

WEDNESDAY, 13 NOVEMBER 2024

8:30 - 9:00

Registration

9:00 - 9:30

Institutional welcome

- Joan Gómez Pallarés, Research General Director, Generalitat de Catalunya
- Joan Guàrdia Olmos, Rector, UB
- Antoni Trilla, Dean, Faculty of Medicine and Health Science, UB
- Jordi Alberch, Director, Institute of Neurosciences (UBneuro), UB

9:30 - 10:30

Opening plenary session

Manuela Piazza, Center for Mind/Brain Sciences (CIMeC), University of Trento, Italy

“NAVIGATING CONCEPTUAL SPACES: recycling the brain gps for higher-level cognition”

Chair: Ruth de Diego, UBneuro, UB, Spain

10:30 - 11:00

Coffee-break

New advances in Evolutionary Neuroscience

Chair: Joana Sierpowska, *Impact of neurological conditions on brain function and connectivity*, UBneuro, UB, Spain

11:00 - 11:35

Invited speaker: **Katherine Bryant**, Centre de Recherche en Psychologie et Neurosciences, Aix-Marseille Université, France “The temporal lobe as a locus of evolutionary change in primates”

11:35 - 12:10

Invited speaker: **Andrea Ravignani**, Sapienza University of Rome, Italy & Aarhus University, Denmark “The origins of human rhythm: A comparative approach”

12:10 - 12:30

Marta Matamala-Gomez, Brainvitge, Cognition and Brain Plasticity Unit, UBneuro, UB, Spain “Brain dynamics in the sensorimotor cortex is enhanced by auditory compared to visual inputs related to a walking body movement in healthy and clinical populations”

12:30 - 12:50

Marina López-Solà, Pain and emotion neuroscience, UBneuro, UB, Spain “Brain biomarkers of Pain: why we need them”

12:50 - 15:00

Poster session (from 1 to 30) / Lunch

Developmental Brain Research

Chair: Alberto Ortega, *Human modeling of neurological disorders*, UBneuro, UB, Spain

15:00 - 15:35

Invited Speaker: **Victor Borrell**, Institute of Neuroscience, CSIC-UMH, Spain “Cellular and genetic mechanisms of cerebral cortex development and folding”

15:35 - 15:55

Dani Del Toro, In vivo reprogramming during cortex development, UBneuro, UB, Spain “Expansion of the neocortex and behavior performance by in vivo reprogramming”

15:55 - 16:15

Gabriel Santpere, Hospital del Mar Research Institute, Barcelona “Tracing the Initial Emergence of Cortical Disorder Risks Through Gene Regulatory Network Analysis”

16:15 - 18:45

Cocktail reception / Poster session (from 31 to 60)



THURSDAY, 14 NOVEMBER 2024

8:30 - 9:00 Registration

Neurotechnologies

Chair: Cristina Malagelada, mTOR-signalling dysregulation in neurodegenerative diseases, UBneuro, UB, Spain

9:00 - 9:35 Invited speaker: **Daniel B. Rubin**, Braingate & Massachusetts General Hospital, USA
“Implantable Brain Computer Interfaces for Restoring Communication and Functional Independence for People with Paralysis”

9:35 - 10:10 Invited speaker: **Jean-Rémi King**, École Normale Supérieure. Brain & AI in Meta, France,
“Large Language Models vs Human Brain: mapping and decoding the language code in neural systems”

10:10 - 11:00 Poster session (from 61 to 78) / Coffee-break

11:00 - 11:35 Invited speaker: **Manuel Garcia-Garcia**, Ipsos, USA “Neuroscience applied to consumer and opinion research”

11:35 - 11:40 **Adam Takacs**, Bionic, Spain “Optical neuroimaging with NIRx”

11:40 - 11:45 **Esperanza Jubera**, Bitbrain, Spain “Digital Neurotherapeutics for Cognitive Deterioration”

11:45 – 12:05 Discussion: How technology can improve our knowledge of the brain

12:05 - 12:35 New generation Flash Talks

- **Lidia Mulet Pons** UBneuro, UB, Spain “Cortical thickness associated with psychological and cognitive risk factors in subjective cognitive decline”
- **Mariarca Ascione** UBneuro, UB, Spain “AN-VR-ABM: Modification of Attentional Bias Through Virtual Reality and Eye-Tracking for Improving Anorexia Nervosa Treatment. A Randomized Clinical Trial”
- **Florencia Forte** UBneuro, UB, Spain “From Genetics to Psychosocial Functioning: Unraveling the mediating roles of Cognitive Reserve, Cognition, and Negative Symptoms in First-Episode Psychosis”

12:35 - 14:30 Poster session (from 79 to 101) / Lunch

Challenges in the Pathological Brain

Chair: Guadalupe Soria, Brain Connectivity and Neuroimaging Lab, UBneuro, UB, Spain

14:30 - 15:05 Invited speaker: **Alessandro Gozzi**, Istituto Italiano di Tecnologia, Italy “Biological decoding of brain functional (dys)connectivity”

15:05 - 15:25 **Albert Giralt**, Hippocampal function in health and disease, UBneuro, UB, Spain “Translational approaches to understand schizophrenia”

15:25 - 15:45 **Judith Dominguez-Borràs**, Emotion interactions with perception and attention: amygdala function, UBneuro, UB, Spain “Subcortical emotion processing in humans”

15:45 – 16:05 **Gisela Sugranyes**, Child and adolescent psychiatry and psychology, UBneuro, UB, Spain
“Social cognition and brain development in youth in the early stages of psychosis”

16:05 - 16:25 **Angels Permy**, Escola Fàsia Sarrià, “Neurociencia y TEA”

Programme



International
Multi-Brain
Barcelona Congress
Healthy | Pathological | Artificial

THURSDAY, 14 NOVEMBER 2024

16:25 – 17:25

Closure plenary session

Chair: Mercè Masana, UBneuro, UB, Spain

*Invited Speaker: **Guillermina Lopez-Bendito**, Spanish Research Council (CSIC); Institute of Neurosciences, Miguel Hernández University, Spain “Emerging Sensory Circuits: The Interplay of Spontaneous Activity and Genetic Programs”*

17:25 – 17:30

Flash Talks and Poster Awards

17:30 – 17:40

Closing event: Future directions of scientific work and conclusions

- Ruth de Diego, Congress Chair, UBneuro, UB, Spain
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