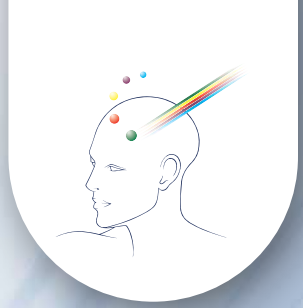


13th SYMPOSIUM OF BIAL FOUNDATION

BEHIND AND BEYOND THE BRAIN

Aquém e Além do Cérebro

The mystery of time

Casa do Médico - Porto
April 6 to 9, 2022

FUNDAÇÃO Bial
Instituição de utilidade pública
Institution of public utility

Program and Abstracts

13th SYMPOSIUM OF BIAL FOUNDATION

BEHIND AND BEYOND THE BRAIN

Aquém e Além do Cérebro

The mystery of time

Program

06.04 | Wednesday

20:00-21:15 Registration

21:15-22:00 Opening Session and
Tribute to Fernando Lopes da Silva (in Portuguese)

22:00-22:45 Opening Conference
Chairman | **Axel Cleeremans**

The perception of time in humans, brains and machines
Anil Seth

07.04 | Thursday

1st session - The arrow of time

Moderator - **Etzel Cardeña**

09:00-09:15	Opening remarks
09:15-09:45	Time, the hidden dimension **Orfeu Bertolami**
09:50-10:20	The trouble with Einstein's time **Jimena Canales**
10:25-10:55	Retrocausation and precognition: Taking time seriously **Daniel Sheehan & Patricia Cyrus**
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture The many-faceted enigma of time: A physicist's perspective **Bernard Carr**
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-15:30	Oral poster presentations - Grant holders Moderator | **Mário Simões**
15:30-16:00	Coffee, posters session and contacts with faculty
16:00-17:00	Cont. Oral poster presentations - Grant holders

08.04 | Friday

2nd session - The biology of time

Moderator - **Miguel Castelo-Branco**

09:00-09:15	Opening remarks
09:15-09:45	Predictive anticipatory activity: How do biological systems pre-spond to future events? **Julia Mossbridge**
09:50-10:20	Kinship: Life time memories **Michael Brecht**
10:25-10:55	Circadian clocks and their Impact on metabolism, aging and longevity **Joseph S. Takahashi**
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture Time as construct and implicit coding space. A neurobiological perspective **Wolf Singer**
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-16:30	Parallel Workshops (**W**)
	W 1 – Room Auditorium; there will be simultaneous translation The physics and metaphysics of time Moderator | **Axel Cleeremans** Invited presenters: **Orfeu Bertolami, Bernard Carr, Daniel Sheehan & Patricia Cyrus**
	W 2 – Room Conferências Precognition and anomalous experiences Moderator | **Caroline Watt** Invited presenter: **Julia Mossbridge**
	W 3 – Room Medioteca The experience of time in altered states of consciousness Moderator | **Stefan Schmidt** Invited presenters: **Etzel Cardeña, Marc Wittmann**
	W 4 – Room Braga Perception and memory of time Moderators | **Rui Costa, Rainer Goebel** Invited presenters: **Dean Buonomano**
17:00-18:00	Get-together Cheese & Wine

09.04 | Saturday

3rd session - The experience of time

Moderator - **Caroline Watt**

09:00-09:15	Opening remarks
09:15-09:45	The brain is a time machine: The neuroscience of time **Dean Buonomano**
09:50-10:20	Remembering the future: Facilitating the recall of future events **Chris Roe**
10:25-10:55	Visualising time in the brain: Perceiving the present and predicting the future **Jennifer Coull**
11:00-11:30	Coffee, posters session and contacts with faculty
11:30-12:15	Keynote lecture How we experience the passage of time: The body, feelings, and the self **Marc Wittmann**
12:30-13:00	Morning Discussion
13:00-14:30	Lunch
14:30-16:30	A conversation about time Moderator | **Teresa Firmino** Participants: **Jimena Canales, Jennifer Coull, Wolf Singer, Joseph S. Takahashi**

Abstracts

06.04 | Wednesday

Opening Session and Tribute to Fernando Lopes da Silva (in Portuguese)

Opening Conference
Chairman | **Axel Cleeremans**

The perception of time in humans, brains and machines
Anil Seth

Axel Cleeremans | Research Director, Consciousness, Cognition & Computation Group, Université Libre de Bruxelles, Belgium. Scientific interests: consciousness and implicit learning, models of conscious and unconscious cognition, neural network of cognitive processes.

06.04

The perception of time in humans, brains and machines

Anil Seth

We have eyes to see, ears to hear, and noses to smell - but how do we perceive the flow of time? I will explore the perception of time from the perspective of the brain as a “prediction machine”, presenting a series of studies from our laboratory that have been led by Warrick Roseboom. In our view, brains do not mark off time by the ticking of an ‘internal clock’. Our perception of time is instead generated by brain mechanisms involved in perception of things other than time itself. I will illustrate this view with a combination of experiments, computational models, and brain imaging data - setting these studies in the broader context of predictive perception and the Bayesian brain. We will see how to build machines that perceive time in a human-like way, and how time itself is not just one thing but many things.

Anil Seth | Professor of Cognitive and Computational Neuroscience, University of Sussex, and Founding Co-Director of the Sackler Centre for Consciousness Science, UK. Co-Director of the Canadian Institute for Advanced Research Azrieli Program in Brain, Mind, and Consciousness. Editor-in-Chief of the Neuroscience of Consciousness (Oxford University Press) and Wellcome Trust Engagement Fellow. Scientific interests: the understanding of the biological basis of consciousness by bringing together research across neuroscience, mathematics, artificial intelligence, computer science, psychology, philosophy and psychiatry.

Abstracts

07.04 | Thursday

1st session - The arrow of time

Moderator - **Etzel Cardeña**

Time, the hidden dimension
Orfeu Bertolami

The trouble with Einstein's time
Jimena Canales

Retrocausation and precognition: Taking time seriously
Daniel Sheehan & Patricia Cyrus

Keynote lecture
The many-faceted enigma of time: A physicist's perspective
Bernard Carr

Etzel Cardeña | Thorsen Professor of Psychology and Director of the Center for Research on Consciousness and Anomalous Psychology (CERCAP), Department of Psychology, Lund University, Sweden. Scientific interests: the psychology of anomalous experiences/non-ordinary mental expressions, including parapsychological phenomena; neurophenomenology of hypnosis, meditation and dissociation; stream of consciousness.

07.04

Time, the hidden dimension

Orfeu Bertolami

In contemporary physics space and time are intertwined entities so that kinematic and dynamical quantities can be expressed in the four-dimensional space-time. This formulation seems to contradict our every-day experience and perception, according to which space and time are distinct entities. In our lecture, we shall discuss these contradictory views and analyse the fundamental property of time, namely that it evolves from the past to the present, from the present to the future.

Orpheu Bertolami | Professor of Physics, Faculty of Sciences, University of Porto, Portugal. Scientific interests: astroparticle physics, cosmology, classical and quantum gravity, applied and fundamental physics in space, earth system physics.

The trouble with Einstein's time

Jimena Canales

Debates about time have left “a hole at the heart of physics” (Scientific American, Sept 2002) from which the discipline has yet to recover. The main problem is usually traced to Einstein’s theory of relativity, to the notion of a “block universe,” and to his famous claim that “the distinction between the past, present and future is only a stubbornly persistent illusion.” While some scientists have tried to incorporate elements of our experience of time into our explanations of the universe, others continue to claim that our sense of time is simply illusory. Can these debates be solved by science alone or are they inescapably philosophical, historical and cultural? My talk will explore the origins of this persistent quandary by focusing on the relation of physics to philosophy, history and the humanities.

Jimena Canales | Writer and Professor at the Graduate College, University of Illinois, Urbana-Champaign, USA. Author of “A Tenth of a Second” and “The Physicist and the Philosopher: Einstein, Bergson, and the Debate That Changed Our Understanding of Time”. Scientific interests: history of science.

Retrocausation and precognition: Taking time seriously

Daniel Sheehan & Patricia Cyrus

The fundamental equations of physics are time-symmetric, that is, they equally admit time-forward (retarded) and time-reversed (advanced) solutions. Our personal experience of time and its unfolding in natural processes, however, suggest a unidirectional `arrow of time.' This unidirectionality is usually attributed to the second law of thermodynamics, although other processes are probably at play also. The best documented potential exceptions to time's unidirectionality is human precognition (e.g., presentiment and premonition) in which information about the future is acquired in the present.

In this talk, we will attempt to explain precognition via retrocausation within the current paradigm of physics, starting from the following three assumptions: a) fundamental physical process are time symmetric such that both retarded and advanced potentials are present; b) the second law of thermodynamics operates in both temporal directions (if (a) is true, then (b) should follow); and c) individual conscious experiences have unique quantum correlates (e.g., wavefunctions). While these premises may appear controversial, in fact, they honor physical theory as it formally appears in its equations, taking them more seriously than is typical of the scientific community. Our analysis indicates it may be possible to construct non-sentient devices that demonstrate precognitive effects, thereby opening the phenomenon to more systematic study.

Daniel Sheehan | Professor of Physics, University of San Diego, USA. Scientific interests: plasma physics, the foundations of thermodynamics, energy technology, nanotechnology, consciousness, and the physics of time and retrocausation.

Patricia Cyrus | Siemens Energy, Orlando, USA. Has participated in multiple experimental studies over the last 20 years in the field of remote viewing (RV), often collaborating with Dale Graff, most recently in demonstrations of precognitive RV.

The many-faceted enigma of time: A physicist's perspective

Bernard Carr

The problem of time involves an overlap between physics, philosophy, psychology and neuroscience. My talk will discuss the role of time in physics but also emphasize that physics may need to expand to address issues usually regarded as being in the other domains. I will first review the mainstream physics view of time, as it arises in Newtonian theory, relativity theory and quantum theory. I will then discuss the various arrows of time, the most fundamental of which is the passage of time associated with consciousness. I will argue that this goes beyond both relativity theory and quantum theory, so that one needs some new physical paradigm to accommodate it. A new paradigm is required anyway to describe quantum gravity and this may elucidate the nature of both time and consciousness.

Bernard Carr | Professor of Mathematics and Astronomy, Queen Mary, University of London, UK. For his PhD he studied the first second of the Universe, working under Stephen Hawking. Former President of the Society for Psychical Research and current President of the Scientific and Medical Network. Scientific interests: cosmology and astrophysics - early universe, dark matter, black holes and the anthropic principle; the role of consciousness in physics - he is developing a new psycho-physical paradigm, linking matter and mind, which accommodates both normal and anomalous mental experiences.

07.04 | Thursday

Oral poster presentations - Grant holders
Moderator | **Mário Simões**

Mário Simões | Retired Professor of Psychiatry and Consciousness Sciences and Director of LIMMIT - Laboratory of Interaction Mind-Matter with Therapeutic Intention, Faculty of Medicine of Lisbon, Portugal. Scientific interests: psychology and psychophysiology of altered states of consciousness, ethnomedicine, human exceptional experiences and psychology and spirituality.

207/14 – "The role of astrocytes in complex cognitive processing"
Researchers: **João Filipe** Pedreira de **Oliveira**, Joana Correia, Luísa Pinto, Nuno Dias, Sónia Guerra Gomes, Vanessa Sardinha, Inês Caetano Campos
Institution: Life and Health Sciences Research Institute - ICVS/3B's- Government Associate Laboratory, Universidade do Minho, Braga (Portugal)

211/14 – "Mind to mind: Brain dynamics of distant focused intention for consciousness expansion"
Researchers: Anabela Ventura Carraça, Carlos Miguel Loureiro Siopa, Hugo A. Ferreira, **Carlos Moreira**
Institution: LIMMIT - Laboratory of Mind-Matter Interaction with Therapeutic Intention, Faculdade de Medicina da Universidade de Lisboa (Portugal)

251/14 – "Signal or noise? Using a psychophysical approach to investigate the effects of attention and neurofeedback training on electrocortical predictive anticipatory activity (PAA) to true random stimuli"
Researchers: Michael Franklin, Jonathn Schooler, **Stephen Baumgart**
Institution: Department of Psychology and Brain Sciences, University of California at Santa Barbara (USA)

304/14 – "The impact of music training on reading and mathematical abilities of normal and reading disabled children: a behavioral and neuroimaging longitudinal study"
Researchers: Maria de **São Luís** Vasconcelos da Fonseca e **Castro** Schöner, Christian Gaser, Daniela da Costa Coimbra, Marta Sofia Pinto Martins
Institutions: Faculty of Psychology and Educational Sciences at University of Porto, FPCEUP / Centre for Psychology at University of Porto (Portugal); Structural Brain Mapping Group/ Department of Psychiatry - Jena University Hospital (Germany)

427/14 – "Gliogenesis control of brain neuroplasticity, neurophysiology and cognitive function"
Researchers: **Luísa** Alexandra Meireles **Pinto**, Ana Rita Machado dos Santos, António Maria Restolho Mateus Pinheiro, Joana Sofia da Silva Correia, João Filipe Pedreira de Oliveira, João Miguel Bessa Peixoto, Nuno Dinis Alves, Vítor Manuel da Silva Pinto
Institutions: Life and Health Sciences Research Institute - ICVS/3B's- Government Associate Laboratory, Universidade do Minho, Braga (Portugal); Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)

30/16 - "Exploring the neural basis of motivation"
Researchers: **Ana João Rodrigues**, Nivaldo Vasconcelos, Carina Cunha, Bárbara Coimbra, Laura Silva, Patrícia Monteiro, Sónia Borges, Pedro Morgado
Institution: Life and Health Sciences Research Institute - ICVS, School of Health Sciences, University of Minho, Braga (Portugal)

44/16 – "Inducing and measuring plasticity in response control mechanisms in the human brain"
Researchers: **Alejandra Sel** de Felipe, Matthew Rushworth
Institution: Department of Experimental Psychology, University of Oxford (UK)

66/16 – "Mindfulness meditation shapes synchronization of brain networks for effective perceptual decision making"
Researcher: **Laura Marzetti**
Institution: Department of Neurosciences, Imaging and Clinical Sciences, University "G. D'Annunzio" of Chieti - Pescara (Italy)

69/16 – "Induced near-death-experiences in healthy volunteers: Phenomenology, psychophysiology and after effects. Illustration with two exceptional case studies"
Researchers: Mário Simões, **Sofia Machado** Ferreira, Ana Paula Farinha
Institution: Laboratory of Mind-Matter Interaction with Therapeutic Intention – LIMMIT, Faculdade de Medicina da Universidade de Lisboa (Portugal); Hospital de Santa Maria, Lisboa (Portugal)

70/16 – "Understanding atypical metacognition and time perception in high hypnotic suggestibility"
Researcher: **Devin Terhune**
Institution: Department of Psychology, Goldsmiths, University of London (UK)

72/16 – "A physiological examination of full-trance channeling"
Researchers: Helané Wahbeh, **Arnaud Delorme**
Institution: Institute of Noetic Sciences, Petaluma, California (USA)

88/16 – "The interoceptive self: Transcutaneous vagus nerve stimulation as a new tool to investigate heart-brain interactions"
Researchers: **Ruben Azevedo**, Emmanouil Tsakiris, Valerio Vallani
Institution: Department of Psychology, Royal Holloway, University of London (UK)

93/16 – "Synchonizing brain and heart through decelerated respiration – An EEG-ECG study investigating the effects of paced breathing"
Researchers: **Thilo Hinterberger**, Teele Tamm
Institution: Research Section of Applied Consciousness Sciences, Department of Psychosomatic Medicine, University Medical Center Regensburg (Germany)

95/16 – "Reward modulation of tactile stimulus processing"
Researchers: **Miguel Pais-Vieira**, Marlene Barros, Nuno Rosa, Nivaldo Vasconcelos, Carla Pais-Vieira
Institution: Instituto de Ciências da Saúed, Universidade Católica Portuguesa, Porto (Portugal); Life and Health Sciences Research Institute – ICVS, School of Health Sciences, University of Minho, Braga (Portugal)

147/16 – "Metarepresentations of supernatural belief and the effect of context on physiological responses and cognitions"
Researchers: **Malcolm Schofield**, Ian Baker, David Sheffield, Paul Staples
Institution: Department of Psychology, College of Life and Natural Sciences, University of Derby (UK)

157/16 – "Estranged from oneself, estranged from the others: Investigating the effect of depersonalisation on self-other mirroring"
Researchers: **Anna Ciaunica**, Harry Farmer, Ophelia Deroy, Vittorio Gallese
Institution: Institute of Philosophy Porto, University of Porto (Portugal); Institute of Cognitive Neuroscience, University College London (UK)

183/16 – "Decoding the language of 'now': EEG microstates in experienced meditators, from letters to grammar"
Researchers: **Elena Antonova**, Chrystopher Nehaniv, Martin Holding
Institutions: Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London (UK); University of Hertfordshire, Hatfield (UK)

188/16 – "Accuracy and neural correlates of blinded mediumship compared to controls"
Researchers: **Arnaud Delorme**, Helane Wahbeh
Institution: Institute of Noetic Sciences, Petaluma, California (USA)

189/16 – "Implicit beliefs in the study of experimenter effects in the replication of psi experiments: A global initiative"
Researchers: Marilyn Schlitz, **Arnaud Delorme**, Daryl Bem
Institution: Institute of Noetic Sciences, Petaluma, California (USA)

203/16 – "Extraordinary experiences and performance on psi tasks during and after meditation classes and retreats"
Researchers: Jennifer **Kim Penberthy**, Cassandra Vieten, Lori Derr, Arnaud Delorme, Jenny Matthews, Loraine Walter
Institutions: Division of Perceptual Studies, Department of Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville (USA); Institute of Noetic Sciences, Petaluma, California (USA)

207/16 – "The role of motion adaptation in bottom-up mechanisms of perceptual decision-making"
Researchers: **Miguel Castelo-Branco**, João Duarte, Ricardo Martins, Teresa Sousa, Gabriel Costa
Institution: Institute for Nuclear Sciences Applied to Health - ICNAS, University of Coimbra (Portugal)

217/16 – "Physiological indices of the deleterious effects of unrealistic media images on body satisfaction: A cross-cultural investigation"
Researchers: Clédna **Patrícia de Oliveira-Silva**, Rachel Rodgers, Óscar Gonçalves, Pedro Dias, Rosana Magalhães, Eugénia Fernandes, Bárbara Machado, Joana Coutinho, Mike Marriott
Institutions: Centre for Studies in Human Development, Faculty of Education and Psychology, Universidade Católica Portuguesa, Porto (Portugal); Department of Applied Psychology, Northeastern University, Boston (USA); Nottingham Trent University (UK)

218/16 – "Virtual bodies, real empathy: Behavioural, bodily, and neural reactivity to the observation of pain and pleasure on self and others in immersive virtual reality"
Researchers: Gaetano Tieri, Martina Fusaro, **Valentina Nicolardi**, Salvatore Maria Aglioti
Institutions: Unitelma Sapienza, Rome (Italy); Social Cognitive Neuroscience Laboratory, University of Rome "La Sapienza" (Italy)

238/16 – "When prediction errs: Examining the brain dynamics of altered saliency in self-voice perception"
Researchers: Ana P. Pinheiro, Sonja Kotz, Michael Schwartze, **Maria Amorim**
Institutions: Faculdade de Psicologia da Universidade de Lisboa (Portugal); Faculty of Psychology and Neuroscience, University of Maastricht (The Netherlands)

264/16 – "The influence of maternal bonding in neuroimmune synaptic sculpting"
Researchers: **Ana Luísa Cardoso**, João Peça, Joana Guedes, Ana Silvestre Cardoso, Ana Viegas, Elisabete Ferreiro
Institution: Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)

281/16 – "Motor Imagery in speech processing"
Researchers: Patricia Martine Adank, Helen Nuttall, **Gwijde Maegherman**
Institution: Speech Hearing and Phonetic Sciences, Division of Psychology and Language, UCL, London (UK); Department of Psychology, University of Lancaster (UK)

286/16 – "Getting the aging brain to train: A working memory and neurostimulation approach"
Researchers: Adriana Sampaio, **Ana C. Teixeira Santos**, Sandra Carvalho, Jorge Leite, Ana Raquel Mesquita, Felipe Fregni
Institutions: Psychology Research Center (CIPsi), School of Psychology, University of Minho, Braga (Portugal); Spaulding-Labuschange Neuromodulation Center, Spaulding Rehabilitation Hospital & Massachusetts General Hospital/Harvard Medical School, Charlestown (USA)

312/16 – "Mind-body interactions in writing (M-BW): Psychophysiological and linguistic synchronous correlates of expressive writing"
Researchers: Rui Alves, Teresa Limpo, Sara Costa, Ana Sousa, Mónica Moreira, José Leal, **Teresa Jacques**
Institution: Neurocognition and Language Research Group, Faculty of Psychology and Education Sciences of the University of Porto (Portugal); Faculty of Sciences of the University of Porto, (Portugal)

329/16 – "Exploring the correlates and nature of subjective apparitional experiences"
Researchers: **Christine Simmonds-Moore**, Donadrian Rice, Chase O'Gwin
Institution: Psychology Department, University of West Georgia, Carrollton (USA)

346/16 – "The mind possessed project: Mapping the varieties of possession experiences"
Researchers: **Miguel Farias**, Romara Delmonte
Institution: Centre for Research in Psychology, Behaviour and Achievement, Coventry University (UK)

50/18 – "Changes in the temporal width of the present moment after meditation"
Researchers: Marc Wittmann, Stefan Schmidt, Karin Meissner, **Damisela Linares Gutiérrez**
Institutions: Institute for Frontier Areas of Psychology and Mental Health, Freiburg (Germany); University Clinic Freiburg (Germany); Coburg University of Applied Sciences (Germany)

82/18 – "Neuropsychological and cognitive-perceptual characteristics of mediums and psychics"
Researcher: **Ken Drinkwater**
Institution: Health, Psychology and Communities, Manchester Metropolitan University (UK)

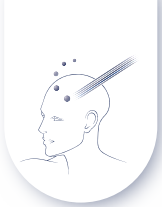
113/18 – "Psi in everyday social interaction"
Researcher: Robin Wooffitt, **Alicia Fuentes-Calle**
Institution: Anomalous Experiences Research Unit, Department of Sociology, University of York (UK)

138/18 – "The neural signatures of leadership: Two-brain directed synchronization during eye contact"
Researchers: **Caroline Di Bernardi Luft,** Isabelle Mareschal
Institution: School of Biological and Chemical Sciences, Queen Mary University of London (UK)

230/18 – "Unraveling the mechanisms behind automatic and emotional control: Psychophysiological, cortical excitability and functional connectivity measures"
Researchers: Ignacio Obeso, Jose Ángel Pineda Pardo, Claudia Ammann, Lina Guida, Ursula Alcañas, **David Mata Marín**
Institution: Centro Integral en Neurociencias A. C. – CINAC, Fundación Investigción HM Hospitales, Madrid (Spain)

261/18 – "Phenomenological experience and neurophysiological correlates of shamanic trance in healthy individuals"
Researchers: Olivia Gosseries, **Marie Nolwenn**
Institution: GIGA research center, GIGA-Consciousness, University of Liège (Belgium)

284/18 – "Testing a neurophysiological model of inner speech processing"
Researcher: **Bo Yao**
Institution: Division of Neuroscience and Experimental Psychology, University of Manchester (UK)



Abstracts

08.04 | Friday

2nd session - The biology of time

Moderator - **Miguel Castelo-Branco**

Predictive anticipatory activity: How do biological systems pre-spond to future events?
Julia Mossbridge

Kinship: Life time memories
Michael Brecht

Circadian clocks and their Impact on metabolism, aging and longevity
Joseph S. Takahashi

Keynote lecture
Time as construct and implicit coding space.
A neurobiological perspective
Wolf Singer

Miguel Castelo-Branco | Professor of Biostatistics and Visual Sciences and Director of CIBIT at ICNAS, University of Coimbra, Portugal. Scientific interests: sensory and perceptual neuroscience, and neurobiology of decision-making, social cognition and reward in health and disease.

Predictive anticipatory activity: How do biological systems pre-spond to future events?

Julia Mossbridge

Physical systems are generally time symmetric and retrocausal effects have been demonstrated in quantum systems. However, we normally assume that at least for biological and psychological systems, events in what we call the future cannot produce influences in what we call the past. This assumption seems ripe for questioning, given data showing the biological systems - so far, humans and birds - seem to pre-spond reliably to events produced by random number generators. This talk will be nearly evenly divided between an overview of the evidence and a discussion of potential mechanisms.

Julia Mossbridge | Affiliate Professor, Department of Physics and Biophysics, University of San Diego, CA, and Fellow, Institute of Noetic Sciences, Petaluma, USA. 2014 recipient of the Charles Honorton Integrative Contributions Award from the Parapsychology Association. Scientific interests: the relationship between psychological and physical time, unconscious access to future events, training people to improve their future orientation.

Kinship: Life time memories

Michael Brecht

According to Hamilton's inclusive fitness hypothesis, kinship is an organizing principle of social behavior. There is abundant behavioral evidence supporting this hypothesis, including the ability to recognize kin and the adjustment of behavior based on kin preference with respect to altruism, attachment and care for offspring in insect societies. Despite the fundamental importance of kinship behavior, the underlying neural mechanisms are poorly understood. We repeated behavioral experiments originally performed by Hepper on behavioral preference of rats for their kin. Consistent with Hepper's work, we find a developmental time course for kinship behavior, where rats prefer interactions with their siblings at young ages and express non-sibling preferences at older ages. In probing the brain areas responsible for this behavior, we find that aspiration lesions of the lateral septum but not control lesions of cingulate cortices eliminate the behavioral preference in young animals for their siblings and in older rats for non-siblings. We then presented awake and anaesthetized rats with odors and calls of age- and status-matched kin (siblings and mothers) and non-kin (non-siblings and non-mothers) conspecifics, while performing in vivo juxta-cellular and whole-cell patch-clamp recordings in the lateral septum. We find multisensory (olfactory and auditory) neuronal responses, whereby neurons typically responded preferentially but not exclusively to individual social stimuli. Non-kin-odor responsive neurons were found dorsally, while kin-odor responsive neurons were located in ventrally in the lateral septum. To our knowledge such an ordered representation of response preferences according to kinship has not been previously observed and we refer this organization as nepotopy. Nepotopy could be instrumental in reading out kinship from broadly tuned responses and in the generation of differential behavior according to kinship. Thus, our results are consistent with a role of the lateral septum in organizing mammalian kinship behavior.

Michael Brecht | Professor of Systems Neuroscience, Humboldt University Berlin. Coordinator of the Bernstein Center for Computational Neuroscience Berlin, Germany. Scientific interests: memory formation, social touch, social neuroscience and biological approaches to brain function.

Circadian clocks and their impact on metabolism, aging and longevity

Joseph S. Takahashi

Genetic analysis of circadian behavior in mice has revealed that the molecular basis of circadian clocks involves an autoregulatory transcriptional network that oscillates with a 24-hour periodicity. In mammals, the discovery of “clock genes” led to the realization that circadian clocks are cell autonomous and are expressed in the majority of cells and tissues in the body. The master circadian pacemaker located in the hypothalamic suprachiasmatic nucleus sits at the top of a hierarchy of oscillators in the body, but peripheral oscillators can and do respond to more proximal signals such as nutrients and metabolites. Thus, the “circadian system” in mammals is a multi-oscillatory hierarchy. The lecture will discuss recent discoveries on the neuronal network in the suprachiasmatic nucleus. In addition to controlling the timing of behavior and physiology, the clock gene network interacts directly with many other pathways in the cell. These include metabolism, immune function, cardiovascular function and cell growth to name a few. With respect to metabolism, the timing of nutrient consumption is critical, and we and others have shown that restricting the timing of feeding has many health benefits. The lecture will also discuss the role of time-restricted feeding as a critical factor for aging, health span and longevity.

Joseph S. Takahashi | Professor and Chair, Department of Neuroscience, Howard Hughes Medical Institute, University of Texas Southwestern Medical Center, Dallas, USA. Scientific interests: genetics and molecular neuroscience of circadian clocks in mammals, genetic basis of behaviour, healthy aging and longevity.

Time as construct and implicit coding space. A neurobiological perspective

Wolf Singer

Curiously, organisms lack specialized receptor systems for the perception of the fundamental dimensions in which they evolve, for space and time. These categories, considered by many as constitutive properties of reality, are constructs generated by cognitive processes in the brain. These constructs are inferred from the evaluation of spatial relations among objects in case of space and of temporal relations among events in the case of time. The evaluation of temporal relations is of immense importance for organisms as it allows them to derive predictions for future conditions by discovering statistical contingencies in the outer world and causal dependencies. Similarly important is the ability to measure the duration of elapsing time in order to structure behavior. This in turn does require parsing of the continuous flow of time into units amenable to some counting process. The first part of the presentation will be devoted to neuronal mechanisms underlying the detection, encoding and storage of relations. It is suggested that ultimately all relations - spatial, temporal and semantic - have to be encoded in the brain as temporal relations. The second part will focus on mechanisms allowing for the parsing of time. The emphasis will be on the crucial role that oscillations play in providing the time frame for the definition of relations, for the coordination of distributed processes in the brain and for the organization of complex behavior. Finally, and this part is bound to remain speculative at the present stage of knowledge, the apparent paradox will be discussed that the perception of elapsed and remembered time is strongly dependent on context while the reproduction of temporally structured sequences can be extremely precise.

Wolf Singer | Professor, studied Medicine in Munich and Paris, obtained his MD and PhD in Munich. Director emeritus at the Max Planck Institute for Brain Research, Frankfurt, Germany. Founding Director both of the Frankfurt Institute for Advanced Studies (FIAS) and of the Ernst Strüngmann Institute for Neuroscience (ESI) and Director of the Ernst Strüngmann Forum. Scientific interests: the neuronal substrate of higher cognitive functions.

08.04 | Friday

Parallel Workshops (**W**)

W 1 – Room Auditorium; there will be simultaneous translation
The physics and metaphysics of time
Moderator | **Axel Cleeremans**
Invited presenters: **Orfeu Bertolami, Bernard Carr, Daniel Sheehan & Patricia Cyrus**

W 2 – Room Conferências
Precognition and anomalous experiences
Moderator | **Caroline Watt**
Invited presenter: **Julia Mossbridge**

W 3 – Room Medioteca
The experience of time in altered states of consciousness
Moderator | **Stefan Schmidt**
Invited presenters: **Etzel Cardeña, Marc Wittmann**

W 4 – Room Braga
Perception and memory of time
Moderators | **Rui Costa, Rainer Goebel**
Invited presenters: **Dean Buonomano**

W 1

The physics and metaphysics of time

Moderator | **Axel Cleeremans**
Invited presenters | **Orfeu Bertolami, Bernard Carr, Daniel Sheehan & Patricia Cyrus**

How should we think about time? Does contemporary physics provide the correct conceptual framework to understand this fundamental dimension of our existence? Or should we reinvent physics to account for our experience of time? Exploring the boundaries of our knowledge about this most elusive phenomenon, this workshop will provide an opportunity for the audience to take part in the discussion with four prominent scientists who have approached the physics and metaphysics of time from different directions.

W 2

Precognition and anomalous experiences

Moderator | **Caroline Watt**
Invited presenter | **Julia Mossbridge**

Controlled precognition is a subset of remote viewing in which the target is known by no one until after the viewing session is complete. Therefore, it is precognitive (knowing information ahead of time that cannot be deduced by existing facts) and controlled (the information is not available to anyone else and therefore cannot be unconsciously communicated).
In this workshop, you will learn how to practice controlled precognition. You will be led through 3-5 exercises to help start off your new practice or enhance your existing practice, learn how to use random number generators to select targets after their controlled precognition session has completed, and discover how to strengthen the relationship between the unconscious and conscious minds.

Caroline Watt | Holder of the Koestler Chair of Parapsychology, and founder member of the Koestler Parapsychology Unit, Psychology Department, University of Edinburgh, Scotland. Scientific interests: replication and methodological issues in parapsychology.

W 3

The experience of time in altered states of consciousness

Moderator | **Stefan Schmidt**
Invited presenters | **Etzel Cardeña, Marc Wittmann**

Altered States of Consciousness such as those related to rituals, meditation, hypnosis, and ingestion of psychoactive substances can produce different changes in subjective time experiences. Thus, we can get a better understanding of how time is experienced by studying changes during these states. In this workshop a theoretical framework for time experience and altered states of consciousness will be presented, and then we will explore changes in our own time experience following meditation and hypnosis exercises.

Stefan Schmidt | Professor of Systemic Family Therapy and Head of the Academic Section of Systemic Health Research, Department of Psychosomatic Medicine and Psychotherapy, University Medical Centre, Freiburg, Germany. Director of the Institute for Frontier Areas in Psychology and Mental Health (IGPP), Freiburg, Germany. Scientific interests: systems approaches in health research, psychophysiology, consciousness research, mindfulness meditation, experimental parapsychology, exceptional experiences, placebo research and brain-computer interface.

W 4

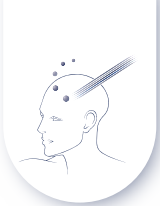
Perception and memory of time

Moderators | **Rui Costa & Rainer Goebel**
Invited presenters | **Dean Buonomano**

Humans are capable of telling time over a wide range of scales, ranging from a few milliseconds to days and beyond. In this workshop we will provide demonstrations of how scientists estimate the precision of the brain's clocks, and examples of temporal illusions. Demonstrations will include: 1) estimating the interval discrimination threshold, that is, how precise the brain's clocks are; 2) illusions of time estimation; and 3) examples of how the interaction between language and the representation of time.

Rui Costa | Professor of Neuroscience and Neurology, Columbia University, and Director and CEO of Columbia's Zuckerman Institute, New York, USA. Investigator at the Champalimaud Centre for the Unknown, Neuroscience Programme, Lisbon, Portugal. Scientific interests: molecular, cellular and systems mechanisms of action generation, sequence and skill learning, goal-directed actions versus habits, across-level approach to study cognitive and sensorimotor disorders (PD, OCD, and autism).

Rainer Goebel | Professor of Cognitive Neuroscience, Faculty of Psychology and Neuroscience, Maastricht University, The Netherlands. Founding director of the Maastricht Brain Imaging Centre (M-BIC). Scientific interests: neuronal representations in the brain and how they are processed to enable specific perceptual and cognitive functions, neural correlates of visual awareness, clinical applications in brain computer interfaces (BCIs) and neurofeedback studies.



Abstracts

09.04 | Saturday

3rd session - The experience of time

Moderator - **Caroline Watt**

The brain is a time machine: The neuroscience of time
Dean Buonomano

Remembering the future: Facilitating the recall of future events
Chris Roe

Visualising time in the brain: Perceiving the present and predicting the future
Jennifer Coull

Keynote lecture
How we experience the passage of time: The body, feelings, and the self
Marc Wittmann

The brain is a time machine: The neuroscience of time

Dean Buonomano

Time lies at the center of a perfect storm of unsolved scientific mysteries: consciousness, free will, relativity, and quantum gravity. The problem of time is particularly fundamental in neuroscience because the brain is in a sense a time machine: it tells time, attempts to predict the future, allows us to engage in mental time travel, and creates the subjective conscious feeling of temporal flow - an experience seemingly at odds with an interpretation of the laws of physics. Because of the fundamental importance of time, the brain can tell time across a broad temporal range: from milliseconds to days. But in contrast to the clocks on our wrists, which rely on the same mechanisms to tell time across this scale, the brain uses different mechanisms to tell time across scales. My talk will describe how the brain tells time and explore the interaction between the neuroscience and physics of time.

Dean Buonomano | Professor of Neurobiology and Psychology, University of California, Los Angeles, USA. Author of "Your Brain is a Time Machine". Scientific interests: neural basis of timing, neurocomputation, neural dynamics, learning and memory.

Remembering the future: Facilitating the recall of future events

Chris Roe

In Lewis Carroll's Through the Looking-Glass, the White Queen advises Alice to practice believing in impossible things. In a landmark 2011 paper published in the Journal of Personality and Social Psychology, Daryl Bem, Professor Emeritus of Psychology at Cornell University, reported 9 tests of precognition including two tests of the White Queen's claim that the future can be "remembered". These studies examined whether rehearsing a set of words makes them easier to recall - even if the rehearsal takes place after the recall test is administered. The paper reported results supporting the hypothesis of precognition – that performance on a current experimental task was seemingly influenced by experience of a future task. This presentation will discuss Bem's landmark studies, including critical reactions to his work, subsequent systematic replication efforts, and the impact of this area of research on our understanding of anomalous experiences.

Chris Roe | Professor of Psychology, and Director of the Centre for Psychology & Sociology, University of Northampton, UK. Past-President of the Society for Psychical Research and Parapsychological Association, and past chair of the British Psychological Society Transpersonal Psychology Section. Scientific interests: understanding the nature of anomalous experiences, including experimental approaches to test claims for extrasensory perception and psychokinesis, particularly where they involve psychological factors.

Visualising time in the brain: Perceiving the present and predicting the future

Jennifer Coull

The perception that time is elapsing depends upon memory as well as incoming sensory evidence. As JJ Gibson eloquently observed "time is a ghost of the events of the world". Put more prosaically, this means we can simply conceive of time as a mental construct. So if time is a mental construct, we should try and identify where it is represented in the brain. Functional neuroimaging techniques have consistently identified a network of regions, including Supplementary Motor Area, basal ganglia, and prefrontal cortex, that are activated when participants make judgements about the duration of currently unfolding events. In parallel, left parietal cortex and cerebellum are activated when participants predict when future events are likely to occur. But why should time be represented in regions of the brain that have more traditionally been implicated in motor function? One possibility is that we learn about time through action. In other words, action could provide the functional scaffolding for learning about time in childhood, explaining why it has come to be represented in motor circuits of the adult brain.

Jennifer Coull | Senior CNRS Research Scientist, Laboratory of Cognitive Neurosciences, CNRS & Aix-Marseille University, France. Scientific interests: functional neuroimaging & psychopharmacology of timing (temporal expectations and duration judgements), development of the "sense" of time in childhood, timing in schizophrenia, functional neuroimaging & psychopharmacology of attention and arousal.

How we experience the passage of time: The body, feelings, and the self

Marc Wittmann

We are aware of the passage of time and we perceive the duration of events. The neural basis for the processing of time, however, is still debated. Based on recent conceptual and empirical findings a framework is presented suggesting that physiological changes of the body, the basis of our feeling states, form an internal signal to encode the duration of external events. Neuroimaging studies have shown how increasing neural activity in the posterior insular cortex is related to the processing of temporal intervals in the multiple-seconds range. Given the close connection between the insula and ascending body signals, it is possible that the accumulation of physiological changes over time constitutes our experience of duration. On a basic level, the bodily self, as created by the continuous input from the body, is the functional anchor of phenomenal self-awareness – and of subjective time. The entanglement of self-reflective consciousness, emotion and body awareness with the experience of time is prominently disclosed in the variations of everyday states of consciousness such as in experiences of flow and of boredom. The experience of time and of the self is more strongly modulated in altered states of consciousness (ASC) induced with different psychological or psychopharmacological induction techniques, but also as felt in certain neurological and psychiatric conditions. In meditative states, as experience in the floating tank, or under the influence of psychedelic drugs a peak experience can occur which later is described as culminating in the oceanic feeling of 'selflessness' and 'timelessness'. Related to psychopathological conditions, many individuals with depression, anxiety, and drug dependence show a hyper-awareness of the self and of time. The core features of ASC are thus antithetical to these psychiatric symptoms. Research is accumulating on positive effects of meditation, floating tank exposure, and the medically controlled use of psychedelic substances on psychopathological symptoms. In my talk, the body of work on the intricate relationship between the bodily self and subjective time will be discussed. Research on subjective time will eventually resolve the still open question of how time consciousness is related to the physiology of the body and brain. My conceptualization allows for an understanding of everyday time experience as well as of peak experiences in ASC. It may even help elucidate the mechanisms of successful treatment of psychiatric patients as witnessed over recent years.

Marc Wittmann | Research Fellow, Institute for Frontier Areas of Psychology and Mental Health, Freiburg, Germany. Scientific interests: the perception of time in everyday fluctuations of consciousness as well as during altered states of consciousness such as induced through meditation, ganzfeld, floating tank and hallucinogens; neurophysiological and psychological explorations of how subjective time is related to cognition, emotion and body states.

09.04 | Saturday

A conversation about time
Moderator | **Teresa Firmino**
Participants | **Jimena Canales, Jennifer Coull, Wolf Singer, Joseph S. Takahashi**

In this session your questions and doubts are valuable! Kindly let us know the issues you would like to be debated by putting the sheet provided in your Symposium bag inside the suggestion box at the secretariat or by sending us an e-mail to fundacao@bial.com. Deadline: April 8, at 6:00 pm (WET time).

Because we do not want to keep the mystery of time to ourselves, we will broadcast this session via BIAL's YouTube from Casa do Médico - everyone may follow us at www.fundacaobial.com

Teresa Firmino | Graduated in Social Communication, NOVA University of Lisbon, Portugal. Science journalist at the Portuguese newspaper "Público", since 1992. In 2008/2009, she has studied science journalism with a Knight Science Journalism Fellowship at Massachusetts Institute of Technology (MIT), USA. Since 2012, she has been the science editor of "Público". She published three books of scientific dissemination. In 2008, she was awarded an honorary mention for "Scientific Journalism" by the Ilídio Pinho Foundation. In 2012, she received the "Journalism Award" of the Portuguese League Against Cancer and in 2017 the "Ciência Viva Montepio Media Award".

Abstract of the poster presented by the BIAL Foundation

KEEPING UP WITH THE BIAL FOUNDATION PERFORMANCE: A BIBLIOMETRIC ASSESSMENT

Cordeiro, C., Marinho, S., Guedes, P., & Sousa, N.

Fundação BIAL

Background: Bibliometric indicators are a useful tool to assess the quality of several research outcomes. In 2014, we created an online database to gather the outcomes derived from projects supported by BIAL Foundation, thus enabling a more systematic and comprehensive evaluation of their research impact.

Aims: To analyze and monitor the productivity, and related outcomes, of the projects supported by the BIAL Foundation from 1994 until today.

Method: The productivity of projects was measured by counting the number of papers published in academic journals indexed on Web of Science (WoS) or Scopus. To examine the impact of publications we retrieved the number of citations per item from the WoS Core Collection in March 2022. The BIAL Foundation *h*-index was calculated by combining the total number of papers published (i.e., productivity) and the number of citations for each paper (i.e., impact). Moreover, for papers published between 2011 and 2021, the number of citations were compared with the expected number of citations for papers in the same research field and publication year, based on field baselines percentiles dataset of Essential Science Indicators (ESI), updated on January 13th,2022. We also retrieved information regarding the Highly Cited Papers (those that ranked in the top 1% by citations for research field and publication year in WoS). Regarding journals' quality, it was assessed by the impact factor and, mainly, by the quartile score (i.e., Q1, Q2, Q3, and Q4), which was provided by Journal Citation Reports, to mitigate differences between research fields. It is noteworthy, that when a journal occupied different positions in the quartile ranking depending on the subject category with which it was associated, we chose the higher rank.

Results: Since 1994, there were 775 projects supported through the Grants Program for Scientific Research, in the areas of Psychophysiology (392 projects; 51%), Parapsychology (240 projects; 31%) and Interdisciplinary (i.e., a combination of Psychophysiology and Parapsychology; 143 projects; 18%). Moreover, the Foundation also supports four additional projects focused on specific topics of interest. Regarding projects' productivity, between 1994 and 2022, there were 2075 publications (article, book chapter, conference paper, conference proceedings, editorial material, journal, letter, and online paper), out of which 1606 were published in indexed journals. From those, 1361 were published in journals with an average impact factor of 4.016. We counted 35.146 citations, with 1430 publications being cited on average 23 times (M = 23.00), ranging from 0 to 538. Most of papers were published in journals of quartile 1 (n = 647; 45.24%) and quartile 2 (n = 378; 26,43%). The BIAL Foundation *h*-index was 83. Between 2011 and 2021, from the 1017 publications, 21% ranked in the top 10% by citations for field and publication year.

Conclusions: The use of up-to-date bibliometric indicators provides a basis for evaluating ongoing and to guide the strategy of future scientific projects supported by the BIAL Foundation. These results demonstrate the excellence of the research work under the scope of the Grants Program for Scientific Research supported by BIAL Foundation.

Keywords: BIAL Foundation grants, Indexed publications, Citations, Impact factor, Quartiles.

Posters with final results presented by the BIAL Foundation grant holders and/or available at www.fundacaobial.com

2014

85/14 – "The clinical gut: Examining the cognitive processes and neural underpinnings of judgments, feelings of rightness and its impact on information seeking" - only abstract available
Researchers: Ana Sofia Bilreiro Jacinto Braga, Anne Krendl, Cara Charissa Lewis, Cilia Witteman, Elizabeth Collins, João Braga
Institution: Centro de Investigação e Intervenção Social (CIS-IUL), ISCTE - Instituto Universitário de Lisboa (Portugal); Department of Psychological and Brain Sciences - Indiana University Bloomington (USA)
Duration: 2015/05 – 2021/02

178/14 – "A study of the relationship between mindfulness, distraction and brain stimulation" - only abstract available
Researchers: Fabrice Parmentier, Javier Garcia-Campayo, Margalida Gili-Planas, Mauro García-Toro, Pilar Andrés
Institution: University of the Balearic Islands, Palma (Spain); Hospital Universitario Miguelñ Servet, Zaragoza (Spain)
Duration: 2015/06 – 2019/07

207/14 – "The role of astrocytes in complex cognitive processing"
Researchers: João Filipe Pedreira de Oliveira, Joana Correia, Luísa Pinto, Nuno Dias, Sónia Guerra Gomes, Vanessa Sardinha, Inês Caetano Campos
Institution: Life and Health Sciences Research Institute - ICVS/3B's- Government Associate Laboratory, Universidade do Minho, Braga (Portugal)
Duration: 2015/10 – 2019/11

211/14 – "Mind to mind: Brain dynamics of distant focused intention for consciousness expansion"
Researchers: Anabela Ventura Carraça, Carlos Miguel Loureiro Siopa, Hugo A. Ferreira, Carlos Moreira
Institution: LIMMIT - Laboratory of Mind-Matter Interaction with Therapeutic Intention, Faculdade de Medicina da Universidade de Lisboa (Portugal)
Duration: 2015/04 – 2019/04

242/14 – "The role of affective dimensions in the perception of facial expressions of emotion: Neuropsychophysiological, developmental, and neuroimaging examination of an affective predictive coding framework"
Researchers: Fernando Ricardo Ferreira Santos, Eva Inês Costa Martins, Francisco Sá Ferreira Loureiro Pipa, Manuel Fernando Santos Barbosa, Michelle de Haan, Pedro Manuel Rocha Almeida, Tiago de Oliveira Paiva, Torsten Baldeweg
Institution: Laboratory of Neuropsychophysiology – Faculty of Psychology and Educational Sciences of the University of Porto (Portugal)
Duration: 2015/10 – 2021/03

251/14 – "Signal or noise? Using a psychophysical approach to investigate the effects of attention and neurofeedback training on electrocortical predictive anticipatory activity (PAA) to true random stimuli"
Researchers: Michael Franklin, Jonathn Schooler, Stephen Baumgart
Institution: Department of Psychology and Brain Sciences, University of California at Santa Barbara (USA)
Estimated duration: 2015/04 – 2019/07

268/14 – "EEG localization and individual variability in response to emotional stimuli" - only abstract available
Researchers: William E. Bunney, Blynn G. Bunney, James Fallon, Joseph C. Wu, Julie Patterson, Richard Alan Stein
Institution: The Regents of the University of California, Irvine (USA)
Duration: 2017/03 – 2021/05

299/14 – "Neurofeedback-based adaptive audiovisual tutorial for enhancing multi-modal learning" - only abstract available
Researchers: Rainer Wilhelm Goebel, Gal Raz, Talma Hendler, Rick van Hoof
Institutions: Maastricht Brain Imaging Centre, Maastricht University (The Netherlands); The Medical Research Infrastructure and health services fund at the Tel Aviv Medical center (Israel)
Estimated duration: 2015/12 – 2020/01

304/14 – "The impact of music training on reading and mathematical abilities of normal and reading disabled children: a behavioral and neuroimaging longitudinal study"
Researchers: Maria de São Luís Vasconcelos da Fonseca e Castro Schöner, Christian Gaser, Daniela da Costa Coimbra, Marta Sofia Pinto Martins
Institutions: Faculty of Psychology and Educational Sciences at University of Porto, FPCEUP / Centre for Psychology at University of Porto (Portugal); Structural Brain Mapping Group/ Department of Psychiatry - Jena University Hospital (Germany)
Duration: 2015/10 – 2019/09

339/14 – "Neural mechanisms of social cognition in zebrafish" - only abstract available
Researcher: Ana Rita Silva Martins Nunes **-** only abstract available
Institution: Instituto Gulbenkian de Ciencia, Oeiras (Portugal)
Duration: 2015/05 – 2019/11

376/14 – "Lateralisation of cognitive functions in the brain: Typical vs. atypical patterns" - only abstract available
Researcher: Deborah J Serrien
Institution: School of Psychology, University of Nottingham (UK)
Duration: 2015/10 – 2018/11

427/14 – "Gliogenesis control of brain neuroplasticity, neurophysiology and cognitive function"
Researchers: Luísa Alexandra Meireles Pinto, Ana Rita Machado dos Santos, António Maria Restolho Mateus Pinheiro, Joana Sofia da Silva Correia, João Filipe Pedreira de Oliveira, João Miguel Bessa Peixoto, Nuno Dinis Alves, Vítor Manuel da Silva Pinto
Institution: Life and Health Sciences Research Institute - ICVS/3B's- Government Associate Laboratory, Universidade do Minho, Braga (Portugal); Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)
Duration: 2015/09 – 2019/10

442/14 – "Neurochemical substrates of neurofeedback" - only abstract available
Researchers: Tomas Ros, Nathalie Ginovart
Institution: Interfacultary Center for Neuroscience, University of Geneva (Switzerland); Division of Nuclear Medicine, University Hospitals Geneva (Switzerland)
Duration: 2016/04 – 2020/09

528/14 – "Psi performance in attenuated electromagnetic fields" - only abstract available
Researchers: Michelle Fauver, Glenn Hartelius, Richard Knowles
Institution: California Institute of Integral Studies, Embodied Consciousness Research Group, San Francisco (USA)
Estimated duration: 2015/01 – 2018/07

2016

30/16 - "Exploring the neural basis of motivation"
Researchers: Ana João Rodrigues, Nivaldo Vasconcelos, Carina Cunha, Bárbara Coimbra, Laura Silva, Patrícia Monteiro, Sónia Borges, Pedro Morgado
Institution: Life and Health Sciences Research Institute - ICVS, School of Health Sciences, University of Minho, Braga (Portugal)
Duration: 2017/01 – 2020/03

32/16 – "Neural mechanisms of dream recall: Electrophysiological differences between young and older adults" - only abstract available
Researchers: Serena Scarpelli, Luigi De Gennaro, Anastasia Mangiaruga, Chiara Bartolacci
Institution: Department of Psychology, University of Rome "La Sapienza" (Italy)
Duration: 2017/04 – 2019/09

39/16 – "Considering voice hearing by psychic practitioners: A qualitative pluralistic investigation of mental health and well-being" - only abstract available
Researcher: Craig Murray
Institution: Division of Health Research, Lancaster University (UK)
Duration: 2017/05 – 2020/06

44/16 – "Inducing and measuring plasticity in response control mechanisms in the human brain"
Researchers: Alejandra Sel de Felipe, Matthew Rushworth
Institution: Department of Experimental Psychology, University of Oxford (UK)
Duration: 2017/10 – 2021/09

51/16 – "Cognitive plasticity: Modulation and monitoring through a neurophysiological approach" - only abstract available
Researchers: Carlo Miniussi, Romina Esposito
Institution: Centre for Mind/Brain Sciences - CIMeC, University of Trento, Rovereto (Italy)
Duration: 2017/03 – 2020/03

58/16 – "Psi, nonlocality and entangled photons" - only abstract available
Researchers: Dean Radin, Peter Bancel, Arnaud Delorme
Institution: Institute of Noetic Sciences, Petaluma, California (USA); Institute Metapsychique Internationale, Paris (France)
Duration: 2019/09 – 2021/11

62/16 – "Imagination and reactance in a psi task using the imagery cultivation model and a fuzzy set encoded target pool" - only abstract available
Researcher: Lance Storm
Institution: Brain and Cognition Research Centre, School of Psychology, University of Adelaide (Australia)
Duration: 2017/11 – 2019/04

66/16 – "Mindfulness meditation shapes synchronization of brain networks for effective perceptual decision making"
Researcher: Laura Marzetti
Institution: Department of Neurosciences, Imaging and Clinical Sciences, University "G. D'Annunzio" of Chieti - Pescara (Italy)
Duration: 2017/09 – 2019/09

69/16 – "Induced near-death-experiences in healthy volunteers: Phenomenology, psychophysiology and after effects. Illustration with two exceptional case studies"
Researchers: Mário Simões, Sofia Machado Ferreira, Ana Paula Farinha
Institution: Laboratory of Mind-Matter Interaction with Therapeutic Intention – LIMMIT, Faculdade de Medicina da Universidade de Lisboa (Portugal); Hospital de Santa Maria, Lisboa (Portugal)
Duration: 2018/05 – 2020/11

70/16 – "Understanding atypical metacognition and time perception in high hypnotic suggestibility"
Researcher: Devin Terhune
Institution: Department of Psychology, Goldsmiths, University of London (UK)
Estimated duration: 2017/11 – 2018/12

72/16 – "A physiological examination of full-trance channeling"
Researchers: Helané Wahbeh, Arnaud Delorme
Institution: Institute of Noetic Sciences, Petaluma, California (USA)
Duration: 2017/09 – 2019/03

75/16 – "The painful awareness of death: Influence of thoughts of death on behavioural and cerebral activity associated with painful nociceptive stimuli" - only abstract available
Researchers: Elia Valentini, Istvan Gyimes
Institution: Department of Psychology, Faculty of Science and Health, University of Essex, Colchester (UK)
Estimated duration: 2017/10 – 2020/09

88/16 – "The interoceptive self: Transcutaneous vagus nerve stimulation as a new tool to investigate heart-brain interactions"
Researchers: Ruben Azevedo, Emmanouil Tsakiris, Valerio Vallani
Institution: Department of Psychology, Royal Holloway, University of London (UK)
Duration: 2017/10 – 2019/10

93/16 – "Synchonizing brain and heart through decelerated respiration – An EEG-ECG study investigating the effects of paced breathing"
Researchers: Thilo Hinterberger, Teele Tamm
Institution: Research Section of Applied Consciousness Sciences, Department of Psychosomatic Medicine, University Medical Center Regensburg (Germany)
Duration: 2018/08 – 2020/06

95/16 – "Reward modulation of tactile stimulus processing"
Researchers: Miguel Pais-Vieira, Marlene Barros, Nuno Rosa, Nivaldo Vasconcelos, Carla Pais-Vieira
Institution: Instituto de Ciências da Saúde, Universidade Católica Portuguesa, Porto (Portugal); Life and Health Sciences Research Institute - ICVS, School of Health Sciences, University of Minho, Braga (Portugal)
Estimated duration: 2017/10 – 2020/10

100/16 – "Arousal effects on time perception and timed behaviour" - only abstract available
Researchers: Ruth Ogden, Michael Richter, Francis McGlone
Institution: School of Natural Sciences and Psychology, Liverpool John Moores University (UK)
Duration: 2017/09 – 2019/05

101/16 – "Implications of near-death experiences for the mind-brain relationship" - only abstract available
Researchers: Bruce Greyson, Surbhi Khanna, Lauren Moore, Lori Derr, Sue Ruddock
Institution: Division of Perceptual Studies, Department of Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville (USA)
Duration: 2017/07 – 2018/11

102/16 – "Using suggestion to influence attitudes and behaviour" - only abstract available
Researchers: Jeremy Olson, Thomas Strandberg, Amir Raz, Petter Johansson
Institutions: Raz Cognitive Neuroscience Lab, McGill University & Montreal Neurological Institute (Canada); Choice Blindness Laboratory, Lund University Cognitive Science (Sweden)
Duration: 2018/01 – 2020/01

111/16 – "A psychophysiological perspective of the transformative experience of pregnancy" - only abstract available
Researchers: Helena Rutherford, Linda Mayes, Catherine Monk, Elizabeth Meins, Brianna Francis
Institution: Child Study Center – CSC, Yale University School of Medicine, New Haven (USA)
Duration: 2017/03 – 2020/02

114/16 – "Effects of a mindfulness-based intervention for teachers: A study on teacher and student outcomes" - only abstract available
Researchers: Alexandra Marques-Pinto, Ana Pinheiro, Patricia Jennings, Mark Greenberg, Joana Sampaio de Carvalho
Institution: Centro de Investigação em Ciência Psicológica- CICPSI, Faculdade de Psicologia da Universidade de Lisboa (Portugal)
Duration: 2017/01 – 2020/03

117/16 – "Replication in parapsychology: The correlation matrix method" - only abstract available
Researchers: Caroline Watt, Ana Flores
Institution: Koestler Parapsychology Unit, University of Edinburgh, Scotland (UK)
Duration: 2017/01 – 2018/11

118/16 – "The experiences of participants in religious healing rituals in Lourdes: The role of noetic meaning and identity shift" - only abstract available
Researchers: Paul Dieppe, Sarah Goldingay, Sarah Warber, Emmylou Rahtz
Institution: Institute of Health Research, University of Exeter Medical School (UK); Centre for Research in Psychology, Behaviour and Achievement, University of Coventry (UK)
Estimated duration: 2017/07 – 2021/10

122/16 – "A fully transparent pre-registered replication study of precognitive detection of reinforcement using an expert consensus design" - only abstract available
Researchers: Zoltan Kekecs, Balazs Aczel, Bence Palfi, Aba Szollosi, Barnabas Szaszi
Institution: Decision Making Laboratory, Faculty of Education and Psychology, Eotvos Lorand University, Budapest (Hungary)
Estimated duration: 2017/05 – 2022/04

147/16 – "Metarepresentations of supernatural belief and the effect of context on physiological responses and cognitions"
Researchers: Malcolm Schofield, Ian Baker, David Sheffield, Paul Staples
Institution: Department of Psychology, College of Life and Natural Sciences, University of Derby (UK)
Estimated duration: 2018/02 – 2020/02

150/16 - "An investigation into the causal role of alpha oscillations in attention" - only abstract available
Researchers: Alexander Jones, Jonathan Silas, Lars Wicke
Institution: The Behavioural, Affective, and Cognitive Neuroscience research group - BACneuro, Middlesex University London (UK)
Estimated duration: 2017/03 – 2019/02

152/16 – "The role of the lateral occipital area in the visual processing of object size, shape, and orientation within and outside conscious awareness" - only abstract available
Researchers: Philippe Chouinard, Irene Sperandio, Robin Laycock
Institutions: La Trobe University, Melbourne (Australia); School of Psychology, University of East Anglia, Norwich (UK)
Duration: 2017/03 – 2019/09

157/16 – "Estranged from oneself, estranged from the others: Investigating the effect of depersonalisation on self-other mirroring"
Researchers: Anna Ciaunica, Harry Farmer, Ophelia Deroy, Vittorio Gallese
Institutions: Institute of Philosophy Porto, University of Porto (Portugal); Institute of Cognitive Neuroscience, University College London (UK)
Duration: 2017/05 – 2021/05

169/16 – "The potential effect of behavioral stimulation on social competence in dogs (via endogenous oxytocin release)" - only abstract available
Researchers: Anna Kis, József Topál, Alin Ciobica, Radu Lefter, Katinka Tóth
Institutions: Institute of Cognitive Neuroscience and Psychology, Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest (Hungary); Department of Animal Physiology and Behaviour "Alexandru Ioan Cuza" University, Iasi (Romania)
Duration: 2017/01 – 2021/11

176/16 – "Dissociating working memory and inhibition deficits as a result of healthy and unhealthy ageing" - only abstract available
Researchers: Stephen Badham, Mark Crook-Rumsey, David Connelly, Trevor Crawford, Christina Howard
Institutions: Division of Psychology, Nottingham Tent Univeristy (UK); Department of Psychology, Lancaster University (UK)
Duration: 2017/12 – 2021/05

183/16 – "Decoding the language of 'now': EEG microstates in experienced meditators, from letters to grammar"
Researchers: Elena Antonova, Chrystopher Nehaniv, Martin Holding
Institutions: Department of Psychology, Institute of Psychiatry, Psychology & Neuroscience, King's College London (UK); University of Hertfordshire, Hatfield (UK)
Estimated duration: 2017/09 – 2021/04

188/16 – "Accuracy and neural correlates of blinded mediumship compared to controls"
Researchers: Arnaud Delorme, Helane Wahbeh
Institution: Institute of Noetic Sciences, Petaluma, California (USA)
Duration: 2017/10 – 2020/10

189/16 – "Implicit beliefs in the study of experimenter effects in the replication of psi experiments: A global initiative"
Researchers: Marilyn Schlitz, Arnaud Delorme, Daryl Bem
Institution: Institute of Noetic Sciences, Petaluma, California (USA)
Duration: 2017/10 – 2021/04

190/16 – "Sleeping body, sentient mind? Searching for the neural bases of conscious experiences during sleep" - only abstract available
Researchers: Eus Van Someren, Yishul Wei
Institution: Department of Sleep and Cognition, Netherlands Institute for Neuroscience, Amsterdam (The Netherlands)
Duration: 2017/10 – 2019/05

191/16 – "Mind-matter entanglement correlation" - only abstract available
Researcher: Hartmut Grote
Institutions: Max-Planck Institute for Gravitational Physics (Albert Einstein Institute), Hannover (Germany)
Duration: 2017/03 – 2021/03

195/16 – "The sense of self: A neuroimaging study of interactions between intrinsic and extrinsic self networks" - only abstract available
Researchers: Sjoerd Ebisch, Mauro Gianni Perrucci
Institution: Department of Neurosciences, Imaging and Clinical Sciences, University "G. D'Annunzio" of Chieti - Pescara (Italy)
Duration: 2017/04 – 2019/10

203/16 – "Extraordinary experiences and performance on psi tasks during and after meditation classes and retreats"
Researchers: Jennifer Kim Penberthy, Cassandra Vieten, Lori Derr, Arnaud Delorme, Jenny Matthews, Loraine Walter
Institutions: Division of Perceptual Studies, Department of Psychiatry and Neurobehavioral Sciences, University of Virginia, Charlottesville (USA); Institute of Noetic Sciences, Petaluma, California (USA)
Duration: 2018/01 – 2020/01

207/16 – "The role of motion adaptation in bottom-up mechanisms of perceptual decision-making"
Researchers: Miguel Castelo-Branco, João Duarte, Ricardo Martins, Teresa Sousa, Gabriel Costa
Institution: Institute for Nuclear Sciences Applied to Health - ICNAS, University of Coimbra (Portugal)
Duration: 2017/11 – 2019/10

217/16 – "Physiological indices of the deleterious effects of unrealistic media images on body satisfaction: A cross-cultural investigation"
Researchers: Clédna Patrícia de Oliveira-Silva, Rachel Rodgers, Óscar Gonçalves, Pedro Dias, Rosana Magalhães, Eugénia Fernandes, Bárbara Machado, Joana Coutinho, Mike Marriott
Institutions: Centre for Studies in Human Development, Faculty of Education and Psychology, Universidade Católica Portuguesa, Porto (Portugal); Department of Applied Psychology, Northeastern University, Boston (USA); Nottingham Trent University (UK)
Estimated duration: 2018/06 – 2021/12

218/16 – "Virtual bodies, real empathy: Behavioural, bodily, and neural reactivity to the observation of pain and pleasure on self and others in immersive virtual reality"
Researchers: Gaetano Tieri, Martina Fusaro, Valentina Nicolardi, Salvatore Maria Aglioti
Institution: Unitelma Sapienza, Rome (Italy); Social Cognitive Neuroscience Laboratory, University of Rome "La Sapienza" (Italy)
Duration: 2017/05 – 2020/01

238/16 – "When prediction errs: Examining the brain dynamics of altered saliency in self-voice perception"
Researchers: Ana P. Pinheiro, Sonja Kotz, Michael Schwartze, Maria Amorim
Institutions: Faculdade de Psicologia da Universidade de Lisboa (Portugal); Faculty of Psychology and Neuroscience, University of Maastricht (The Netherlands)
Duration: 2017/03 – 2020/01

264/16 – "The influence of maternal bonding in neuroimmune synaptic sculpting"
Researchers: Ana Luísa Cardoso, João Peça, Joana Guedes, Ana Silvestre Cardoso, Ana Viegas, Elisabete Ferreiro
Institution: Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)
Duration: 2017/01 – 2020/09

266/16 – "Early life stress and social hierarchies: The role of cortico-striatal circuits"
Researchers: João Peça, Joana Guedes, Ana Luísa Cardoso, Mohammed Hussien, Lara Franco, Mário Carvalho
Institution: Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)
Duration: 2017/01 – 2021/01

281/16 – "Motor Imagery in speech processing"
Researchers: Patricia Martine Adank, Helen Nuttall, Gwijde Maegherman
Institution: Speech Hearing and Phonetic Sciences, Division of Psychology and Language, UCL, London (UK); Department of Psychology, University of Lancaster (UK)
Duration: 2018/01 – 2020/04

286/16 – "Getting the aging brain to train: A working memory and neurostimulation approach"
Researchers: Adriana Sampaio, Ana C. Teixeira Santos, Sandra Carvalho, Jorge Leite, Ana Raquel Mesquita, Felipe Fregni
Institutions: Psychology Research Center (CIPsi), School of Psychology, University of Minho, Braga (Portugal); Spaulding-Labuschange Neuromodulation Center, Spaulding Rehabilitation Hospital & Massachusetts General Hospital/Harvard Medical School, Charlestown (USA)
Estimated duration: 2017/06 – 2022/05

298/16 – "Empowering feedback connections in temporo-occipital network to boost visual perception of emotions" - only abstract available
Researchers: Sara Borgomaneri, Marco Zanon, Alessio Avenanti, Caterina Bertini
Institution: Center for studies and research in Cognitive Neuroscience, Department of Psychology, University of Bologna, Cesena (Italy)
Duration: 2017/09 – 2019/10

312/16 – "Mind-body interactions in writing (M-BW): Psychophysiological and linguistic synchronous correlates of expressive writing"
Researchers: Rui Alves, Teresa Limpo, Sara Costa, Ana Sousa, Mónica Moreira, José Leal, Teresa Jacques
Institution: Neurocognition and Language Research Group, Faculty of Psychology and Education Sciences of the University of Porto (Portugal); Faculty of Sciences of the University of Porto, (Portugal)
Duration: 2017/04 – 2020/09

329/16 – "Exploring the correlates and nature of subjective apparitional experiences"
Researchers: Christine Simmonds-Moore, Donadrian Rice, Chase O'Gwin
Institution: Psychology Department, University of West Georgia, Carrollton (USA)
Duration: 2018/04 – 2020/06

346/16 – "The mind possessed project: Mapping the varieties of possession experiences"
Researchers: Miguel Farias, Romara Delmonte
Institution: Centre for Research in Psychology, Behaviour and Achievement, Coventry University (UK)
Estimated duration: 2017/12 – 2021/04

2018

02/18 – "Neurobiological effects of Lourdes water: An fMRI study" - only abstract available
Researchers: Anne Schienle, Albert Wabnegger
Institution: Clinical Psychology, University of Graz (Austria)
Duration: 2019/01 – 2021/09

13/18 – "Biological bases of music cognition" - only abstract available
Researchers: Juan Manuel Toro, Paola Crespo-Bojorque, Alexandre Celma-Miralles, Carlota Pagés
Institution: Center for Brain and Cogntion, University Pompeu Fabra, Barcelona (Spain)
Duration: 2019/03 – 2021/10

16/18 – "The psychology and parapsychology of spiritual emergency" - only abstract available
Researchers: Lance Storm, Monika Goretzki
Institution: School of Psychology, University of Adelaide (Australia)
Duration: 2019/06 – 2021/09

29/18 – "Mind-matter practical applications" - only abstract available
Researchers: Patrizio Tressoldi, Luciano Pederzoli, Marco Bilucaglia
Institution: EvanLab, Firenze (Italy); Dipartimento di Psicologia Generale, Università di Padova (Italy)
Duration: 2019/01 – 2021/05

50/18 – "Changes in the temporal width of the present moment after meditation"
Researchers: Marc Wittmann, Stefan Schmidt, Karin Meissner, **Damisela Linares Gutiérrez**
Institutions: Institute for Frontier Areas of Psychology and Mental Health, Freiburg (Germany); University Clinic Freiburg (Germany); Coburg University of Applied Sciences (Germany)
Estimated duration: 2019/07 – 2021/08

72/18 – "Temperamental influences on social cognition under stress" - only abstract available
Researchers: Frederike Beyer, Ulrike Krämer
Institution: Psychology Department, School of Biological and Chemical Sciences, Queen Mary University of London (UK); Department of Neurology, University of Lubeck (Germany)
Duration: 2019/02 – 2021/09

82/18 – "Neuropsychological and cognitive-perceptual characteristics of mediums and psychics"
Researcher: Ken Drinkwater
Institution: Health, Psychology and Communities, Manchester Metropolitan University (UK)
Estimated duration: 2019/09 – 2021/09

93/18 – "Meditation-induced neuroplasticity of the embodied-self and its role in social processing" - only abstract available
Researcher: Aviva Berkovich-Ohana
Institution: The Edmond J. Safra Brain Research Center, University of Haifa (Israel); Gonda Multidisciplinary Brain Research Center, Bar-Ilan University (Israel)
Duration: 2019/02 – 2021/09

101/18 – "Hypnosis and cognition: Neural basis of hypnotic suggestion on executive functions and perceptual awareness" - only abstract available
Researcher: Rinaldo Livio Perri, Francesco Di Russo, Enrico Facco
Institution: Faculty of Psychology, University Niccolò Cusano, Rome (Italy); Cognitive Nueroscience o Action lab, University Foro Italico, Rome (Italy)
Duration: 2019/03 – 2021/09

106/18 – "How does consciousness work in real life?" - only abstract available
Researchers: Adrià Tauste Campo, Rodrigo Quian-Quiroga
Institution: Center for Brain and Cognition, University Pompeu Fabra, Barcelona (Spain)
Estimated duration: 2019/02 – 2021/05

113/18 – "Psi in everyday social interaction"
Researcher: Robin Wooffitt, Alicia Fuentes-Calle
Institution: Anomalous Experiences Research Unit, Department of Sociology, University of York (UK)
Duration: 2019/03 – 2021/04

117/18 – "The neuronal basis of biases" - only abstract available
Researchers: Rubén Moreno-Bote, Roozbeh Kiani
Institution: Center for Brain and Cognition, Department of Technologies of Information and Communications, Universitat Pompeu Fabra, Barcelona (Spain); Center for Neural Science, New York University (USA)
Duration: 2019/01 – 2021/04

138/18 – "The neural signatures of leadership: Two-brain directed synchronization during eye contact"
Researchers: Caroline Di Bernardi Luft, Isabelle Mareschal
Institution: School of Biological and Chemical Sciences, Queen Mary University of London (UK)
Estimated duration: 2019/07 – 2020/06

163/18 – "Effects of a short-term mindfulness intervention on hypnotisability and mental health" - only abstract available
Researchers: Zoltan Dienes, Peter Lush
Institution: School of Psychology, University of Sussex (UK)
Duration: 2019/04 – 2020/04

180/18 – "Exploring the effects of linguistic versus non-linguistic mentation in a remote viewing protocol, with coincident micropsychokinesis detection using a novel matrix REG" - only abstract available
Researchers: Paul Stevens, Ben Roberts
Institution: University of Derby (UK)
Estimated duration: 2019/05 – 2020/06

211/18 – "Correlating accurate intuition with learning styles and sensory modality preferences" - only abstract available
Researchers: Julie Beischel, Lisa Conboy
Institution: Windbridge Research Center, Tucson, Arizona (USA); Beth Israel Deaconess Medical Center at Harvard Medical School, Boston, Massachusetts (USA)
Duration: 2019/01 – 2021/10

228/18 – "Blurring the line between human and robot? Mapping and manipulating the socialness gradient in the brain" - only abstract available
Researchers: Ruud Hortensius, Emily Cross
Institution: Centre for Social, Cognitive and Affective Neuroscience - cSCAN, Institute of Neuroscience and Psychology, University of Glasgow (UK)
Duration: 2019/05 – 2021/09

230/18 – "Unraveling the mechanisms behind automatic and emotional control: Psychophysiological, cortical excitability and functional connectivity measures"
Researchers: Ignacio Obeso, Jose Ángel Pineda Pardo, Claudia Ammann, Lina Guida, Úrsula Alcañas, David Mata Marín
Institution: Centro Integral en Neurociencias A. C. – CINAC, Fundación Investigación HM Hospitales, Madrid (Spain)
Estimated duration: 2019/02 – 2021/12

261/18 – "Phenomenological experience and neurophysiological correlates of shamanic trance in healthy individuals"
Researchers: Olivia Gosseries, Marie Nolwenn
Institution: GIGA research center, GIGA-Consciousness, University of Liège (Belgium)
Duration: 2019/07 – 2021/11

284/18 – "Testing a neurophysiological model of inner speech processing"
Researcher: Bo Yao
Institution: Division of Neuroscience and Experimental Psychology, University of Manchester (UK)
Duration: 2019/09 – 2022/01

339/18 – "Analysis of brain activity in adolescents with different levels of emotional regulation" - only abstract available
Researchers: Jordi Solbes Matarredona, María Ángeles Gómez Climent, Samuel Hernández González, Carlos Caurín Alonso, Albert Clemente Soriano, Jose Luis Alba Robles, Rodrigo Zequeira Cotes
Institutions: Faculty of Education, University of Valencia (Spain); Faculty of Psychology, University of Valencia (Spain); Faculty of Psychology and Education, International University of Rioja, Logroño (Spain)
Estimated duration: 2019/02 – 2020/10

356/18 – "Neural mechanisms underlying unconscious working memory" - only abstract available
Researchers: Albert Compte, João Barbosa, Josep Valls-Sole
Institution: Institut d'investigacions Biomèdiques August Pi i Sunyer - IDIBAPS, Barcelona (Spain)
Duration: 2019/05 – 2021/09

Abstracts of ongoing projects supported by the BIAL Foundation available at www.fundacaobial.com

Should you need further information on any of these projects, please contact the Secretariat and we will be glad to introduce you to the researcher attending the symposium

2014

430/14 – "Psychophysiological detection of feigned memory complaints"
Researchers: Sara Cavaco, Filomena Maria Correia Gomes
Institution: Centro Hospitalar do Porto - Hospital Santo António (Portugal); Faculdade de Medicina do Porto (Portugal)
Estimated duration: 2016/05 – 2020/06

526/14 – "Hypnosis unfolds: Hypnotic suggestion and patterns of whole-brain dynamics"
Researchers: Marios Kittenis
Institution: Department of Psychology - School of Philosophy, Psychology and Language Sciences, University of Edinburgh (Scotland)
Estimated duration: 2016/06 – 2020/08

2016

142/16 – "Gender differences in physiological correlates of multitasking"
Researcher: Andre Szameitat
Institution: Centre for Cognitive Neuroscience, Division of Psychology, Department of Life Sciences, Brunel University London, Uxbridge (UK)
Estimated duration: 2017/09 – 2021/04

174/16 – "Learning to sense God: How cognitive absorption and mental training shape religious experience"
Researchers: Tanya Luhrmann, Michael Lifshitz, Amir Raz
Institution: Department of Anthropology, Stanford University, California (USA); McGill University & Montreal Neurological Institute (Canada)
Estimated duration: 2019/02 – 2021/04

249/16 – "Healthy aging and economic decision-making: neuropsychophysiological examination of the affect-integration-motivation framework of decision-making in aging brain"
Researchers: João Marques-Teixeira, Rui Mata, Isabel Martins, Giuseppe Danese, Carina Fernandes, Rita Pasion, Tiago Oliveira Paiva
Institution: Laboratory of Neuropsychophysiology, Faculty of Psychology and Education Sciences of the University of Porto (Portugal)
Estimated duration: 2018/02 – 2021/02

250/16 – "Brain-wide functional connectivity of oxytocin neurons"
Researchers: Cristina Marquez, Santiago Canals, Aroa Sanz
Institution: Instituto de Neurociencias de Alicante, Consejo Superior de Investigaciones Científicas - Universidad Miguel Hernández, San Juan de Alicante (Spain)
Estimated duration: 2017/11 – 2020/08

255/16 – "Predictive coding of observed action in the brain – a 7T study"
Researchers: Valeria Gazzola, Christian Keysers, Ritu Bhandari
Institution: Netherlands Institute for Neuroscience, Royal Netherlands Academy of Arts and Sciences, Amsterdam (The Netherlands); Spinoza Centre for Neuroimaging, Amsterdam (The Netherlands)
Estimated duration: 2017/02 – 2021/02

260/16 – "The neural correlates of the "self" in altered states of consciousness"
Researchers: Antoine Lutz, Prisca Bauer
Institution: Lyon Neuroscience Research Center, Institut National de la Santé et de la Recherche Médicale - INSERM, Bron (France)
Estimated duration: 2018/01 – 2020/12

280/16 – "Probing the unconscious mind with instrumental hypnosis"
Researchers: Mathieu Landry, Jérôme Sackur, Amir Raz
Institution: Laboratoire de Sciences Cognitives et Psycholinguistique, École Normale Supérieure, Paris (France); Raz Cognitive Neuroscience Lab, McGill University, Montreal (Canada)
Estimated duration: 2018/06 – 2019/09

2018

68/18 – "Investigating biochemical mechanisms underlying mind-matter interactions: Effect of intention on human stem cell properties via cryptochrome"
Researchers: Yung-Jong Shiah, George T.-J. Huang, Liang Shan
Institution: Graduate Institute of Counseling Psychology and Rehabilitation Counseling, National Kaohsiung Normal University, Kaohsiung, Taiwan (China); University of Tennessee Health Science Center, Memphis (USA)
Estimated duration: 2019/03 – 2020/08

71/18 – "Explaining autonomous sensory meridian response"
Researchers: Michael Banissy, Thomas Swart
Institution: Department of Psychology, Goldsmiths, University of London (UK)
Estimated duration: 2019/01 – 2022/01

85/18 – "Role of NT3/TrkC in the regulation of fear"
Researcher: Mónica Santos
Institution: Center for Neuroscience and Cell Biology, University of Coimbra (Portugal)
Estimated duration: 2019/03 – 2022/02

89/18 – "National survey of "Cases of Reincarnation Type" in Brazil"
Researchers: Alexander Moreira-Almeida, Jim Tucker, Lucam Moraes, Sandra Carvalho
Institution: Research Center in Spirituality and Health - NUPES, School of Medicine, Federal University of Juiz de Fora – UFJF (Brazil); Division of Perceptual Studies - DOPS, School of Medicine, University of Virginia, Charlottesville (USA)
Estimated duration: 2020/01 – 2022/04

92/18 – "Attending mindfully: A psychophysiology study of sensory processing in meditators"
Researchers: Veena Kumari, Rakesh Pandey
Institution: Centre for Cognitive Neuroscience, Department of Life Sciences, Brunel University London, Uxbridge (UK); Department of Psychology, Banaras Hindu University, Varanasi (India)
Estimated duration: 2019/04 – 2021/04

104/18 – "Effect of mindfulness on EEG brain activity for cognitive and psychological well-being in the elderly"
Researchers: Samantha Galluzzi, Davide Moretti, Mariangela Lanfredi, Laura Pedrini, Roberta Rossi
Institution: IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli, Brescia (Italy)
Estimated duration: 2019/02 – 2021/12

111/18 – "Does rhythm enhance recognition memory? Evidence from behaviour and electroencephalogy"
Researchers: Emma Ward, Alexander Jones, Jon Silas, Wayne Anderson
Institution: The Behavioural, Affective, and Cognitive Neuroscience research group - BACneuro, Psychology Department, Middlesex University, London (UK)
Estimated duration: 2019/09 – 2021/08

121/18 – "Effects of subconscious, nonlocal, and retroactive information on participants' choice/decision and neural activities"
Researcher: Liang Shan
Institution: School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu (China)
Estimated duration: 2019/02 – 2021/09

125/18 – "Distinct psychophysiological profiles associated with experiencing the pain of others"
Researchers: Jamie Ward, Mengze Li
Institution: School of Psychology, University of Sussex (UK)
Estimated duration: 2019/03 – 2020/09

127/18 – "Can the conscious observer affect the collapse of the wavefunction?"
Researchers: Yaïr Pinto, Eric-Jan Wagenmakers
Institution: Department of Psychology, University of Amsterdam (The Netherlands)
Estimated duration: 2019/01 – 2021/12

135/18 – "The physiological role of circadian rhythms in memory"
Researchers: Luísa Lopes, Miguel Remondes, Ana Morgado, Joana Coelho
Institution: Instituto de Medicina Molecular - João Lobo Antunes, Lisboa (Portugal)
Estimated duration: 2019/01 – 2021/12

144/18 – "The motor roots of acting together: A psychophysiological investigation"
Researchers: Marta Bortoletto, Corrado Sinigaglia
Institution: IRCCS Istituto Centro San Giovanni di Dio Fatebenefratelli, Brescia (Italy); Centre for the Study of Social Action, Università degli Studi di Milano (Italy)
Estimated duration: 2019/03 – 2021/01

150/18 – "A neuroscience approach to investigating how hierarchy influences moral behaviour"
Researchers: Axel Cleeremans, Emilie Caspar
Institution: Center for Research in Cognition and Neuroscience, Université Libre de Bruxelles (Belgium); Department of Behavioural Sciences, Royal Military Academy, Brussels (Belgium)
Estimated duration: 2019/10 – 2023/09

156/18 – "Mind and matter correlated in a matrix"
Researcher: Ana Flores
Institution: Department of Psychosomatic Medicine and Psychotherapy, University Medical Center Freiburg (Germany)
Estimated duration: 2019/07 – 2020/12

169/18 – "Temporal decoding of selective recollection with psychophysiology"
Researchers: Alexa Morcom, Arjen Alink
Institution: School of Psychology, University of Sussex (UK)
Estimated duration: 2019/06 – 2021/03

188/18 – "COping with PAin through Hypnosis, mindfulness and Spirituality (COPAHS)"
Researchers: Maria Alexandra Ferreira Valente, José Luís Pais Ribeiro, Mak Philip Jensen, Ana Filipa Pimenta, Rui Miguel Costa, Melissa Day
Institution: William James Center for Research, ISPA – Instituto Universitário, Lisboa (Portugal); Department of Rehabilitation Medicine, University of Washington, Seattle (USA)
Estimated duration: 2019/10 – 2022/09

198/18 – "Sense of agency in the Ouija board experience"
Researchers: Gethin Hughes, Peter Gooding
Institution: Department of Psychology, University of Essex (UK)
Estimated duration: 2019/04 – 2020/09

204/18 – "Boosting WM capacity by strengthening the oscillatory functional fronto-parietal pathway"
Researchers: Vincenzo Romei, Claudia Poch
Institution: Centre for studies and research in Cognitive Neuroscience – CsrNC, Department of Psychology, University of Bologna (Italy)
Estimated duration: 2019/03 – 2020/08

210/18 – "Mind-matter interactions and the frontal lobes of the brain"
Researchers: Morris Freedman, Robert Chen, Malcolm Binns
Institution: Division of Neurology, Baycrest Health Sciences, Toronto (Canada); Division of Neurology, University Health Network - UHN, Toronto (Canada)
Estimated duration: 2019/07 – 2022/07

220/18 – "Mind-shaped body: A new conceptual framework beyond the placebo effect connecting expectations to disease outcome"
Researchers: Francesco Pagnini, Paolo Banfi, Cesare Cavalera, Eleonora Volpato
Institution: Department of Psychology, Università Cattolica del Sacro Cuore, Milan (Italy); Respiratory Rehabilitation Unit, Fondazione Don Carlo Gnocchi, Milan (Italy)
Estimated duration: 2019/02 – 2021/01

269/18 – "Electrophysiological and genetic factors associated with hypnosis, suggestibility and hypnotic phenomenology"
Researchers: William McGeown, Irving Kirsch, Giuliana Mazzoni, Rothwelle Tate, Annalena Venneri
Institution: School of Psychological Sciences and Health, University of Strathclyde, Glasgow (UK)
Estimated duration: 2019/06 – 2020/11

281/18 – "A replication project to acquire pragmatically useful information from the future"
Researchers: Stephan Schwartz, Randall DeMattei, Debra Katz
Institution: Atlantic University, Virginia Beach (USA)
Estimated duration: 2019/01 – 2020/12

287/18 – "More thankful, less stressed? Gratitude and physiological reactions to stress"
Researchers: Brenda O'Connell, Stephen Gallagher, Brian Leavy
Institution: Centre for Mental Health & Community Research, Department of Psychology, Maynooth University (Ireland); Study of Stress, Anxiety and Health Laboratory, Department of Psychology, University of Limerick (Ireland)
Estimated duration: 2019/09 – 2022/09

293/18 – "The middle-age brain"
Researchers: Marinella Cappelletti, Maria Herrojo Ruiz
Institution: Department of Psychology, Goldsmiths, University of London (UK)
Estimated duration: 2019/03 – 2021/03

296/18 – "The power of mind: Altering cutaneous sensations by autosuggestion"
Researchers: Elena Azanon, Esther Kuehn
Institution: Institute of Psychology, Faculty of Natural Sciences, Otto-von University, Magdeburg (Germany)
Estimated duration: 2019/07 – 2022/07

306/18 – "The neural circuitry underlying error monitoring during social cognition"
Researchers: Teresa Sousa, Miguel Castelo-Branco, João Castelhano, Verónica Figueiredo, Andreia Pereira
Institution: Institute for Nuclear Sciences Appplied to Health – ICNAS, University of Coimbra (Portugal)
Estimated duration: 2019/10 – 2022/04

312/18 – "Mapping the neurophenomenology of the wake-sleep transition"
Researchers: Tristan Bekinschtein, Alejandro Ezquerro-Nassar, Jon Simons, Valdas Noreika
Institution: Consciousness and Cognition Laboratory, Department of Psychology, University of Cambridge (UK)
Estimated duration: 2019/05 – 2020/10

318/18 – "Changing human time perception in virtual reality emotional priming: A transcranial direct current stimulation study"
Researchers: André Silva, Ana Costa, Luke Jones, Ana Gomes
Institution: Centro de Investigação do Núcleo de Estudos e Intervenção Cognitivo-Comportamental, University of Coimbra (Portugal); Division of Neuroscience and Experimental Psychology, University of Manchester (UK)
Estimated duration: 2019/04 – 2023/01

334/18 – "Inducing lucid dreams with optimized sensory cues"
Researchers: Benjamin Baird, Giulio Tononi, Stephen LaBerge
Institution: Department of Psychiatry, Wisconsin Institute for Sleep and Consciousness, University of Wisconsin – Madison (USA)
Estimated duration: 2019/03 – 2021/03

336/18 – "Research-inspired cognitive empowerment: Modulating Episodic Memory through Egocentric Navigational Training (MEMENT)"
Researchers: Giorgia Committeri, Carlo Sestieri, Matteo Frisoni, Agustina Fragueiro, Annalisa Tosoni
Institution: Department of Neuroscience, Imaging and Clinical sciences, Institute for Advanced Biomedical Technologies, University G. d' Annunzio of Chieti-Pescara (Italy)
Estimated duration: 2019/09 – 2021/08

344/18 – "Encoding of the kinematics of observed actions in the responses of mirror neurons"
Researcher: Antonino Casile
Institution: Center for Translational Neurophysiology - CTNSC, Fondazione Istituto Italiano di Tecnologia, Genova (Italy)
Estimated duration: 2019/04 – 2021/03

355/18 – "The implicit cognition of interpersonal attraction"
Researchers: Joana Arantes, John Wearden, Mavilde Arantes, Emanuel Albuquerque
Institution: Psychology Research Center - CIPsi, School of Psychology, University of Minho, Braga (Portugal)
Estimated duration: 2019/06 – 2022/05

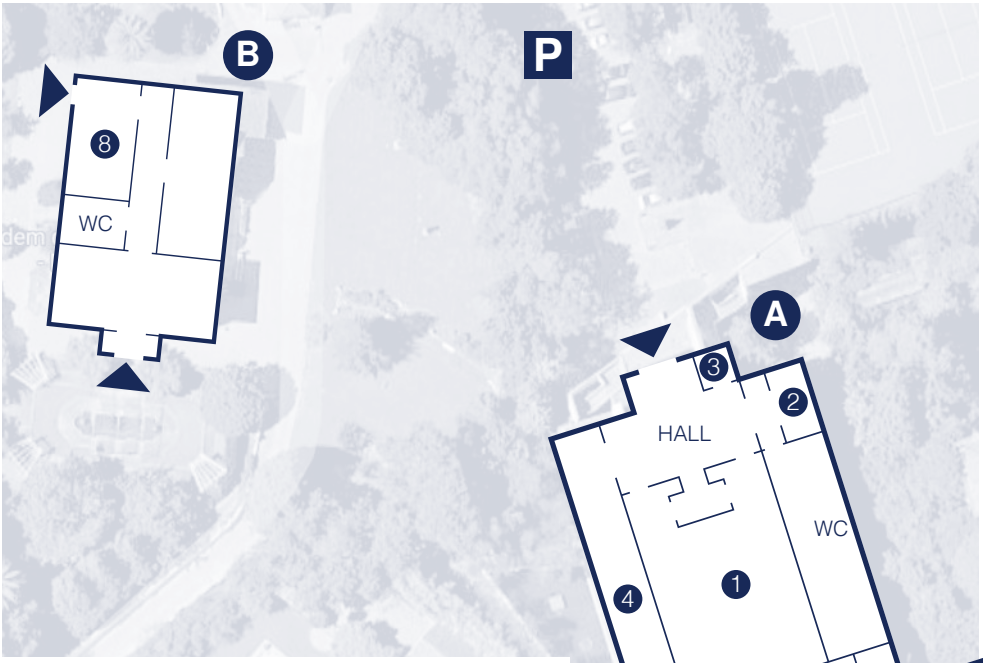
360/18 – "Dissecting dynamical components of complex decision-making using a computer game-based task"
Researchers: Gautam Agarwal, Zachary Mainen, Alfonso Renart, Mattia Bergomi
Institution: Champalimaud Centre for the Unknown, Lisboa (Portugal)
Estimated duration: 2019/01 – 2020/12

361/18 – "When style matters: Do oculomotor fingerprint and brain dynamics explain visual exploration and memory strategies?"
Researchers: Maurizio Corbetta, Andrea Zangrossi
Institutions: Venetian Institute of Molecular Medicine - VIMM, Fondazione per la Ricerca Biomedica Avanzata, Padova (Italy); Padova Neuroscience Center – PNC, Università di Padova (Italy)
Estimated duration: 2019/04 – 2020/09

2020

30/20 – "Exploring the role of "enchantment" in psi phenomena"
Researchers: Rense Lange, James Houran
Institutions: Integrated Knowledge Systems – IKS, Chatham (USA); ISLA – Instituto Politécnico de Gestão e Tecnologia, Vila Nova de Gaia (Portugal)
Estimated duration: 2021/06 – 2022/04

Main speakers index



A CASA DO MÉDICO

1. AUDITORIUM
   MAIN SESSIONS & WORKSHOP 1
2. SECRETARIAT
3. DRESSING ROOM & EARPHONES
4. COFFEE & POSTERS
5. BAR
6. ROOM BRAGA - WORKSHOP 4
7. ROOM MEDICOTECA - WORKSHOP 3

B ORDEM DOS MÉDICOS

8. ROOM CONFERÊNCIAS
   WORKSHOP 2

FUNDAÇÃO Bial
Instituição de utilidade pública
Institution of public utility

À Av. da Siderurgia Nacional
4745-457 Coronado (S. Romão e S. Mamede)
Portugal
Tel. + 351 22 986 6150
www.fundacaobial.com • fundacao@bial.com