

Program

Sunday, June 23rd 2019

08:30-18.00	Registration	RISSANI HALL
10:00-10:20	Welcome to MNS Meeting	RISSANI ROOM
10:20-11:05	PLENARY LECTURE # 1	RISSANI ROOM

Carmen SANDI (*Lausanne, Switzerland*): “Brain mitochondria in anxiety and stress-coping behaviors”

Chair: **Patrizia CAMPOLONGO** (*Rome, Italy*)



11:10-13:10 SYMPOSIA 1-4

S1: “Wired for eating: impact of early life experiences on brain feeding circuits”

Chairs: **Sébastien BOURET** (*Lille, France*) & **Susan OZANNE** (*Cambridge, United Kingdom*)

RISSANI ROOM

Susan OZANNE (*Cambridge, United Kingdom*): “Nutritional programming of cardio-metabolic disease by maternal obesity”

Mohammed TAOUIS (*Paris, France*): “Hypothalamic miRNAs contribute to leptin-dependent central regulation of energy homeostasis”

Sébastien G. BOURET (*Lille, France*): “Early neurodevelopmental influences on obesity and Type 2 diabetes”

Georgina CANO (*Pittsburgh, USA*): “Effect of early-life high fat diet on brain circuitry controlling the sympathetic outflow to adipose tissues”

S2: “The immune/inflammatory response as a common clue in neurodegenerative disorders: central and peripheral aspects”

Chairs: **Renato BERNARDINI** (*Catania, Italy*) & **Dan FRENKEL** (*Tel Aviv, Israel*)

TINMEL ROOM

Giuseppina CANTARELLA (*Catania, Italy*): “Re-balance of systemic immune response restrains neuroinflammation in murine Alzheimer’s models”

Ronit PINKAS-KRAMARSKI (*Tel Aviv, Israel*): “Autophagy in neurodegeneration and Alzheimer’s”

Anna CARTA (*Cagliari, Italy*): “Microglia phagocytosis and cytokines production as a target for neuroprotection in Parkinson’s disease”

Dan FRENKEL (*Tel Aviv, Israel*): “The link between increase in brain cellular senescence and development of Alzheimer’s disease like pathology”

S3: “Cognitive functions for action from monkey to human”

Chair: **Patrizia FATTORI** (*Bologna, Italy*)

TICHKA ROOM

Claudio GALLETTI (*Bologna, Italy*): “The dorsomedial visual stream in the macaque and human brain”

Patrizia FATTORI (*Bologna, Italy*): “Vision for prehension in the medial parietal cortex”

Markus LAPPE (*Muenster, Germany*): “Oculomotor signals in visual space perception”

Annalisa BOSCO (*Bologna, Italy*): “Characterization of different motor strategies in reaching the 3-dimensional space in healthy and pathological conditions”

S4: “Understanding the mechanisms how stress impacts learning and memory”

Chair: **Harm J. KRUGERS** (*Amsterdam, The Netherlands*)

IMLIL ROOM

Benno ROOZENDAAL (*Nijmegen, The Netherlands*): “Basolateral amygdala noradrenergic activity enhances memory accuracy by downregulating microRNA-134 in dentate gyrus”

Maurizio POPOLI (*Milan, Italy*): “Dynamic dissection of the response to acute stress in prefrontal cortex: a matter of resilience or vulnerability”

Laurent GROC (*Bordeaux, France*): “Monitoring the interplay between stress hormone and glutamate receptors”

Harm J. KRUGERS (*Amsterdam, The Netherlands*): “Glucocorticoid effects on memory formation: Role of synapses and early life experiences”

13:20-14:20 **LUNCH**

14:20-16:20 **SYMPOSIA 5-7**

S5: “Memory mechanisms in health and disease – brain regions, cell assemblies and synaptic matrix”

Chair: Mazahir T. HASAN (*Leioa, Spain*)

RISSANI ROOM

Mazahir T. HASAN (*Leioa, Spain*): “Systems plasticity and sequential printing of memory circuits”

Ilaria BERTOCCHI (*Turin, Italy*): “Extracellular matrix and cellular interactions in neuroplasticity and memory”

Patrizia CAMPOLONGO (*Rome, Italy*): “Fear memories and posttraumatic stress disorder”

Rolf SPRENGEL (*Heidelberg, Germany*): “The impact of a leaky Mg²⁺ block of the NMDA receptor in learning behaviour”

S6: “Selective neuronal vulnerability in Parkinson disease: new insights from alpha-synuclein and dopaminergic vulnerability”

Chair: Ledia F. Hernandez (*Madrid, Spain*)

TINMEL ROOM

Ledia F. HERNANDEZ (*Madrid, Spain*): "Habitual and goal directed behavior in a Parkinson disease model"

Jochen ROEPER (*Frankfurt, Germany*): "Functional & pharmacological diversity of dopamine substantia nigra neurons"

Nicola B. MERCURI (*Rome, Italy*): "Early functional disturbances of the dopaminergic system in a rat model of PD"

Joshua A. GOLDBERG (*Jerusalem, Israel*): "Adaptive responses to alpha-synuclein in neurons at risk in Parkinson's disease"

S7: “Brain cholesterol metabolism in health and diseases”

Chair: Nathalie THIRIET (*Poitiers, France*)

TICHKA ROOM

Elsa RODRIGUES (*Lisboa, Portugal*): “CYP46A1 in neurons: it’s not just about cholesterol hydroxylation”

Sandrine BETUING (*Paris, France*): “Striatal regulation of cholesterol metabolism by CYP46A1 is associated with multiple benefits in Huntington’s disease knock-in mice models”

Valentina PALLOTTINI (*Rome, Italy*): “Sex-, age- and region-dependent alterations of brain cholesterol metabolism: potential implications for autism spectrum disorder”

Nathalie THIRIET (*Poitiers, France*): “Role of the brain cholesterol metabolism in drug addiction”

16:20-16:40 **COFFEE BREAK**

16:40-18:40 **SYMPOSIA 8-11**

S8: “Dendritic spines: from biophysics to neuropathology”

Chair: Menahem SEGAL (*Rehovot, Israel*)

RISSANI ROOM

Eduard KORKOTIAN (*Rehovot, Israel*): “Dynamics of the Store-Operated calcium channel complex STIM/Orai in dendritic spine formation and plasticity”

Carlo SALA (*Milano, Italy*): “Linking Shank role in regulating dendritic spine morphology to synaptic transmission and cognitive functions”

Martine AMMASSARI-TEULE (*Rome, Italy*): “Paradoxical remodeling of spines under cognitive challenge in a mouse model of Alzheimer Disease: evidence for neural compensation phenomena”

Noam ZIV (*Haifa, Israel*): “Dendritic spines: High-principled expectations and biological realities”

S9: “Adult neurogenesis in all its states!”

Chair: Nora ABROUS (*Bordeaux, France*)

TINMEL ROOM

Harold CREMER (*Marseille, France*): “Long-term *in vivo* imaging of olfactory bulb neurogenesis”

Emilie PACARY (*Bordeaux, France*): “Rnd2: a new player in the regulation of adult hippocampal neurogenesis”

Maria LLORENS MARTIN (*Madrid, Spain*): “Adult hippocampal neurogenesis is abundant in neurologically healthy subjects and drops sharply in Alzheimer’s disease patients”

Nora ABROUS (*Bordeaux, France*): "Influence of spatial learning on the integration of adult-born granule neurons"

S10: "Challenges in drug discovery for neurodegenerative diseases: neurochemical complexes and novel drug targets"

Chair: **K.S. JAGANNATHA RAO** (*Panama City, Republic of Panama*)

TICHKA ROOM

Muralidhar L. HEGDE (*Houston, USA*): "New discoveries on DNA repair failure as biomarker and early target for drug discoveries in neurodegenerative diseases"

Johant LAKEY-BEITIA (*Panama City, Republic of Panama*): "Synthesis and assessment of novel curcumin derivatives as potent inhibitors of inflammation and amyloid- β aggregation in Alzheimer's disease"

K.S. JAGANNATHA RAO (*Panama City, Republic of Panama*): "Studies on DNA dynamics in neurodegenerative disorders"

S11: "Brain-liver axis and glutamate homeostasis"

Chair: **Arturo ORTEGA** (*Mexico City, Mexico*)

IMLIL ROOM

Farrukh Abbas CHAUDHRY (*Oslo, Norway*): "The Slc38 family of glutamine transporters in brain-liver axis"

Fatiha CHIGR (*Beni-Mellal, Morocco*): "Effects of inorganic mercury on general homeostasis and gut-brain interaction"

Mustapha NAJIMI (*Brussels, Belgium*): "Glutamate transporter systems in the liver"

Arturo ORTEGA (*Mexico City, Mexico*): "Dynamic modulation of glutamate and glutamine transporters gene expression"

18:45-19:30

POSTER SESSION # 1

RISSANI HALL

20:00

WELCOME COCKTAIL

Monday, June 24th 2019

08.00-08:45

PLENARY LECTURE # 2

RISSANI ROOM

Yasmin HURD (*New York, USA*): “The neurobiology of cannabis — deciphering its impact as “Drug” and “Medication””

Chair: **Liana FATTORE** (*Cagliari, Italy*)



08:50-10:50

SYMPOSIA 12-14 AND OC1

S12: “Deep brain stimulation for psychiatric disorders: connections, effects, and mechanisms of the internal capsule and subthalamic nucleus targets”

Chair: **Suzanne HABER** (*Rochester, USA*)

RISSANI ROOM

Suzanne HABER (*Rochester, USA*): “Functional organization of the anterior limb of the internal capsule, ventral striatum and subthalamic nucleus: implications for deep brain stimulation”

Hagai BERGMAN (*Jerusalem, Israel*): “Physiology and deep brain stimulation of non-motor domains of the human subthalamic nucleus”

Sabrina RAVEL (*Marseille, France*): “High frequency but not low frequency deep brain stimulation of the subthalamic nucleus reduces motivation for cocaine while increasing that for apple sauce in the monkey”

Eileen JOYCE (*London, United Kingdom*): “Differential effects of ventral capsule/ventral striatum and subthalamic nucleus deep brain stimulation in obsessive compulsive disorder: clinical, cognitive and neuroimaging evidence”

S13: “Transcriptomics, genomics and cell signaling: Probing neuroscience systems biology and facilitating gene and pathway discoveries”

Chairs: **Youssef ANOUAR** (*Mont-Saint-Aignan, France*) & **Lee EIDEN** (*Bethesda, USA*)

TINMEL ROOM

Abdel G. ELKAHLOUN (*NIH, USA*): “Candesartan neuroprotection in neurodegeneration and aging; a transcriptomic analysis”

Youssef ANOUAR (*Mont-Saint-Aignan, France*): “What’s in a name? The discovery of a neuroprotective protein through microarray analysis of PC12 cell gene expression changes underlying cell survival and differentiation”

Lee E. EIDEN (*Bethesda, USA*): “Neuronal signaling through the novel cyclic AMP effector NCS-Rapgef2: microarray-driven ‘transitional transcriptome’ analysis in health and disease”

Nicolas DE ROUX (*Paris, France*): “Genetics of abnormal puberty timing, new insights in mechanisms in neurodevelopment and neurodegenerative disorders”

S14: “Molecular mechanisms of neuronal trafficking”

Chairs: Maïté MONTERO (*Mont-Saint-Aignan, France*) & **Nicolas VITALE** (*Strasbourg, France*)

IMLIL ROOM

Stéphane GASMAN (*Strasbourg, France*): « Molecular mechanisms of leptin transport across the tanycytes of median eminence”

Christophe LETERRIER (*Marseille, France*): “Actin-based structures in the axon: a nanoscale view”

Maité MONTERO (*Mont-Saint-Aignan, France*): “The multi-faceted role of Chromogranin A in the neurosecretory process”

Oussama EL-FAR (*Marseille, France*): “V-ATPase V0 subunit interactions modulate SNARE-dependent neurotransmission”

Ira MILOSEVIC (*Göttingen, Germany*): “Regulation of vesicle acidification at the neuronal synapse”

08:50-10:50

ORAL COMMUNICATIONS SESSION # 1 (1-12)

TICHKA ROOM

Chairs: Joan J. GUINOVART (*Barcelona, Spain*) & **Bernard ATTALI** (*Tel Aviv, Israel*)

OC-01 Monika WOZNIAK (*Kraków, Poland*): “The enhancement of anti-tumor effect by simultaneous administration of BRAF kinase inhibitor and mGluR1 antagonist in malignant melanoma cell line”

OC-02 Bernard ATTALI (*Tel Aviv, Israel*): “M-current inhibition in hippocampal neurons triggers at different temporal scales intrinsic and synaptic homeostasis interactions”

OC-03 Mark W. MILLER (*San Juan, Puerto Rico*): “Localization of adipokinetic-like immunoreactivity in the central nervous system of *Biomphalaria* ssp., intermediate hosts for schistosomiasis”

- OC-04** **Anna BRANCATO** (*Palermo, Italy*): “Vesicular glutamate transporter modulates behavioral resilience in rodents: advance in the search for innovative targets for depression”
- OC-05** **Jocelyne CABOCHE** (*Paris, France*): “Role of the non-coding RNA miR-1 in cocaine-induced molecular and behavioral responses”
- OC-06** **Zineb CHOUKAIRI** (*Mohammedia, Morocco*): “Study of the modulating effect of *Salvia Officinalis L.* and *Rosmarinus Officinalis L.* leaves on anxiety and neural activity”
- OC-07** **Pierluca COIRO** (*Vienna, Austria*): “Nuclear accumulation of HDAC4 in a maternal immune activation mouse model: a mediator of synaptic deficits ?”
- OC-08** **Roberta FACCHINETTI** (*Rome, Italy*): “Involvement of glial cells in the resilient or vulnerable response to acute stress: evidence from a preclinical model”
- OC-09** **Imane FROUNI** (*Montreal, Canada*): “Combined mGlu2 positive allosteric modulation and mGluR2 orthosteric stimulation attenuates dyskinesia and psychosis in the parkinsonian marmoset”
- OC-10** **Nataschia GUIDA** (*Naples, Italy*): “The neurotoxicant PCB-95 by increasing the neuronal transcriptional repressor REST down-regulates caspase-8 and increases Ripk1, Ripk3 and MLKL expression determining necroptotic neuronal death”
- OC-11** **Joan J. GUINOVART** (*Barcelona, Spain*): “Role of neuronal glycogen in memory formation and synaptic plasticity”
- OC-12** **Giuseppe PIGNATARO** (*Naples, Italy*): “Remote ischemic postconditioning: looking for new druggable targets”

10:50-11:10 **COFFEE BREAK**

11:10-13:10 **SYMPOSIA 16-19**

S16: “Glucocorticoids and the resolution of inflammation in neuropsychiatric and neurodegenerative disorders”

Chairs: Enza LACIVITA (*Bari, Italy*) & **Freddy JEANNETEAU** (*Montpellier, France*)

RISSANI ROOM

Patricia PATRICIO (*Braga, Portugal*): “Adult hippocampal cytotgenesis: behavioral correlates and function in the female brain”

Freddy JEANNETEAU (*Montpellier, France*): “Neurotrophic-priming of glucocorticoid actions in the brain: Putting context to glucocorticoid signaling”

Valerio CHIURCHIÙ (*Rome, Italy*): “Resolution of inflammation is altered in neurodegenerative diseases: novel implications for their pathogenesis and therapy”

Enza LACIVITA (*Bari, Italy*): “N-formyl peptide receptor 2 (FPR2) agonists have neuroprotective properties in animal models of Alzheimer disease”

S17: “Cellular senescence from development to ageing”

Chairs: Isabel VARELA-NIETO (*Madrid, Spain*) & Vassilis GORGOULIS (*Athens, Greece*)

TINMEL ROOM

Ignacio PALMERO (*Madrid, Spain*): “Cell senescence in physiology and pathology”

Daniel MUNOZ-ESPIN (*Cambridge, United Kingdom*): “Cellular senescence from development to ageing”

Isabel VARELA-NIETO (*Madrid, Spain*): “Cytokines IGF-1 and TGFβ2 modulate senescence during chicken inner ear development”

Athanassios KOTSINAS (*Athens, Greece*): “Escape from senescence. Role in cancer”

S18: “Epigenetic regulation of motivated behaviors”

Chair: Mohamed KABBAJ (*Florida, USA*) & Zuoxin WANG (*Nouzilly, France*)

TICHKA ROOM

Marcello WOOD (*Irvine, USA*): “Epigenetic mechanisms in the medial habenula control reinstatement of drug-seeking behavior”

Mohamed KABBAJ (*Florida, USA*): “Epigenetics of social bonding in prairie voles”

Stefania MACCARI (*Lille, France*): “Epigenetic animal model of early life stress”

Xin-Yun LU (*Georgia, USA*): “Epigenetic regulation of hippocampal *Bdnf* predicts behavioral vulnerability to chronic stress”

Zuoxin WANG (*Florida, USA*): “The prairie vole (*Microtus ochrogaster*) model for behavioral neuroscience research: neurochemical regulation of alloparental behavior”

S19: “Novel therapeutic strategies targeting the serotonin system”

Chair: Umberto SPAMPINATO (*Bordeaux, France*)

IMLIL ROOM

Kathryn A. CUNNINGHAM (*Galveston, USA*): “Strategies to identify therapeutic opportunities in the treatment of addictive disorders”

Magdalena ZANIEWSKA (*Krakow, Poland*): “The role of serotonin (5-HT)_{2C} receptor stimulation in nicotine withdrawal”

Francesc ARTIGAS (*Barcelona, Spain*): “Therapeutic potential of RNAi for the treatment of major depressive disorder”

Véronique SGAMBATO (*Bron, France*): “Role of the serotonergic system in Parkinson's disease”

Umberto SPAMPINATO (*Bordeaux, France*): “The central serotonin_{2B} receptor: control of serotonin and dopamine systems and therapeutic implications”

13:15-14:15 **LUNCH**

14:20-16:20 **SYMPOSIA 20-23**

S20: “New insights into the autistic brain: from physiopathology to therapeutic strategies”

Chairs: Viviana TREZZA (*Roma, Italy*) & Julie LE-MERRER (*Nouzilly, France*)

RISSANI ROOM

Nahit M. MUKKADES (*Istanbul, Turkey*): “Is there possibility to recover from autism?”

Stefano VICARI (*Rome, Italy*): “Autism spectrum disorder international consortium (ASDIC): Moving towards sustainable services for autism in low- and middle- income countries”

Jérôme BECKER (*Nouzilly, France*): “Facilitating glutamate mGlu4 receptor activity relieves autistic-like deficits in multiple mouse models: therapeutic implications”

Evan ELLIOTT (*Safed, Israel*): “Microbiome-Epigenome axis in the development and treatment of autism”

S21: “Modulation of brain transcriptional regulators: *in vivo* plasticity and neurological diseases”

Chairs: Luigi FORMISANO (*Naples, Italy*)

TINMEL ROOM

Fabio BENFENATI (*Genova, Italy*): “Modulation of REST activity in neurological diseases”

Mounia BENSALD (*Rabat, Morocco*): “Identification of transcription factor FEZF2 for autism spectrum disorders diagnosis”

Luigi FORMISANO (*Naples, Italy*): “Transcriptional and epigenetic regulation of NCXs in brain ischemia”

Pietro BALDELLI (*Genova, Italy*): “Physiological role of REST in homeostatic plasticity”

Michel SIMONNEAU (*Paris, France*): “Down syndrome and autism-associated DYRK1A: an interactor with the REST/NRSF-SWI/SNF chromatin remodeling complex able to deregulate gene clusters involved in the neonatal phenotypic traits”

S22: “The role of autophagy and the unfolded protein response in the mechanism of mood stabilization”

Chair: Galila AGAM (*Beer-Sheva, Israel*)

TICHKA ROOM

Changlian ZHU (*Gothenburg, Sweden*): “Neuroprotection by selective neuronal Atg7 deletion in the immature brain after insults”

Illana GOZES (*Tel-Aviv, Israel*): “Autophagy plays a key role in schizophrenia: the ADNP connection”

Galila AGAM (*Beer-Sheva, Israel*): “Common effects of lithium treatment and of knockout mice of genes related to inositol metabolism on mitochondrial function, autophagy and brain cytokine levels – prospects for novel neuropsychiatric drug discovery”

Miriam L. GREENBERG (*Wayne, USA*): “Induction of the unfolded protein response by the mood stabilizer valproate”

Sara EYAL (*Jerusalem, Israel*): “Utility of cathepsin inhibitors in treating CNS disorders”

S23: “New insights for assessing the mechanisms underlying the psychiatric disorders to improve their therapeutic approach”

Chairs: Vincenzo MICALE (*Catania, Italy*) & Kyriaki SIDIROPOULOU (*Crete, Greece*)

IMLIL ROOM

Kyriaki SIDIROPOULOU (*Crete, Greece*): “Sex similarities and differences in neurodevelopmental mouse models of schizophrenia”

Claudio D'ADDARIO (*Teramo, Italy*): “Epigenetic regulation of BDNF in bipolar disorder: link between gene and environment”

Tibor STARK (*Brno, Czech Republic*): “Effects of adolescent treatment with cannabinoids in neurodevelopmental animal model of schizophrenia”

Eva M. MARCO (*Madrid, Spain*): “Sex differences in the consequences of early life stress: neurobiological and behavioral effects”

16:20-16:40 **COFFEE BREAK**

16:40-18:40 **SYMPOSIA 24-27**

S24: “Refining the pathophysiological impact of the environment on the developing brain”

Chair: Anthony FALLUEL-MOREL (*Mont-Saint-Aignan, France*)

RISSANI ROOM

Vincent LELIÈVRE (*Strasbourg, France*): “Maternal and environmental contributions to cortical development: lessons from vasoactive intestinal peptide (VIP)-deficient mice”

Anthony FALLUEL-MOREL (*Mont-Saint-Aignan, France*): “Modulation of developmental redox homeostasis, and impact on brain circuitry”

Rochellys DIAZ HEIJTZ (*Stockholm, Sweden*): “The gut microbiota: A key regulator of neurodevelopment and behavior”

Pierre GRESSENS (*Paris, France*): “Impact of Zika virus and CMV on the developing brain”

Bruno GONZALEZ (*Rouen, France*): “Placenta-Brain axis: Effect of alcohol consumption during pregnancy on vasculo-dependent corticogenesis of the fetal brain”

S25: “Transcranial magnetic stimulation in addiction: focus on mechanisms and brain areas”

Chair: Marco DIANA (*University of Sassari, Italy*)

TINMEL ROOM

Tommi RAIJ (*Chicago, USA*): “Brain stimulation treatment atlas for cocaine addiction”

Derek BLEVINS (*New York, USA*): “The role of TMS on drug seeking behavior”

Mauro PETTORRUSO (*Chieti, Italy*): “From clinical data to neurobiology: results and hints from a double blind clinical study in cocaine addicts”

Graziella MADEO (*Baltimore, USA*): “Challenges and opportunities in creating rodent models of rTMS and other stimulation modalities”

S26: “Astrocytes: a target of the brain noradrenergic system”

Chair: Robert ZOREC (*Ljubljana, Slovenia*)

TICHKA ROOM

Giampero LEANZA (*University of Catania, Italy*): “The role of locus coeruleus-noradrenergic neurons in regulation of memory formation”

Yuriy PANKRATOV (*Coventry, United Kingdom & Kaliningrad, Russia*): “Astroglial adrenergic receptors in glia-neuron communications”

Nina VARDJAN (*Ljubljana, Slovenia*): “Adrenergic Ca²⁺ and cAMP excitability in astrocytes: effects on glucose availability and morphological plasticity”

Anja TESCHEMACHER (*Bristol, United Kingdom*): “Stimulation of central noradrenaline release by L-lactate”

S27: “New insights in the hypothalamic regulation of energy metabolism”

Chairs: Nicolas CHARTREL (*Mont-Saint-Aignan, France*) & Carole ROVERE (*Valbonne, France*)

IMLIL ROOM

Nicolas CHARTREL (*Mont-Saint-Aignan, France*): “26RFa: a neuropeptide involved in the hypothalamic regulation of energy homeostasis”

Ophélie LE THUC (*Neuherberg, Germany*): “A role for mitochondrial UCP2 in astrocytes in regulating hypothalamic NPY neurons activity to adjust feeding”

Carole ROVÈRE (*Valbonne, France*): “Impact of nutritional lipids on glial remodeling and neuronal activity in the hypothalamus”

Mohamed NAJIMI (*Beni Mellal, Morocco*): “Neurohormonal control of metabolism and food intake in stressful conditions”

18:45-19:30

PLENARY LECTURE # 3

RISSANI ROOM

Giorgio RACAGNI (*Milano, Italy*): “Innovative aspects in the mechanism of action of antipsychotic drugs”

Chair: **Giuseppe DI GIOVANNI** (*Msida, Malta*)



19:30-20:30

MNS GENERAL ASSEMBLY

RISSANI ROOM

Tuesday, June 25th 2019

08:00-08:45

PLENARY LECTURE # 4

RISSANI ROOM

Vincent PRÉVOT (*Lille, France*): "When the hypothalamus says NO, a role for nitric oxide in fertility, olfaction and cognition"

Chair: **Youssef ANOUAR** (*Mont-Saint-Aignan, France*)



08:50-10:50

SYMPOSIA 28-31

S28: "Neuroinflammation and glial plasticity in anxiety and depression: Underlying mechanisms and novel therapeutic targets"

Chair: **Luisa PINTO** (*Braga, Portugal*)

RISSANI ROOM

Raffaella MOLteni (*Milan, Italy*): "Stress-induced vulnerability for depression: role of neuroinflammation in resilience and antidepressant-treatment"

Nicolas SINGEWALD (*Innsbruck, Austria*): "Inflammation-associated alterations in innate hyperanxiety: modulatory effects of anti-inflammatory treatment"

Raz YIRMIYA (*Jerusalem, Israel*): "The therapeutic mechanism of action of electroconvulsive therapy (ECT) involves alterations in hippocampal microglia and their interaction with adult newborn neurons"

Luisa PINTO (*Braga, Portugal*): "Glial plasticity as a key mechanism underlying the pathophysiology of depression"

S29: "Neuromodulation for neurological disorders: advances in on-demand stimulation and network specific modulation"

Chair: **Ali JAHANSHAHI** (*Maastricht, The Netherlands*)

IMLIL ROOM

Hagai BERGMAN (*Jerusalem, Israel*): "Long beta episodes and closed-loop DBS therapy for movement disorders"

Abdelhamid BENAZZOUZ (*Bordeaux, France*): "STN DBS and non-motor symptoms of Parkinson's disease"

Sarah HESCHAM (*Maastricht, The Netherlands*): "Magnetothermal deep brain stimulation in freely moving mice"

Marcus JANSSEN (*Maastricht, The Netherlands*): "Deep brain stimulation for tinnitus: current evidence and future perspective"

Ali JAHANSHAH (*Maastricht, The Netherlands*): "Serotonergic neurotransmitter systems homeostasis in deep brain stimulation"

S30: "Interrogating the role of sex steroid hormones in cognition"

Chair: Mylène POTIER (*Bordeaux, France*)

TICHKA ROOM

Sakina MHAOUTY KODJA (*Paris, France*): "Role of neural sex steroid receptors in the modulation of emotional and cognitive behaviors"

Azza SELLAMI (*Tunis, Tunisia*): "Memory deficits in aging: from psychological processes to NR2b surface trafficking"

István M. ÁBRAHAM (*Pecs, Hungary*): "Rapid non-classical estradiol action on surface trafficking of neurotrophin and glutamate receptors in the plasma-membrane of live neurons"

Christina DALLA (*Goudi, Greece*): "Sex differences in learning and emotion: effects of pharmacological approaches"

S31: "Dissecting the neural circuit dysfunction at the root of mental disorders"

Chairs: Jacques BARIK (*Nice, France*) & Frank MEYE (*Utrecht, The Netherlands*)

TINMEL ROOM

Jacques BARIK (*Nice, France*): "Mesopontine cholinergic inputs to the reward system conveys depressive-like symptoms"

Anna BEYELER (*Bordeaux, France*): "Anatomical and functional diversity in amygdala and insula circuits"

Frank J. MEYE (*Utrecht, The Netherlands*): "Comfort for the troubled mind: Unravelling the neural basis for stress-feeding"

10:50-11:10 **COFFEE BREAK**

11:10-13:10 SYMPOSIA 32-35

S32: “Emerging role of HDAC inhibition in neurodegenerative diseases”

Chair: Lucio ANNUNZIATO (*Naples, Italy*)

RISSANI ROOM

Lucio ANNUNZIATO (*Naples, Italy*): “Epigenetic regulation of NCX3 transcription in brain ischemia by DREAM/HDAC4/HDAC5 complex: Role of HDAC class II inhibition”

Giuseppe RANIERI (*Florence, Italy*): “Pharmacological regulation of HDACs in the treatment of post-ischemic brain injury”

Marina PIZZI (*Brescia, Italy*) “Epi-drugs in neurodegenerative diseases: what’s new ?”

S33: “Brain & behaviour metaplasticity”

Chair: Christian CHIAMULERA (*Verona, Italy*)

TINMEL ROOM

Wickliffe ABRAHAM (*Dunedin, New Zealand*): “A role for TNF α in heterodendritic metaplasticity in both healthy and diseased hippocampus”

Rosalina FONSECA (*Lisboa, Portugal*): “Actin dynamics, neuronal activity and the maintenance of long-term potentiation”

Raffaella TONINI (*Genova, Italy*): “Plasticity of striatal endocannabinoid macromolecular complex shapes behavioral flexibility”

Shira KNAFO (*Leioa, Spain*): “Synaptic PTEN activation shifts synaptic plasticity towards depression while enhancing social behavior”

Christian CHIAMULERA (*Verona, Italy*): “Metaplastic effects of NMDA channel blockade on reward-related processes and behaviors in rats”

S34: “Beyond pathogenesis and severity in multiple sclerosis: time to promote remyelination” A symposium in honor of Pío del Río-Hortega in the centenary of his discovery of oligodendrocytes and microglia as the components of the “third element of the nervous system”

Chair: Fernando De CASTRO (*Madrid, Spain*)

TICHKA ROOM

Bibi BIELEKOVA (*Bethesda, USA*): "Biological basis of multiple sclerosis severity"

Vanja TEPAVCEVIC (*Zamudio, Spain*): " Increasing OPC recruitment to improve CNS remyelination "

Isabelle BARDOU (*Caen, France*): “Tissue plasminogen activator shows oligodendrocytes the road for remyelination”

Valentina FOSSATI (*New York, USA*): "Human iPSC-derived glia: current challenges and future perspectives".

Fernando DE CASTRO (*Madrid, Spain*): "Cross-species and age-related heterogeneity of brain OPCs: preclinical studies with human adult OPCs as the compass for fruitful clinical trials on remyelination"

S35: “New GPCR targets to improve obesity, depression and epilepsy”

Chair: Giuseppe DI GIOVANNI (*Malta*)

IMLIL ROOM

Lora K. HEISLER (*Aberdeen, United Kingdom*): “GPCR targets to improve obesity”

Evgeni PONIMASKIN (*Hannover, Germany*): “Possible role of heterodimerization between serotonin receptors 5-HT1A and 5-HT7 in depression”

Marc RASENICK (*Chicago, USA*): “A cAMP-dependent "Biosignature" shared by conventional and “rapid-acting” antidepressants, wherein the G Protein, G_s, is translocated from lipid rafts toward a facile association with adenylyl cyclase”

Gabriele DEIDDA (*Msida, Malta*): “The serotonin_{2C} receptor as a new therapeutic target to control absence seizures and their psychiatric comorbidity”

Cristiano BOMBARDI (*Bologna, Italy*): “Functional neuroanatomy of 5-HT_{2A} receptor”

13:15-14:15

LUNCH

14:20-16:20 SYMPOSIA 36-40

S36: “Glial and perivascular sensing in non-neuronal brain networking”

Chair: Jan Pieter KONSMAN (*Bordeaux, France*)

RISSANI ROOM

Agnès NADJAR (*Bordeaux, France*): “Polyunsaturated fatty acids tune microglial shaping of neuronal circuits in the developing brain”

Jan Pieter KONSMAN (*Bordeaux, France*): “Brain macrophages, from border patrollers to whistleblowers during inflammation”

Nicola MARCHI (*Montpellier, France*): “A pericyte-glia scarring develops at the capillary level in the hippocampus during seizure activity”

Jérôme BADAUT (*Bordeaux, France*): “Astrogliosis process after a juvenile mild traumatic brain injury”

Brahim NAIT OUMESMAR (*Paris, France*): “Role of axon-oligodendroglial cell synaptic connectivity in (re)-myelination”

S37: “On the role of multiple D2R heteroreceptor complexes in ADHD, schizophrenia and cocaine use disorder”

Chairs: Kjell FUXE (*Stockholm, Sweden*)

TINMEL ROOM

Fang LIU (*Toronto, Canada*): “Development of a peptide targeting dopamine transporter to improve ADHD-like deficits”

Kjell FUXE (*Stockholm, Sweden*): “Multiple D2 heteroreceptor complexes: new targets for treatment of schizophrenia”

Luca FERRARO (*Ferrara, Italy*): “NT1R-D2R heteroreceptor complexes and their antagonistic allosteric receptor-receptor interactions. Relevance for schizophrenia”

Karolina WYDRA (*Kraków, Poland*): “On the role of adenosine (A)₂A receptors and A2AR-D2R interactions in cocaine-induced reward and cocaine seeking: a pharmacological and neurochemical analysis in rats”

Dasiel BORROTO-ESCUELA (*Stockholm, Sweden*): “Disruption of A2AR-D2R heteroreceptor complexes after A2AR transmembrane 5 peptide administration enhances cocaine self-administration in rats”

S38: “Comparative approaches and neuroscience research”

Chairs: André CALAS (*Bordeaux, France*) & Yves TILLET (*Nouzilly, France*)

TICHKA ROOM

André CALAS (*Bordeaux, France*): “Comparative models in Neuroscience research: an overview from history”

Massimiliano BELTRAMO (*Nouzilly, France*): “The ewe: an animal model for comparative study of reproductive neuroendocrinology”

Loreta MEDINA (*Lleida, Catalonia, Spain*): “New perspectives on the organization of the amygdala based on evolutionary developmental neurobiology”

Jean-Louis NAHON (*Valbonne, France*): “Brain mapping and functional characterization of the human MCHR2 in a “humanized” mouse model: a novel approach to tackle species-specific loss of gene in mammals”

S39: “Microbiota-brain axis in brain development and behavior”

Chair: Sergueï FETISSOV (*Mont-Saint-Aignan, France*)

IMLIL ROOM

Sylvie RABOT (*Paris, France*): “Effect of microbiota metabolites on neuroendocrine and behavioural responses to stress”

Gérald CLARKE (*Cork, Ireland*): “Targeting the microbiome-gut-brain axis: translational implications for stress-related disorders”.

Valeriy DANILENKO (*Moscow, Russia*): “The antidepressant effect of GABA-producing Lactobacilli and Bifidobacteria”

Rochellys DIAZ HEIJTZ (*Stockholm, Sweden*): “Bacterial peptidoglycans as novel signaling molecules from microbiota to brain”

Sergueï FETISSOV (*Mont-Saint-Aignan, France*): “Microbiota and host feeding and emotion”

16:20-16:40 **COFFEE BREAK**

16:40-18:40 SYMPOSIA 40-43

S40: “Novel psychoactive substances (NPS): Mind over matter?”

Chairs: Aviv WEINSTEIN (*Ariel, Israel*) & Liana FATTORE (*Cagliari, Italy*)

RISSANI ROOM

Matteo MARTI (*Ferrara, Italy*): “Neurological, sensorimotor and cardiorespiratory alterations induced by methoxetamine and dissociative drugs in mice”

Aviv WEINSTEIN (*Ariel, Israel*): “Chronic use of synthetic cannabinoids (SCs) is associated with impairments in cognitive function, brain's structure and function, and comorbidity with depression and schizotypal personality disorder”

Maria Antonietta DE LUCA (*Cagliari, Italy*): “Intravenous self-administration of the synthetic cannabinoid receptor agonist JWH-018 in adolescent mice: neurobiological sequelae in adulthood”

Jürg GERTSCH (*Bern, Switzerland*): “Uncovering the psychoactivity and anti-inflammatory effects of a cannabinoid from liverworts associated with a legal high”

S41: “Neurobiological bases of natural and non-natural rewards”

Chair: Claudio D’Addario (*Teramo, Italy*)

TINMEL ROOM

Viviana TREZZA (*Roma, Italy*): “Neurobiology of social reward: from physiology to pathophysiology”

Claudio D’ADDARIO (*Teramo, Italy*): “Epigenetic regulation in alcoholism: preclinical and clinical evidence”

Francis CHAOULOFF (*Bordeaux, France*): “Endocannabinoids gate exercise motivation”

Stéphanie CAILLÉ (*Bordeaux, France*): “Attentional capacities can predict the motivational properties of nicotine in rodents”

S42: “Neurobiology of exercise: what have we learned from animal models?”

Chair: Mercè CORREA (*Castelló, Spain*)

TICHKA ROOM

Mercè CORREA (*Castelló, Spain*): “Modulation of dopamine function after different types of exercise: impact on selection of active vs. passive sources of reinforcement in mice”

John D. SALAMONE (*Connecticut, USA*): “Pharmacological manipulations of selection of voluntary exercise in rodents”

José Luis FERRAN (*Murcia, Spain*): “Dopaminergic effects and metabolic changes during an exercise program in a forced running wheel system in adolescent rats”

Aderbal Silva AGUIAR Junior (*Santa Catarina, Brazil*): “The mechanisms of exercise benefits in animal models of Parkinson’s disease”

S43: “Sex differences in classical and novel mechanisms involved in depression”

Chair: Christina DALLA (*Athens, Greece*)

IMLIL ROOM

Nikolaos KOKRAS (*Athens, Greece*): “Antidepressants and the HPA axis in males and females”

Mohamed KABBAJ (*Florida, USA*): “Sex differences in ketamine’s antidepressant effects”

Jodi PAWLUSKI (*Rennes, France*): “Long-term sexually differentiated effects of perinatal SSRIs on social behaviors and neuroplasticity”

Ioannis SOTIROPOULOS (*Braga, Portugal*): “Molecular underpinnings of sex-dependent hippocampal vulnerability in depression and Alzheimer’s disease”

18:45-19:45 ORAL COMMUNICATIONS SESSION # 2 (13-16) RISSANI ROOM

Chairs: Mohamed NAJIMI (*Beni Mellal, Morocco*) & Renato BERNARDINI (*Catania, Italy*)

OC-13 Michihiro IGARASHI (*Niigata, Japan*): “analysis of the growth cone reveals the new molecular markers of growing axons”

OC-14 Nouredine KAIKAI (*Marrakech, Morocco*): “Sensorimotor and neurobehavioral disorders in mice exposed *in utero* to the pesticide metam sodium”

OC-15 Georgios KOGIAS (*Erlangen-Nuremberg, Germany*): “The role of Swiprosin-1/EFhd2 in resilience to psychostimulant reward”

OC-16 Jawad LAADRAOUI (*Marrakech, Morocco*): “Intracerebroventricular administration of cigarette smoke condensate induced generalized seizures reduced by muscarinic receptor antagonist in rats”

19:50-20:50 POSTER SESSION # 2 RISSANI HALL

Wednesday, June 26th 2019

08:00-08:45

PLENARY LECTURE # 5

RISSANI ROOM

Agnès GRUART (*Seville, Spain*): “Functional circuits involved in associative learning”

Chair: Francisco **OLUCHA BORDONAU** (*Castelló, Spain*)



08:50-10:50

SYMPOSIA 44-47

S44: “Knock-in mouse models for Alzheimer’s disease: Breakthrough or more of the same?”

Chair: Gernot **RIEDEL** (*Aberdeen, Scotland*)

RISSANI ROOM

Bettina PLATT (*Aberdeen, Scotland*): “Knock-in of mutated hTAU causes behavioural and metabolic alterations, inflammation and proteostasis disturbance in a mouse model of frontotemporal dementia”

Jacques MICHEAU (*Bordeaux, France*): “Behavioral and MRI characterization of PLB2_{Tau} knock in mice: a novel mouse model of familial fronto-temporal dementia”

Szu-Han WANG (*Edinburgh, United Kingdom*): “Deciphering dysfunctional memory processes in early ageing”

Rudi D’HOOGE (*Leuven, Belgium*): “Hypersynchronous brain activity and impairments in cognitive flexibility in mouse models of Alzheimer’s disease”

S45: “New insights on endocannabinoid system-mediated synaptic transmission and plasticity in health and disease”

Chair: Roberto **COLANGELI** (*Calgary, Canada*)

TICHKA ROOM

Rosalina FONSECA (*Lisbon, Portugal*): “Temporal gating of synaptic competition in the lateral amygdala by cannabinoid receptor modulation of the thalamic input”

Jeffrey G. TASKER (*New Orleans, USA*): “Endocannabinoid modulation of stress circuits in the basolateral amygdala”

Roberto COLANGELI (*Calgary, Canada*): “Role of the endocannabinoid system in comorbid cognitive and emotional alterations associated with seizures”

Antonia MANDUCA (*Marseille, France*): “Sex-dependent consequences of prenatal cannabinoid exposure”

S46: “In search for the neural substrates underlying post-traumatic stress disorder symptomatology and vulnerability”

Chair: Muriel KOEHL (*Bordeaux, France*)

TINMEL ROOM

Aline DESMEDT (*Bordeaux, France*): “Preventing and treating PTSD-like memory by the hippocampus-dependent trauma contextualization”

Muriel KOEHL (*Bordeaux, France*): “Vulnerability to PTSD-like memory impairments induced by stress *in utero*”

Marloes HENCKENS (*Nijmegen, The Netherlands*): “The neural signature of trauma susceptibility”

S47: “Messengers of pain sensitization”

Chairs: Jacques NOEL (*Nice, France*) & Pierrick POISBEAU (*Strasbourg, France*)

IMLIL ROOM

Cynthia ABOUD (*Beirut, Lebanon*): “The effect of Relaxin on pain: behavioral and morphological data”

Géraldine GAZZO (*Strasbourg, France*): “The key role of oxytocin and early life mother-infant interactions to shape the adult nociceptive system, pain sensitivity and descending controls in the rat”

Wendy IMLACH (*Melbourne, Australia*): “Targeting spinal adenosine signalling in neuropathic pain”

Ahmed NEGM (*Nice, France*): “High fat diet causes hyperlipidemia and systemic inflammation associated with thermal hyperalgesia, role of ASIC3 channels”

Wahiba SIF-EDDINE (*Marrakech, Morocco*): “Dysfunction of the affective component of pain in ADHD animal model: effect of methylphenidate.”

10:50-11:10 **COFFEE BREAK**

11:10-13:10 **SYMPOSIA 48-51**

S48: “New perspectives on fear memory-related neuronal networks: Integrating electrophysiological, molecular and behavioral approaches”

Chair: Maria MORENA (*Calgary, Canada*)

RISSANI ROOM

Ingrid EHRLICH (*Tübingen & Stuttgart, Germany*): “Plasticity and dopaminergic modulation of intercalated cell circuits in the amygdala”

Raül ANDERO (*Barcelona, Spain*): “Opposite-sex effects in molecular and behavioral signatures of fear memory consolidation”

Maria MORENA (*Calgary, Canada*): “Endocannabinoid regulation of the impact of stress on aversive memory processes”

Steven LAVIOLETTE (*London, Canada*): “Cannabinoid signaling in the mesocorticolimbic system controls rewarding and aversive emotional memory formation”

S49: “Progress in risk factors and development of Parkinson’s disease”

Chair: Micaela MORELLI (*Cagliari, Italy*)

TINMEL ROOM

Simone ENGELENDER (*Haifa, Israel*): “Alpha-synuclein pathological role in Parkinson’s disease”

Per SVENNINGSSON (*Stockholm, Sweden*): “Increased risk of Parkinson’s disease: Focus on the role of Saposin C and GPR37 signaling pathways”

Micaela MORELLI (*Cagliari, Italy*): Role of Rhes protein in neuroinflammation and dopamine neuron toxicity in basal ganglia: age and gender dependency

Patricia GARCIA-SANZ (*Madrid, Spain*): “Cholesterol and multilamellar bodies: Lysosomal dysfunction in GBA-Parkinson disease”

S50: “ADNP and the ADNP syndrome: From gene to autism”

Chair: Illana Gozes (*Tel-Aviv, Israel*)

TICHKA ROOM

Illana GOZES (*Tel-Aviv, Israel*): “Activity-Dependent Neuroprotective Protein (ADNP) from discovery to syndrome and future treatments”

Frank KOOY (*Antwerp, Belgium*): "Clinical presentation and genotype-phenotype correlation of a complex neurodevelopmental disorder caused by mutations in *ADNP*"

Markus M. HEIMESAAT (*berlin, Germany*): "The octapeptide NAP alleviates intestinal and extra-intestinal inflammatory sequelae of acute experimental colitis"

Gidon KARMON (*Tel-Aviv, Israel*): "A novel *ADNP* mutated mouse model: deciphering the *ADNP* syndrome"

S51: "The flexibility of motor control: role of cortical and subcortical structures"

Chairs: **Stefano FERRAINA** (*Rome, Italy*) & **Tiziana M FLORIO** (*L'Aquila, Italy*)

IMLIL ROOM

Stefano FERRAINA (*Rome, Italy*): "Dynamic decision making"

Salvatore GALATI (*Lugano, Switzerland*): "Effect of dopamine depletion in thalamo-cortical activity"

Sabrina RAVEL (*Aix-Marseille, France*): "Insight on the role of the input structures of basal ganglia in the control of motivated behaviors: an electrophysiological study in the monkey"

Tiziana M FLORIO (*University of L'Aquila, Italy*): "*Basal Ganglia motor control disruption*"

13:15-14:15 **LUNCH**

14:20-16:20 **SYMPOSIA 52-54**

S52: "Developing brain in danger: critical periods of vulnerability from in-utero to adolescence"

Chair: **Carla CANNIZZARO** (*Palermo, Italy*)

RISSANI ROOM

Omry KOREN (*Safed, Israel*): "A microbiome is born: changes to the microbiome during pregnancy and infancy"

Miriam MELIS (*Cagliari, Italy*): "Functional consequences of maternal marijuana exposure on offspring dopamine system"

Carla CANNIZZARO (*Palermo, Italy*): "Mothering under the influence: evidence of a THC-sensitive phenotype in the rat offspring"

Sophie LAYÉ (*Bordeaux, France*): “Early life dietary polyunsaturated fatty acids program brain wiring and behavior later in life through their effects on microglia activity”

S53: “Systems and neural mechanisms underlying creative performance and innovation”

Chairs: Radwa KHALIL (*Bremen, Germany*), Ahmed KARIM (*Tübingen, Germany*)
& Ben GODDE (*Bremen, Germany*)

TINMEL ROOM

Thomas BORAUD (*Bordeaux, France*): “A Natural history of skills: Newt as a blueprint of the vertebrate decision making network”

Laszlo ZABORSZKY (*Newark, USA*): “Contribution of the basal forebrain to cortico-cortical network interactions”

Radwa KHALIL (*Bremen, Germany*): “How do our emotion and cognition compete to make us more creative ?”

Ahmed KARIM (*Tübingen, Germany*): “Effects of prefrontal transcranial direct current stimulation (tDCS) on creativity and decision making”

S54: “Therapeutic potential of the 5-HT_{2C} receptor agonist lorcaserin for addictive disorders”

Chair: Giuseppe DI GIOVANNI (*Msida, Malta & Cardiff, United Kingdom*)

TICHKA ROOM

Philippe DE DEURWAERDÈRE (*Bordeaux, France*): “Widespread effects of Lorcaserin converging toward the inhibition of mesoaccumbens dopaminergic pathway”

Guy HIGGINS (*Toronto, Canada*): “Lorcaserin as a treatment for substance abuse”

Massimo PIERUCCI (*Malta*): “Electrophysiological effects of lorcaserin on acute and chronic nicotine-induced changes in the LHb and VTA activity”

Charles P. FRANCE (*San Antonio, USA*): “Preclinical assessment of lorcaserin alone and in mixtures for treating substance use disorders”

16:20-16:40 **COFFEE BREAK**

16:40-18:40 **SYMPOSIA 56-59**

S56: “The neuropeptide relaxin3 system in modulating social behavior, memory, arousal and feeding”

Chair: Francisco E. OLUCHA-BORDONAU (*Castellón, Spain*)

RISSANI ROOM

Aldo DONIZETTI (*Naples, Italy*): “The nucleus incertus-relaxin3-RXFP3 in *Danio rerio*. Evolutionary comments”

Anna BLASIAK (*Krakow, Poland*): “Searching for neuronal mechanism of neuropeptide’s orexigenic action - relaxin-3 signalling in paraventricular nucleus of hypothalamus”

Mohsen NATEGH (*Tehran, Iran*): “Role of the nucleus incertus network in spatial memory: effects of lidocaine inactivation”

Andrew L. GUNDLACH (*Melbourne, Australia*): “Deciphering actions of the relaxin-3/RXFP3 system in local circuits controlling feeding, anxiety and memory: Chronic peptide and receptor depletion and activation studies

Francisco E. OLUCHA-BORDONAU (*Castellón, Spain*): “Role of the nucleus incertus and the relaxin3/rxfp3 system in social behavior”

S57: “Novel insights on the role played by endocannabinoids and their lipid analogues in neuropsychiatric/neurodegenerative disorders”

Chairs: Silvana GAETANI (*Rome, Italy*) & Paola FADDA (*Cagliari, Italy*)

TINMEL ROOM

Antonia SERRANO (*Málaga, Spain*): “Role of oleoylethanolamide on alcohol-related behaviors”

Maria SCHERMA (*Cagliari, Italy*): “Possible role of the endocannabinoid system in the physiopathology of Anorexia Nervosa”

Mariangela PUCCI (*Teramo, Italy*): “Preclinical models of binge eating behaviour: molecular evidence”

Silvana GAETANI (*Foggia, Italy*): “The selective inhibition of FAAH ameliorates cognitive decline, depressive-like symptoms and neuropathological alterations in a murine model of Alzheimer’s disease”

Nathalie THIRIET (*Poitiers, France*): « Neuroprotective effects of endocannabinoids on methamphetamine's toxicity”

S58: “Hyperkinetic movement disorders: neurobiological insights from animal models and patients”

Chair: Alessandro STEFANI (*Rome, Italy*)

TICHKA ROOM

Alessandro STEFANI (*Rome, Italy*): "STN-DBS in mammalian models and clinical practice: scenes from a marriage?"

Barbara PICCONI (*Rome, Italy*): “Novel molecular and synaptic approaches to study Levodopa-Induced Dyskinesia in an experimental model of PD”

Salvatore GALATI (*Lugano, Switzerland*): “Role of cortical homeostatic plasticity in cervical dystonia”

Alain KAELIN-LANG (*Lugano, Switzerland*): "New insight into the pathophysiology of dystonia"

S59: “Brain adaptation to environmental challenges”

Chairs: Valérie SIMONNEAUX (*Strasbourg, France*) & Khalid EL ALLALI (*Rabat, Morocco*)

IMLIL ROOM

Etienne CHALLET (*Strasbourg, France*): “Impact of metabolic challenges on brain clocks”

Sakina MHAOUTY-KODJA (*Paris, France*): “Neural effects of environmental doses of phthalates on reproductive behaviors”

Valérie SIMONNEAUX (*Strasbourg, France*): “Adaptation of reproduction to geophysical changes”

Hassan AINANI (*Rabat, Morocco*): “Intramuscular injection of β -NGF induces hypothalamic neuronal activation in the dromedary camel females (*Camelus dromedarius*)”

18:45-19:30

PLENARY LECTURE # 6

RISSANI ROOM

Khalid EL ALLALI (*Rabat, Morocco*): “Neurobiology of adaptations to desert biotope, lessons from camel and goat studies”

Chair: Paul PEVET (*Strasbourg, France*)



20:30

SOCIAL DINNER

Thursday, June 27th 2019

08:00-08:45

PLENARY LECTURE # 7

RISSANI ROOM

Hagai BERGMAN (*Jerusalem, Israel*): “Computational physiology of the basal ganglia, theory and practice”

Chair: Marc LANDRY (*Bordeaux, France*)



08:50-10:50

SYMPOSIA 60-63

S60: “Brain ischemia: from pathophysiology to treatment opportunities”

Chair: Omar TOUZANI (*Caen, France*)

IMLIL ROOM

Myriam BERNAUDIN (*Caen, France*): “A combination of stem cells and an extracellular matrix agent as a new therapeutic strategy for ischemic stroke”

Catherine LLORENS-CORTES (*Paris, France*): “Central-acting aminopeptidase a inhibitors for new treatment of hypertension: from discovery to clinical trial”

Omar TOUZANI (*Caen, France*): “Impacts of chronic arterial hypertension on the neuro-glio-vascular unit”

Ramez MOUSTAFA (*Cairo, Egypt*): “Reperfusion therapies in acute ischemic stroke: thrombolysis in the age of thrombectomy”

S61: “Insights into early cellular dysfunctions leading to synucleinopathies”

Chairs: Graziella CAPPELLETTI (*Milano, Italy*) & Antonella SCORZIELLO (*Napoli, Italy*)

RISSANI ROOM

Tiago OUTEIRO (*Göttingen, Germany*): “Deciphering the role of posttranslational modifications on α -synuclein aggregation and toxicity”

Abid OUESLATI (*Quebec, Canada*): “New cellular and animal models to study the role of α -synuclein in the pathogenesis of synucleinopathies”

Antonella SCORZIELLO (*Naples, Italy*): “Mitochondrial dysfunction in cellular and animal models mimicking Parkinson's disease”

Graziella CAPPELLETTI (Milan, Italy): “The interplay between α -synuclein and tubulin/microtubules in health and disease: from pure protein to human brain”

Arianna BELLUCCI (Brescia, Italy): “Novel players in alpha-synuclein-mediated synaptic damage: can we try system reboot in neurodegenerative synucleinopathies”

S62: “Implications of redox system functions in CNS pathogenesis”

Chairs: Amira ZAKY (Alexandria, Egypt) & Youssef ANOUAR (Mont-Saint-Aignan, France)

TICHKA ROOM

Isabelle LIHRMANN (Mont-Saint-Aignan, France): “Adaptation of ER redox function to metabolic activity through the new redoxin selenoprotein T”

Amira ZAKY (Alexandria, Egypt): “APE1/Ref-1 Redox function is implicated in Pain sensitization mechanism and involved in the global regulation of cellular miRNAs”

Muralidhar L. HEGDE (Houston, USA): “Stroke/ intracerebral hemorrhage: Opposing implications of Hemin-mediated genome damage in senescence versus ferroptosis: Prevention by iron chelator-antioxidant nanoformulation”

Loubna BOUKHZAR (Mont-Saint-Aignan, France): “Identification of an antioxidant peptide with potent in vivo anti-neurodegenerative actions”

S63: “Melatonin and the circadian system: Keys for health (Part 1: fundamental approaches)”

Chairs: Paul PEVET (France) & Nouria LAKHDAR-GHAZAL (Rabat, Morocco)

TINMEL ROOM

R.M. BUIJS (Mexico City, Mexico): “The SCN, the central player in the multi-oscillatory circadian system”

Hugh PIGGINS (Manchester, United Kingdom): “Circadian timekeeping in the lateral habenula”

Paul PÉVET (Strasbourg, France): “The hormone melatonin within the circadian system”

M. P. FELDER-SCHMITTBUHL (Strasbourg, France): “Circadian clocks, retinal health and visual function”

10:50-11:10 **COFFEE BREAK**

11:10-13:10 SYMPOSIA 64-67

S64: “Neurobiology of individual differences in human memory performance”

Chairs: Valerio SANTANGELO (*Perugia, Italy*) & Martin DRESLER (*Nijmegen, Netherlands*)

RISSANI ROOM

Carlo SESTIERI (*University of Chieti-Pescara, Italy*): “A model of parietal involvement in episodic memory retrieval”

Valerio SANTANGELO (*Perugia, Italy*): “Functional neuroimaging and resting-state connectivity of highly superior autobiographical memory”

Boris Nikolai KONRAD (*Nijmegen, The Netherlands*): “The methods and characteristics of memory champions”.

Martin DRESLER, (*Nijmegen, The Netherlands*): “Structural and functional neuroimaging of exceptional memory”.

S65 “The claustrum: development, evolution, structure, function and pathology”

Chair: José M. DELGADO-GARCÍA (*Seville, Spain*)

TINMEL ROOM

Luis PUELLES (*Murcia, Spain*): “Development of the mouse claustrum”

Anna TEREM (*Jerusalem, Israel*): “Claustricocortical circuits in attention and reinforcement “

Pierre-Hervé LUPPI (*Lyon, France*): “First demonstration that different neurons are activated during paradoxical (REM) sleep and waking using the TRAP mice method”

José M. DELGADO-GARCÍA (*Seville, Spain*): “Contribution of the claustrum to the classical eyeblink conditioning in rabbits”

Stefano MELETTI (*Modena, Italy*): “The role of the claustrum in human epilepsy “

S66: “Non-motor symptoms in Parkinson’s disease: neurobiological insights from animal models and patients”

Chair: Raffaella TONINI (*Genoa, Italy*)

TICHKA ROOM

Rosario MORATALLA (*Madrid, Spain*): "Differential synaptic remodeling by dopamine in direct and indirect striatal projection neurons in aphakia mice, a genetic model of Parkinson’s disease"

Gilad SILBERBERG (*Stockholm, Sweden*): "Dopamine regulates the synchrony between cholinergic interneurons by attenuating their recurrent inhibitory network"

Gilberto FISONE (*Stockholm, Sweden*): "A model of early Parkinson’s disease displaying cognitive and affective deficit associated with impaired circadian rhythm"

Véronique SGAMBATO (*Bron, France*): "Role of the serotonergic system in non-motor symptoms of Parkinson's disease"

Pierre-Olivier FERNAGUT (*Poitiers, France*): "Unravelling mechanisms of non-motor side effects of dopamine replacement therapy in Parkinson’s disease"

S67: “Melatonin and the circadian system: Keys for health (Part 2: Pre-clinical and clinical approaches)”

Chair: Paul PEVET (*France*) & Nouria LAKHDAR-GHAZAL (*Rabat, Morocco*)

IMLIL ROOM

Gabriella GOBBI (*Montreal, Canada*): “Drugs for insomnia beyond benzodiazepines”

Carolina ESCOBAR (*Mexico City, Mexico*): “Shift-work: is time of eating determining metabolic health? Evidence from animal models”

Nouria LAKHDAR-GHAZAL (*Rabat, Morocco*): “Circadian activity in 6-hydroxydopamine rat model of Parkinson’s Disease: Effect of noradrenaline and serotonin depletions”

Fouzia KADIRI (*Casablanca, Morocco*): “Prevalence of sleep disorders among young people of Casablanca”

Roberto PAGANELLI (*Chieti, Italy*): “Biological clocks: relevance to immune and allergic diseases”

13:15-14:15 **Lunch**

14:20-16:20 SYMPOSIA 68-71 AND OC3

S68: “Stressful life experiences don’t have the same impact on all the individuals: focus on the clinical and biological signatures underlying vulnerability and resilience and its transmission”

Chair: Annamaria CATTANEO (*London, United Kingdom*)

IMLIL ROOM

Bruno ETAIN (*Paris, France*): “Childhood trauma in bipolar disorders: clinical burden and potential moderators”

Monica AAS (*Oslo, Norway*): “Childhood trauma is associated with increased brain responses to emotionally negative as compared to positive faces in patients with psychotic disorders”

Annamaria CATTANEO (*London, United Kingdom*): “Role of miRNAs in the vulnerability or resilience to stress: novel target for preventive strategies”

Tuomas H. KVIST (*Helsinki, Finland*): “Polygenetic risk of major depressive disorder predicts childhood mental disorders”

Jari LAHTI (*Helsinki, Finland*): “Interplay of early life adversities and glucocorticoid responsive genes FKBP5 and FOXO1 on mental and metabolic health”

S69: “Drug addiction: mechanisms underlying reward and aversion”

Chair: Rami YAKA (*Jerusalem, Israel*)

TINMEL ROOM

Miriam MELIS (*Cagliari, Italy*): “Revealing endophenotypes of biased reward function”

Yonathan KUPCHIK (*Jerusalem, Israel*): “Abnormal dynorphin regulation of GABA transmission following cocaine withdrawal”

Ana João RODRIGUES (*Braga, Portugal*): “Nucleus accumbens circuits involved in reward and aversion”

Rami YAKA (*Jerusalem, Israel*): “Role of inhibitory GABAergic control of VTA dopamine neurons activity in reward and addiction”

Giulia FOIS (*Bordeaux, France*): “Locus coeruleus activation during novelty exposure gates cocaine-induced plasticity in dopamine”

S70: “Therapeutic strategies in Parkinsonism: the importance of Neuroinflammation and Aging”

Chair: Maria Trinidad HERRERO EZQUERRO (*Murcia, Spain*)

TICHKA ROOM

Maria Egle DE STEFANO (*Rome, Italy*): “Metalloproteinases in Parkinsonism and aging: friends or foes?”

Maria-Trinidad HERRERO (*Murcia, Spain*): “Synergy of aging and neuroinflammation in neurodegenerative diseases”

Rita RAISMAN-VOZARI (*Paris, France*): “Old drugs for new treatments: rol of tetracyclines in Parkinson Disease”

Mercé PALLÀS LLIBERIA (*Barcelone, Spain*): “Senescence-accelerated mice prone 8 (SAMP8), an experimental tool for drug discovery in neurodegenerative diseases”

14:20-16:20

ORAL COMMUNICATIONS SESSION # 3 (17-28)

RISSANI ROOM

Chairs: Vincent PREVOT (*Lille, France*) & Goran ŠIMIĆ (*Zagreb, Croatia*)

OC-17 Rachel LEVY (*Beer Sheva, Israel*): “The regulation of Na⁺-Ca²⁺-3 exchanger by cytosolic Phospholipase A_{2a} in amyotrophic lateral sclerosis”

OC-18 Elzbieta LORENC-KOCI (*Krakow, Poland*): “Alterations in the levels of sulfur-containing amino acids and global DNA methylation caused by glutathione deficit during early postnatal development as potential markers of schizophrenia-like behavior in adulthood”

OC-19 Hanaa MALLOUL (*Marrakech, Morocco*): “Adult inhalant abuse results in addictive-like behavior with impairments in hippocampal neurogenesis and hippocampal-dependent behaviors”

OC-20 Serenella ANZILOTTI (*Naples, Italy*): “Preconditioning induced by low doses of L-BMAA in SOD1-G93A mice modulates the ionic transporter NCX3 leading to a state refractory to ALS”

OC-21 Maria Joan NUNES (*Lisboa, Portugal*): “Identification of HDACs involved in the control of brain cholesterol metabolism”

OC-22 Klaus G. PETRY (*Bordeaux, France*): “Cognitive hippocampus vulnerability in chronic neuroinflammation”

- OC-23 Inès REYNONO-MORENO** (*Bern, Switzerland*): “Selective endocannabinoid reuptake inhibitors to treat anxiety and stress-related disorders: from basic science to translational research”
- OC-24 Erika PINTER** (*Pécs, Hungary*): “TRPA1 receptor-mediates neurotoxic effects in murine models of dementia”
- OC-25 Hugo POTHION** (*Mont-Saint-Aignan, France*): “Influence of the Selenoprotein T in peripheral nerve repair cell therapy”
- OC-26 Hicham EL ASSLI** (*Béni Mellal, Morocco*): “Status of addictions to psychoactive substances among students in the province of Béni Mellal-Morocco”
- OC-27 Dora REGLODI** (*Heidelberg, Germany*): “Accelerated systemic amyloidosis in aging mice lacking the neuropeptide pituitary adenylate cyclase activating polypeptide (PACAP)”
- OC-28 Manuela RADIĆ** (*Palermo, Italy*): “Ethosuximide action on temporal behavioural features of Wistar, NEC and GAERS rats in the hole-board test”

16:20-16:40 **COFFEE BREAK**

16:40-18:00 **ORAL COMMUNICATIONS SESSION # 4 (29-36)** **RISSANI ROOM**

Chairs: Lee E. EIDEN (*Bethesda, USA*) & Nora ABROUS (*Bordeaux, France*)

- OC-29 Ayman SALMAN** (*Jerusalem, Palestine*): “Rule vs. contextual generalization: insights into hippocampal-entorhinal involvement in posttraumatic stress disorder (PTSD)”
- OC-30 Goran ŠIMIĆ** (*Zagreb, Croatia*): “ALZENTIA™ : a non-invasive hidden-goal test for spatial orientation impairment detection in patients with possible neurocognitive disorder”
- OC-31 Rossana SIRABELLA** (*Naples, Italy*): “NCX1 and NCX3 as potential factors contributing to neurodegeneration and neuroinflammation in the A53T transgenic mouse model of Parkinson’s disease”
- OC-32 Mouna EL MEHDI** (*Mont-Saint-Aignan, France*): “Lack of 26RFA alters the central anti-hyperglycemic action of insulin in mice”
- OC-33 Valeria VALSECCHI** (*Naples, Italy*): “MiR-206 administration reduced MNs death in the brain stem of a genetic Smn^{-/-} mouse model of spinal muscular atrophy”

- OC-34** Ruud VAN DER WEEL (*Oslo, Norway*): “Only three fingers write, but the whole brain works: a high-density EEG study showing advantages of drawing over typing for learning”
- OC-35** Neide VIEIRA (*Braga, Portugal*): “Unveiling sorting nexins role in the nervous system”
- OC-36** Olfa MASMOUDI-KOUKI (*Tunis, Tunisia*): “Neuroprotection with the gliopeptide octadecaneuropeptide, ODN”

18:00-19:15 **POSTER SESSION # 3** **RISSANI HALL**

19:20-20:00 **AWARDS – TRAVEL GRANTS TO YOUNG RESEARCHERS – CONCLUSIONS**
RISSANI ROOM