





European Brain and Behaviour Society & European Behavioural Pharmacology Society

Joint Meeting

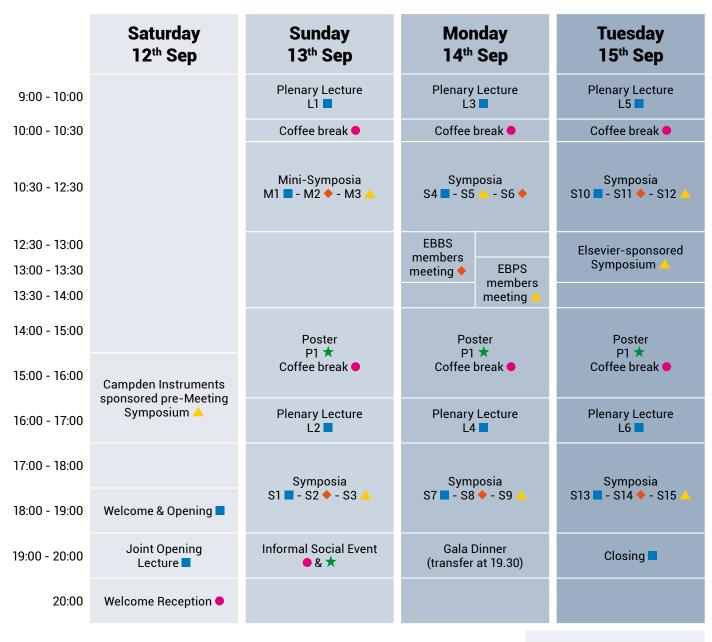
Verona, Gran Guardia Palace September, 12-15 2015

Programme

"There is no world without Verona walls, but purgatory, torture, hell itself" W. Shakespeare



Programme



Room Legenda:

- Auditorium -1 floor
- Buvette ground floor
- A Sala Convegni 3rd floor
- Loggiato ground floor
 Sala Polifunzionale 2nd floor

Welcome Letter

Dear Colleagues,

It is our great pleasure to host you at the EBBS (European Brain Behaviour Society) & EBPS (European Behavioural Pharmacology Society) Joint Meeting here in the beautiful city of Verona, Italy.

This meeting will be the largest European conference in neuroscience in 2015, the year of the EXPO, in the country hosting the EXPO. A convergence of two societies' science and the convergence of important events.

The scientific program has been thought to bring all the most recent advancements in behaviour neuroscience research from the two scientific societies, and at-large from the behavioural neuroscience community. The Joint and Local Committees had hard time to select the 15 symposia and the 24 mini-symposia papers among a large number of high quality submissions. We thank you all for your contribution.

Sessions will cover a broad spectrum of topics from basic science to applied research, from animal models to investigate brain mechanisms and behaviour to human studies. Most of the contributions are from young investigators of different nationalities and working at different countries. We could proudly say that 'European' is now limitative.

We hope to see you soon in Verona, the City of Love and Romance, undeniably a jewel Italian city. The beauty of Verona, with its architectural and historic heritage, will provide an unforgettable backdrop for the conference and we encourage you to take the time to explore its sights and wonders.

Welcome to Verona, and enjoy the conference.

Theodora Duka President of EBPS

Bruno Poucet President of EBBS

Cristiano Chiamulera Chair of the meeting



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Committees

Joint Scientific Committee

EBBS

Bruno Poucet (President of EBBS, France; Co-Chair) Igor Branchi (Italy) Tim Bussey (UK) Shira Knafo (Spain)

EBPS

Theodora Duka (President of EBPS, UK; Co-Chair) Aldo Badiani (Italy) Christelle Baunez (France) Terry Robinson (USA)

Local Organizing Committee

Cristiano Chiamulera (Italy; Chair) Alessia Auber (Italy) Giuseppe Bertini (Verona, Italy) Leonardo Chelazzi (Italy) Paolo Fabene (Italy) Carlo Alberto Marzi (Italy) Anne Jackson (UK) Harm Krugers (Netherlands) Philip Gerrard (Italy) Chiara Giuliano (UK) Silvia Savazzi (Italy) Giancarlo Tassinari (Italy)

Honorary Committee

Marina Bentivoglio (Italy) Giovanni Berlucchi (Italy) Guido Fumagalli (Italy) Giorgio Vallortigara (Italy)

Local Staff Volunteers

Thomas Zandonai (Coordinator) Federica Armani **Fabio Baccichet** Pietro Benini Giulia Benvegnu Valeria Berton Luca Casartelli Clelia Cavedini Paola Cesari Ilaria Decimo Chiara Deiana Giulia Falzone **Ruggero Galici** Nadia Graziani Chiara Mazzi Enrico Nicoletti Laura Padovani Daniele Paltrinieri Matthew Pedercini David Perruchoud

Organizing Secretariat

Renbel Group (Italy): Matteo Bellomi (Manager) Stella Galvani Luisa Boarato





Saturday, 12th September 2015

14:00 Registration Opens

15:00-17:30 *Campden Instruments sponsored pre-meeting Symposia*

Advancing cognitive testing in rodents

Sala Convegni

Proposer: Lisa Saksida (UK) Chairperson: Carola Romberg (Germany)

Hans-Peter Lipp & Sven Krackow (Switzerland) The analysis of spontaneous and cognitive behavior of group-housed mice in IntelliCage: from automated data collection to automated data analysis and statistics.

David Bannerman (UK) Uses and misuses of mazes.

Rodrigo Quian Quiroga (UK) Concept neurons in rodents using virtual reality mazes.

Charlotte Oomen (Netherlands) Cognitive testing of mice and rats using touchscreens.

Andrew Holmes (USA) Rodent touchscreens: electrophysiology and optogenetics.

Davide Zoccolan (Italy) Classification image approaches to investigate shape processing and visual object recognition in rodents.



Use September, 12-15 2015



18:00-19:00 Welcome & Opening addresses **Auditorium**

Christian Chiamulera Theodora Duka Bruno Poucet

19:00-20:00 **Joint Opening Lecture** Auditorium

Joseph LeDoux (USA) Reacting and Acting When in Harm's Way: What's the Role of Fear?

20:00 **Welcome Reception Buvette**



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Sunday, 13th September 2015

9:00-10:00 *L1: Plenary Lecture* Auditorium

Huda Akil (USA) Searching for the neurobiological and genetic basis of temperament.

10:00-10:30 *Coffee break* Buvette

10:30-12:30 Mini-Symposia

M1: System & Cognitive Neuroscience Auditorium Chairpersons: Giuseppe Bertini & Leonardo Chelazzi (Italy)

Angela Marotta (Italy) Susceptibility to the Rubber Hand Illusion is modulated by individuals' sensory suggestibility.

Ivan Camponogara (Italy) When distance matters: perceptual bias and behavioural response for approaching sounds in the peripersonal and extrapersonal space.

Javier Sanchez-Lopez (Italy) Spatiotemporal analysis of the visual cortical response during passive stimulation and spatial attention: a SSVP and ERP study for testing residual vision in hemianopic patients.

Hugo Croces-Solis (Germany) Latent learning induces plastic reorganization of sound representation in the adults midbrain.

Mohamady El-Gaby (UK) Optogenetic dissection of synaptic plasticity and memory processes.

Lisa Kinnavane (UK) Mapping anatomically verified activity patterns for novel or familiar object processing in the medial temporal lobe.

Ulrike Zimmer (Austria) ERP-evidence for inhibition-of-return (IOR) in cross-modal spatial cuing with neutral, but not emotional sound cues.

Giorgio Tommasi (Italy)

Disentangling the role of cortico-basal ganglia loops in top-down and bottom-up visual attention: an investigation of attention deficits in Parkinson's disease.



Joint Meeting



M2: Molecular Targets Sala Polifunzionale

Chairpersons: Harm Krugers (Netherlands) & Anne Jackson (UK)

Christian Muller (Germany) A new sphingolipid pathway in depression-induced alcoholism.

Alonzo Whyte (UK) Treatment with NMDA receptor positive allosteric modulator ORG-49209 improves reversal learning performance in the MAM model f schizophrenia.

Federico Moro (Italy) Chronic N-acetylcysteine treatment promotes extinction of conditioned cue-induced nicotine-seeking behaviour in the rat.

Sara Santarelli (Germany) SLC6A15, a neuronal transporter for amino acids, regulates the glutamatergic system and stress response.

Stefano Comai (Canada) The selective melatonergic partial agonist UCM-871: a potential candidate for anxiety treatment.

Olga Babaev (Germany) Neuroligin 2 deletion alters inhibitory synapse function and anxiety-associated neuronal activation in the amygdala.

Susanne Vogel (Netherlands/Germany) A stress-induced shift between memory systems in humans depends on the mineralocorticoid receptor.

Simone Guadagna (Italy) Concomitant genetic reduction of dysbindin-1 and D2L is associated with cognitive and schizophrenia-like deficits.

M3: Affect & Anxiety

Sala Convegni Chairpersons: Alessia Auber (Italy) & Philip Gerrard (Italy)

Christou Antonios (UK) BDNFVal66Met and 5-HTTLPR genotype differentially influence visual scanning of faces in young children.

Luisa Lo lacono (Italy) Childhood adversities and depression- a link through SIRT1.

Klaus Miczek (USA)

Corticotropin releasing factor-dopamine interactions in the ventral tegmental area during and after social defeat stress: how can aversive experiences strengthen cocaine self-administration.

Claire Dixon (USA)

Age-associated changes in anxiety-like behaviour are regulated by alpha-4 subunit containing nAChR expression and ERK signalling in the lateral septum.

Sabrina Lisboa (Brazil) iNOS inhibition in the medial prefrontal cortex of rats prevents the anxiogenic-like effect induced by acute stress.

Jacek Debiec (USA) Mother-to-infant transmission of trauma through social fear learning.

Sara Capoccia (Italy) Social isolation stress activates a BDNF-neuroendocrine axis in a mouse model of breast cancer.

Marco Cambiaghi (Italy) Reversal inactivation of Te2 impairs remote fear memory and BLA learned-plasticity.

> Sunday, 13th September 2015







14:00-16:00 P1: Poster Session Loggiato

Coffee break Buvette

16:00-17:00 *L2: Plenary Lecture* Auditorium

Lynn Nadel (USA) Cognitive Maps: Content and Context.

17:00-19:00 Symposia

S1: Glucocorticoid signalling at the interface of gene by environment interactions in psychiatric disorders Auditorium

Proposer: Mathias Schmidt (Germany) Chairperson Mathias Schmidt (Germany)

Nadine Provencale (France) An Integrative Disease-Relevant Multi-Omics Analysis to Predict Risk for Stress-Related Psychiatric Disorders.

Chad Dickey (USA) Progressive changes to the Hsp90 interactome provokes disease in the aging brain.

Mathias Schmidt (Germany) Ramping up stress resilience through inhibition of the GR co-chaperone FKBP51.

Nathalie Holz (Germany) The GR co-chaperone FKBP5 moderates the impact of childhood adversity on brain endophenotypes of psychiatric diseases.



Joint Meeting



S2: The neural bases of emotional body language perception

Sala Polifunzionale

Proposer: Alessio Avenanti (Italy) Chairperson: Alessio Avenanti (Italy)

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Beatrice De Gelder (Netherlands) The neural basis of emotional body perception: from individual fear to group panic.

Salvatore Aglioti (Italy) Subliminal perception of others' physical pain and pleasure: behavioural and fMRI studies.

Julie Grèzes (France) Emotional displays promote adaptive behavioural responses.

Alessio Avenanti (Italy) Superior temporal sulcus in the integration of emotional body language.

S3: Recent developments in preclinical and clinical addiction research and theory

Sala Convegni

Proposer: Taco de Vries (Netherlands) Chairperson: Yavin Shaham (USA)

Pier-Vincenzo Piazza (France) A multistep general theory of transition to addiction: behavioral and neurobiological evidence.

Anna Xuan Li (USA) Incubation of methamphetamine craving after forced and self-imposed abstinence: behavioral and neurobiological mechanisms.

Taco de Vries (Netherlands) Role of drug-induced synaptic plasticity and molecular adaptations in mPFC in nicotine and heroin relapse.

Rita Goldstein (USA) Role of the mPFC in extinction, awareness, and risk taking in cocaine addiction: fMRI studies.

19:00 Informal Social Event (& live music) Loggiato & Buvette



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Monday, 14th September 2015

9:00-10:00 L3: Plenary Lecture Auditorium

Marina Wolf (USA) Synaptic mechanisms maintaining persistent cocaine craving.

10:00-10:30 *Coffee break* Buvette

10:30-12:30 Symposia

S4: Animal models of polydipsia: new insights for compulsive disorders Auditorium

Proposers: Flores Pilar (Spain) & Trevor Robbins (UK) Chairpersons: Flores Pilar (Spain) & Trevor Robbins (UK)

Margarita Moreno (Spain) A compulsive phenotype selected by SIP: behavioural and neurochemical evidence of inhibitory control vulnerability.

Emily Hawken (UK) Mechanisms of polydipsia in rats: Clues for understanding compulsivity.

Chiara Schepisi (Italy) Excessive and costly drinking induced by dopaminergic D2/D3 agonists: relevance for psychotic polydipsia and compulsive behaviors.

Aude Belin-Rauscent (UK) From impulses to maladaptive actions: the insula is a neurobiological gate for the development of compulsive behaviours.







S5: Is adolescence a vulnerable period to the effects of environmental factors on neural plasticity and memory?

Sala Convegni

Proposer: Guillame Ferreira (France) Chairperson: Guillame Ferreira (France)

Mouna Maroun (Israel) Stress differentially regulates prefrontal cortex plasticity and extinction in the juvenile and adult animals.

Mariano Ruiz-Gayo (Spain) Deleterious effect of juvenile high-fat diet on memory and reward: a behavioral and nutrigenomic approach.

Guillaume Ferreira (France) Differential effects of juvenile and adult exposure to obesogenic diet on amygdala-dependent emotional memory: special emphasis on glucocorticoids.

Cheryl McCormick (Canada) Social instability stress in adolescence alters social behaviour and its developmental trajectory into adulthood in rats.

S6: Elucidating a role for the paraventricular nucleus of the thalamus in motivated behaviours

Sala Polifunzionale

Proposer: Shelly Flagel (USA) Chairperson: Shelly Flagel (USA)

Shelly Flagel (USA) Parsing the role of the paraventricular nucleus of the thalamus in the propensity to attribute incentive salience to reward cues.

James Morgan (USA) Neuropeptide signalling in the PVT and control of motivated behaviour.

Gavan McNally (Australia) Paraventricular thalamus in relapse to appetitive and aversive motivation.

Gregory Quirk (Puerto Rico) The role of the PVT in retrieval and maintenance of fear memories.

12:30-13:30 EBBS AGM Members meeting Sala Polifunzionale

13:00-14:00 EBPS AGM Members meeting Sala Convegni





14:00-16:00 P2: Poster Session Loggiato

Coffee break Buvette

16:00-17:00 *L4: Plenary Lecture* Auditorium

Andreas Luthi (Switzerland) Deconstructing fear.

17:00-19:00 Symposia

S7: The neurobiology of anxiety and its impact on brain function and behaviour Auditorium

Proposer: Carmen Sandi (Switzerland) Chairperson: Carmen Sandi (Switzerland)

Cornelius Gross (Italy) Neural encoding of predator fear and anxiety.

Carmen Sandi (Switzerland) Anxiety and brain energy metabolism: the role of mitochondrial function in the nucleus accumbens.

Merel Kindt (Netherlands) A behavioural neuroscience perspective on fear learning and anxiety disorders.

Oliver Robinson (UK) Neural circuitry of anxiety in humans: from adaptive to pathological states.





S8: The neurobiology of forgetting

Sala Polifunzionale

Proposer: Oliver Hardt (UK) Chairperson: Oliver Hardt (UK)

Paul Frankland (Canada) Hippocampal neurogenesis and forgetting.

Michaela Dewar (UK) Forgetting due to interference in health and amnesia.

Attila Stetak (Switzerland) Leaning and forgetting in nematodes: a conserved molecular mechanism.

Oliver Hardt (UK) Neurobiological mechanisms of long-term memory decay and its functional significance for memory.

S9: Using novel technologies to provide new insights into the mechanisms that govern addiction-related behaviours Sala Convegni

Proposer: Susan Ferguson (USA) Chairperson: Susan Ferguson (USA)

Susan Ferguson (USA) Balancing Act: What DREADD receptors reveal about the neural circuits that regulate addiction and decision-making.

Jaime McCutcheon (UK) Interrogating the role of dopamine in hedonic encoding by transforming taste stimuli.

Ingo Willuhn (Netherlands) Role of phasic dopamine signaling in the striatum in compulsive cocaine use.

Christian Luscher (Switzerland) Cellular mechanisms underling drug reinforcement, dependence and addiction.

19:30 Gala Dinner (transfer)



Tuesday, 15th September 2015

9:00-10:00 L5: Plenary Lecture Auditorium

Julia Fischer (Germany) Mouse ultrasonic vocalizations as insights into the foundations of communicative and social behaviour.

10:00-10:30 *Coffee break* Buvette

10:30-12:30 Symposia

S10: Perceptual dysfunction in neuropsychiatric disorders - translational approaches Auditorium

Proposer: Thomas Steckler (Belgium) Chairperson: John Talpos (Belgium)

Michael A Silver (USA) Visual processing and attentional deficits in schizophrenia.

Anne K Churchland (USA) Neural circuits involved in perceptual decision making in rodents.

John Talpos (Belgium) Effects of GABAergic and glutamatergic manipulations on visual processing in the rat.

Samuel Schwarzkopf Dietrich (UK) Functional architecture and tuning properties of visual cortex in autism and schizophrenia.







S11: Ecstasy, the Love Drug: acute effects of MDMA on psychosocial processes Sala Polifunzionale Proposer: Harriet de Wit (USA)

Chairperson: Harriet de Wit (USA)

Cedric Hysek (USA) Differential effects of MDMA and methylphenidate on emotion recognition, empathy and appraisal of erotic stimuli.

Valerie Curran (UK) Trust: How does MDMA influence interpersonal trust and self-referent memories?

Iain McGregor (Australia) MDMA, oxytocin and vasopressin: enhancement of sociability in rats.

Harriet de Wit (USA) Sociability: Novel ways to assess unique prosocial effects of MDMA: Speech and generosity.

S12: Neural bases of path integration in rodents

Sala Convegni Proposer: Etienne Save (France) Chairperson: Etienne Save (France)

Laure Rondi-Reig (France) How the cerebellum may monitor sensory information for spatial representation.

Kevin Allen (Germany) Probing the link between spatially selective neurons and path integration.

Etienne Save (France) Contribution of the entorhinal cortex to path integration.

Kate Jeffery (UK) The role of path integration in relating spatial reference frames.

12:30-13.30 Elsevier-sponsored Symposia

Publishing in Journals: an introduction for early career researchers

Sala Convegni

Chairpersons: Toby Charkin, Verity Brown (UK)

Verity Brown (Associate Editor of Neuroscience & Biobehavioral Reviews)

Gary Aston-Jones (Deputy Editor-in-Chief of Brain Research)

Carmen Sandi (Editor-in-Chief of Frontiers in Behavioral Neuroscience)

Lynn Nadel (Editor-in-Chief of Wiley Interdisciplinary Reviews: Cognitive Science)







14:00-16:00 P3: Poster Session Loggiato

Coffee break Buvette

16:00-17:00 *L6: Plenary Lecture* Auditorium

Gary Aston-Jones (USA) Unravelling brain circuits for reward and demand.

17:00-19:00 Symposia

S13: Signalling pathways involved in the development of autism Auditorium

Proposer: Ksenia Meyza (Poland) Chairperson: Ksenia Meyza (Poland)

Caroline Blanchard (Hawai- USA) BTBR Mouse Findings Successfully Predict Reduced Heparan Sulfate Levels in a Crucial Brain Neurogenic Zone in Autistic Children.

Christos Gkogkas (UK) Cap-dependent translation of synaptic proteins in neuropsychiatric diseases.

Laura Ricceri (Italy) Investigating early phases of neuro behavioural development in two mouse models of autism spectrum disorders.

Ksenia Meyza (Poland) Involvement of MMP-9 in pathophysiology of autism.



Joint Meeting



S14: The amygdala - beyond fear conditioning: exploring its role in reinforcement learning and cost-benefit decision-making Sala Polifunzionale

Proposer: Angela Roberts (UK)

Chairperson: Angela Roberts (UK)

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Rene Hurlemann (Germany) The induction and experience of fear in humans without a functional amygdala.

Bruno Averbeck (USA) The amygdala and stochastic reversal learning.

Amy Milton (UK) The amigdala: the kernel of appetitive memory reconsolidation.

Angela Roberts (UK) Amygdala-orbitofrontal interactions in primates: approach-avoidance decision making and their modulation by serotonin.

S15: Individual differences in animal models of drug addiction Sala Convegni

Proposer: Todd Kippin (USA) Chairperson: Todd Kippin (USA)

Todd Kippin (USA) Individual differences and hormonal bases of cocaine versus food choice in rats.

Daniele Caprioli (USA) Role drug history and withdrawal in methamphetamine versus food choice in rats.

Riccardo Avvisati (UK) Environmental modulation of drug self-administration in the rat.

Karen Szumlinski (USA) Drug consumption and neurobiological differences in methamphetamine - preferring versus - avoiding mice.

19:00-19:30 *Closing Ceremony* Auditorium EBBS-EBPS Joint Meeting Verona, Italy - September 12-15, 2015

http://ebbsebpsverona2015jointmeeting.info

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