Dettori, Davide Fabbri, Paola Carta, Patrizia Muron, Maria Collu, Maria Antonietta Casu
- P47** “Effect of pharmacological and environmental interventions on pathological anxiety and associated neuro-inflammatory dysbalance”
Nicolas Singewald, Mohammad Ebrahimi Daran, Sinead Rooney, Maria Kharitonova, Simone B. Sartori, Bilge Ugursu, Susanne A. Wolf, Anupam Sah
- P48** “Analysis of ASC protein levels in CSF and plasma of mild cognitive impairment and Alzheimer’s disease subjects”
Ena Španić, Mirjana Babić Leko, Klara Brgić, Željka Vogrinc, Marina Boban, Fran Borovečki, Nataša Klepac, Šimić Goran

P49 “T-pattern analysis and transition matrices for the study of the behavioral abnormalities of a mouse model of Tourette’s syndrome”

Julijana Trifkovic, Giuseppe Di Giovanni, Giuseppe Crescimanno, Maurizio Casarrubea

P50 “Moderate perinatal hypoxia causes permanent reorganization of the hippocampal perineuronal nets and interneurons network in rat”

Sara Trnski, Katarina Ilić, Mihaela Bobic-Rasonja, Ivan Banovac, Matea Drlje, Sanja Darmopil, Zdravko Petanjek, Nataša Jovanov-Milošević

P51 “Determination of genotype distributions of ApoE among Slovenian patients with Alzheimer’s disease, mild cognitive impairment and subjective cognitive decline”

Nejc Nadižar, Petra Ivanuša, Jure Fabjan, Milica Gregorič Kramberger, Zvezdan Pirtosek, Jaka Bon, Damjana Rozman, **Alja Videtič Paska**

P52 “Evaluation of procognitive activity of mixed administration of NO releasers and muscarinic receptor activators, VU0357017 and VU0152100, in the novel object recognition test”

P. Cieřlik, **J. M. Wierońska**

P53 “Characterization of human Tau protein expressed in yeast”

Klara Zubčić, Ana Matičević, Goran Šimić, Mirta Boban



International Journal of
Molecular Sciences

an Open Access Journal by MDPI

IMPACT
FACTOR
5.924

Indexed in:
PubMed

Special Issue “Neuropathological Advances in Brain Disorders from MNS2022”

Guest Editors



Prof. Dr. Giuseppe Di Giovanni

1. Department of Physiology & Biochemistry,
Faculty of Medicine and Surgery, University of
Malta, Msida, Malta
2. Neuroscience Division, School of Biosciences,
Cardiff University, Cardiff, UK

Prof. Dr. Goran Šimić

Department of Neuroscience, Croatian Institute for
Brain Research, University of Zagreb School of
Medicine, Salata 12, HR-10000 Zagreb, Croatia

Submission Deadline:

31 December 2022

This Special Issue, to be published in *IJMS*, will comprise some of the best papers presented at the most recent Mediterranean Conference of Neuroscience, held in Dubrovnik, Croatia, in 2022. This SI will showcase the latest developments in the research in this field, conducted by MNS researchers.



IJMS Editorial Office
St. Alban-Anlage 66
4052, Basel, Switzerland

✉ ijms@mdpi.com
▶ www.mdpi.com/journal/ijms
🐦 @IJMS_MDPI



CNS Neuroscience & Therapeutics

Open Access

Edited By: Jun Chen

Impact factor: 5.243

2020 Journal Citation Reports (Clarivate Analytics):

73/273 (Neurosciences) 55/276 (Pharmacology & Pharmacy)

Online ISSN: 1755-5949

John Wiley & Sons Ltd



Prof Goran Simic and Prof Giuseppe Di Giovanni are the guest-editor for the SI “Interdisciplinary approaches for neuropathology 2022” in CNS Neurology and Therapeutics by Wiley. <https://onlinelibrary.wiley.com/journal/17555949> IF 5.24 It is Open Access with a fee pf €2300

This special issue of CNS Neuroscience and Therapeutics will comprise some of the best works presented at the last Mediterranean Conference of Neuroscience that will be organized in 2022 in Dubrovnik, Croatia. This follows the successful SI “Interdisciplinary approaches for neuropathology [Di Giovanni, G, Crunelli, V, Rizzolatti, G. CNS Neurosci Ther. 2018; 24: 665– 668] published on the papers presented in MNS2017. The 8th Mediterranean Neuroscience Society Meeting MNS 2022 CROATIA will be a fo-

rum to discuss modern experimental and interdisciplinary approaches that have led to important new insights on the pathogenesis and treatment of diseases of the human central and peripheral nervous systems and explore new avenues for understanding the brain. This SI will be a showcase for the latest developments of research in this field presented at MNS2022.

Have you developed a new Method that will be presented at MNS2022?



Neuroscience is continuously evolving, as technologies and analytical approaches, from the molecular and cellular levels to the systems and behavioural levels, open up previously inaccessible research questions and strategies.

We invite you to submit your work presented at MNS2022 as Review/Research manuscripts to the Journal of Neuroscience Methods by Elsevier Neuroscience Researchers <https://www.sciencedirect.com/journal/journal-of-neuroscience-methods>

MNS is editing a special issue that highlights advances in methods, analyses and practices across scales of investigation and subfields of neuroscience from the MNS members.

Editors: Christina Dalla, Goran Simic and Giuseppe Di Giovanni

Title "Mediterranean Neuroscience Society (MNS) Conference 2022".

The submission website is located at <https://www.editorialmanager.com/jneumeth/>. To ensure that all manuscripts are correctly identified for inclusion in the special issue, it is important that authors select VSI: MNS2022 when they reach the "Article Type" step in the submission process

Looking forward to reading from you!

20% Discount for Books in The Receptors Series!

Giuseppe Di Giovanni, Editor-in-Chief

The Receptors book series is a broad-based, well-respected series on all aspects of receptor neurophysiology. The series presents published volumes that comprehensively review neural receptors for a specific hormone or neurotransmitter by invited

leading specialists. Enter the code MSN2022 into the link of the series site <https://www.springer.com/series/7668> to receive a 20% discount on hardcover or ebooks on the following titles:

Ngomba: mGLU Receptors
Colombo: GABAB Receptors
Blandina: Histamine Receptors
Maroteaux: 5-HT2B Receptors
Guiard: 5-HT2A Receptors in the Central Nervous System
Borea: The Adenosine Receptors
Herrick: G-Protein-Coupled Receptor Dimers
Hashimoto: The NMDA Receptors
Blandina: Histamine Receptors



Frontiers Funding Opportunity for your MNS Symposium - \$ 1000

Dear MNS members,

As for MNS2019,

Frontiers <https://www.frontiersin.org/> has agreed to sponsor the MNS conference by supporting with \$1000 the Chairwomen/men of the Symposia that agree to organize an online Research Topic.

Please note that the Research Topic should result in 10 published papers, and this would mean suggesting a minimum of 40 Potential Contributors per Topic.

Please, fill out the attached documents sent by email if you are interested in receiving \$1000 that you can spend for example to reimburse in part the expenses of the conference for your speakers.

I look forward to receiving your proposals.

Proposal Documents

- Topic description - Please outline the subject area of your Research Topic in a brief description of 300-500 words (do not include citations) in the form attached. This description will appear online once accepted by the Chief Editor, and should fully explain both the scope and interest of your Research Topic for potential contributors. I have also provided a structural template document for the description, which you may find useful.
- List of Topic Editors - We suggest a team of around 3 Topic Editors to share the workload (handling manuscripts) and help prevent conflicts of interest during the review

process. Please provide the full name and email address of each of the Topic Editors of at least 2 editors including yourself (CVs not required). The journal also requires that Topic Editors come from at least two different institutions.

- List of Potential Contributors - Please use the Excel template attached to this email to organize your list of 40 or more potential Contributors (Mandatory fields: First name; Last name; email address). It is not necessary to have confirmed authors at this stage - this list of potential contributors is simply the people you will reach out to about your Research Topic once it is officially accepted. Once your Topic is launched, you will be able to contact them and monitor their responses through our platform.



PCO AGENCY / TECHNICAL SUPPORT



www.contres.hr

www.mns2022conference.org

Contact persons:

Maja Orsag - maja@contres.hr

Drazena Zulj - drazena@contres.hr