# Confirmed speakers

**Professor Nashat Abumaria, PhD.**
Professor and Principal Investigator
State Key Laboratory of Medical Neurobiology
MOE Frontiers Center for Brain Science
Institutes of Brain Science
Shanghai Medical College, Fudan University, China

Nashat Abumaria has been a professor and principal investigator at the State Key Laboratory of Medical Neurobiology, MOE Frontiers Center for Brain Science and Institutes of Brain Sciences, Fudan University, Shanghai, China, since 2015. He obtained his PhD from the University of Göttingen in Germany within the International Max-Planck Research Program for Neuroscience (IMPRS). The Program Dean is Nobel laureate Erwin Neher. The prestigious Christoph-Lichtenberg fellowship by the Government of Lower-Saxony supported Dr. Abumaria. He did a short postdoc fellowship in Prof. Eberhard Fuchs' Lab (Winner of the German presidential award for lifetime achievement) at the German Primate Center, Goettingen, Germany. In 2007, he moved to China and did a postdoc fellowship in Prof. Liu Guosong's Lab at the School of Medicine, Tsinghua University, Beijing, China. In 2011, he was appointed as a research associate professor in the Department of Basic Medical Science, School of Medicine, Tsinghua University. His work at Tsinghua University focused on mechanisms of enhancing synaptic plasticity and cognitive functions, including fear memories (In collaboration with the noble laureate Susumu Tonegawa's Lab at MIT and Min Zhou's lab at Toronto University). Dr. Abumaria has published numerous peer-reviewed scientific papers. He has been awarded several research grants, including China postdoctoral research funding, the National Natural Science Foundation of China (NSFC) grant for young investigators, as well as several other NSFC grants, 973 Science & Technology, and 985 talent recruitment grants. In 2024, he received the prestigious "China International Senior Scientists fund". The fund is

considered the highest research fund that a foreign scholar can obtain at the individual level from NSFC. He serves as editor, associated editor and reviewer for several scientific journals.

Abstract:

**Regulation of behavioral switch when facing prolonged uncontrollability or repeated failure.**

The ability to persist in the face of failure can help overcome challenges. However, sometimes it's advantageous to adjust our behavior, quit or give up when we face uncontrollable situations. Currently, it's unclear how the mammalian brain switches behavior in response to uncontrollability. To explore this, we developed and validated two mouse models demonstrating a transition from action to no-action during exposure to prolonged uncontrollable experiences. This switch was not due to pain desensitization or muscle fatigue, and it wasn't similar to depression / learned helplessness / anxiety / social / exploratory deficits-like behavior. Serotonin and dopamine did not modulate the behavioral transition. Instead, it's modulated by noradrenergic neurons that project to GABAergic neurons within the orbitofrontal cortex (OFC). We discovered that a reduction of norepinephrine and downregulation of alpha 1 receptor in the OFC decreased the number and activity of GABAergic neurons, which are necessary for driving action behavior via disinhibitory circuit. Our findings define a circuit that governs adaptive behavioral switches relevant to give-up-like behavior. Currently, we are establishing reward-based animal models of behavioral switch in response to uncontrollability, exploring the neural circuit regulates this switch and comparing it with that of aversive-based experience.

**Professor Jonas Everaert, PhD.**
Associate Professor
TSB: Tilburg School of Social and Behavioral Sciences
TSB: Department of Medical and Clinical Psychology
University of Tilburg, The Netherlands

Jonas received his PhD in 2015 from Ghent University. Before joining Tilburg University, he conducted postdoctoral research at KU Leuven, Ghent University, and Yale. In 2021, Jonas received the Rising Star Award from the Association of Psychological Science. Additionally, Jonas is an honorary research fellow at King's College London.

Abstract:
**Resolving ambiguity in depression: The role of Interpretation bias and inflexible belief updating in the lab and everyday daily life**
Depression is characterized by difficulties in interpreting ambiguous social situations. In this talk, I will present empirical evidence from lab studies and experience sampling research demonstrating biases toward generating more negative and fewer positive interpretations of ambiguity, along with difficulties in updating initial negative interpretations when faced with contradictory positive evidence. Additionally, I will discuss socio-affective pathways through which these biased and inflexible interpretations contribute to the development and persistence of depressive symptoms.

**Professor Łukasz Gawęda, PhD.**

Deputy Director for Science
Experimental Psychopathology Lab (Head)
Institute of Psychology
Polish Academy of Sciences, Warsaw, Poland

**Dr Beata Godlewska, PhD.**
Clinical researcher, honorary consultant psychiatrist
Department of Psychiatry
Oxford University
Oxford, UK.

I am a Senior Clinical Scientist and an Honorary Consultant Psychiatrist at the Department of Psychiatry, University of Oxford. Throughout my career, which started at the Medical University of Gdansk in Poland, I have been committed to translational research, and employed state-of-the-art neuroimaging (fMRI and MRS at 3T/7T, PET) to answer scientific questions with the aim of practical applications. One key theme has been understanding of mechanisms of action of antidepressants and development of response biomarkers, including early changes in brain response to emotional information, resting state brain activity, or neurotransmitters (such as glutamate/glutamine) turnover, as predictors of response in depressed patients. Another key theme in my research has been the development of novel, and repurposing of existing (such as ebselen and pramipexol), medications as treatments for depression. My other area of interest is biology and treatment in ME/CFS, and fatigue in general. One of my current research interests is the development of the novel methodology of functional MRS (fMRS), measuring neurochemical changes during brain activity. This approach explores the hypothesis that pathologies may manifest themselves when biological systems are challenged, and capacity to compensate exceeded. Outside of my research, I take great pleasure in engagement in endeavours aiming at improving lives of academics: I act as the Research Staff Representative for the Department of Psychiatry and I am actively involved in work of People and Culture Committee, to increase equality, diversity and inclusivity, and the Academic Career Development Working Group, supporting the development of research

staff careers. I teach and supervise students at different levels, including PhD students and trainees in psychiatry. I am a Neuroimaging section editor of the British Journal of Psychiatry.

Abstract:
**Bridging Psychological and Pharmacological Approaches in Depression Treatment: Insights from Emotional Processing and Neuroimaging Research**
Traditionally, psychological and pharmacological approaches to depression have been regarded as distinct and opposing treatment modalities. However, over the past two decades, this perspective has evolved, driven by emerging theories and experimental studies utilizing psychological assessments and neuroimaging to examine the interplay between emotional cognitive bias and brain function. In this presentation, I will discuss our research demonstrating how antidepressants modulate emotional processing from the earliest stages of treatment, both in healthy individuals and patients with depression - an effect that precedes observable clinical improvement. I will explore the implications of these findings for treatment response and their translation into clinical practice, including early prediction of therapeutic outcomes, personalized medication selection, and the development of novel pharmacological interventions for depression and anxiety.

**Dr Justyna Hinchcliffe, PhD.**
Senior Research Associate
School of Physiology, Pharmacology & Neuroscience
University of Bristol, Bristol, UK.

Dr Justyna Hinchcliffe works at the University of Bristol. Her work encompasses behavioural psychopharmacology and animal welfare. Her research focus is on the neuropsychological mechanisms contributing to the development of the affective biases in depressive disorder, and the neural mechanisms underlying the efficacy of conventional antidepressants versus rapid-acting antidepressants utilizing translational rodent behavioural models. In 2024, she received the British Association for Psychopharmacology ‘Junior Non-clinical

Psychopharmacology Award' for her work. Currently, she's interested in developing simple, graded and objective methods for measuring rodents' affective state, such as recording ultrasonic vocalisations, and refinements of the techniques used in behavioural neuroscience to improve rodents' animal welfare.

Abstract:

**Squeak to me: what affective biases and ultrasonic vocalisations can tell us about the emotional state of laboratory rats?**

A better understanding of animal emotions and the ability to quantify their affective state reliably is critical for research in many fields, from looking into modelling symptoms of depression in rodents to measuring their welfare in the laboratory environment. Conventional methods for assessing the emotional states in rodents lack specificity, sensitivity and can demonstrate a low translational value. Over the years, we have worked to develop, optimise and validate methods to reliably and objectively quantify emotional states in rodents based on affective state-induced biases in decision-making under ambiguity, and reward learning and memory. This talk will review my key findings on the application and validation of these methods i.e., the operant version of the judgement bias task and the affective bias test, and how these assays can be utilised to ask novel welfare questions regarding housing e.g. use of playpens, handling e.g. tickling as a method of handling, and general husbandry e.g. cross-species emotional contagion, of laboratory rats. Moving from the research in the affective biases field, I will further demonstrate how rats' ultrasonic vocalisations, especially 50kHz calls, and their further validation can provide a quantifiable, simple and graded measure of positive affect in laboratory rodents.

**Dr Sakumi Iki, PhD**
JSPS Postdoctoral Fellow
Center for the Evolutionary Origins of Human Behavior
Kyoto University, Japan

Dr. Sakumi Iki is a Program-Specific Assistant Professor at Hakubi Center for Advanced Research and Center for the Evolutionary Origins of Human Behavior, Kyoto University, Japan. He has conducted fieldwork and laboratory-based research on primates to investigate social cognition and the interactions among emotion, behavior, and cognition. His research encompasses a broad range of topics, including judgment bias in nonhuman primates, the evolutionary origins of play behavior, communication during social play in monkeys, the social determinants of vigilance behavior, and the psychological triggers of self-scratching. In 2023, he received the Takashima Prize from the Primate Society of Japan in recognition of his contributions to the field of primatology.

Abstract:
**From Scratching to Pessimism: Exploring Emotion-Cognition Links in Nonhuman Primates**

When we feel sad, tears may flow, our hearts ache, we lose hope for the future, and our mood darkens. In this way, emotions arise from a complex interplay between bodily reactions and mental changes. Philosopher and psychologist William James famously wrote, “we feel sorry because we cry, angry because we strike, afraid because we tremble,” rather than “we cry, strike, or tremble, because we are sorry, angry, or fearful” (James, 1884). His statement suggests that emotional bodily responses (such as crying) may precede and shape cognitive changes (such as feeling sorrow). Later research on humans has shown that bodily responses and shifts in cognitive processing (e.g., thinking and judgment) can influence each other bidirectionally. However, whether nonhuman animals share similar mechanisms remains unclear. To explore this question, I conducted a touchscreen-based go/no-go judgment bias test on captive monkeys (Japanese macaques, Macaca fuscata). Specifically, I examined the relationship between self-scratching—a behavior associated with negative emotions—and pessimistic judgment bias—a cognitive tendency to expect unfavorable outcomes. The results revealed that soon after self-scratching, the monkeys were more likely to make pessimistic

judgments. However, making a pessimistic judgment did not necessarily lead to self-scratching. This suggests that, in monkeys, emotional bodily responses may precede cognitive changes. In humans, evidence indicates that a pessimistic mindset can influence bodily responses, yet this effect was not observed in the monkeys. These findings imply that humans and macaques may share certain emotional mechanisms while differing in other respects. Future studies may shed further light on the evolutionary origins of human emotional processing. In this talk, I will also present our recent work using the same experimental paradigm to investigate judgment biases induced by predator-related and infant-related stimuli.

**Dr Megan Jackson, PhD.**
Senior Research Associate
School of Physiology, Pharmacology & Neuroscience
University of Bristol, UK.

Megan is a Senior Research Associate at the University of Bristol. Her research utilises innate, species-specific foraging behaviour in mice to study motivated behaviours. Using a combination of tools including pharmacological manipulations, phenotypic models and neuronal recording, Megan aims to understand the pathways involved in innate motivation and its divergence from effort-based operant conditioning paradigms.

Abstract:

**When the glass is empty: a species-specific approach for understanding apathy syndrome**

Apathy is a prevalent syndrome characterised by a deficit in motivation alongside emotional blunting. It is shared across multiple neuropsychiatric and neurodegenerative disorders, as well as otherwise healthy ageing. A greater understanding of this syndrome may lead to improved treatment outcomes across multiple patient populations. At the preclinical level, motivational state is traditionally assessed in operant tests, and requires food restriction to motivate the rodent to perform a conditioned response. Animals monitored in more naturalistic environments may display more ethologically-relevant behaviours of greater

translational value. Here, I will present the Effort Based Forage (EBF) task, which is based on the intrinsic drive to forage for nesting material. In this task, motivated behaviour is quantified by the amount of nesting material foraged from a custom designed 'bedding box', which requires varying degrees of effort to obtain. The task provides a rapid readout of motivational state without the need for food/water restriction or prolonged training times. It has shown sensitivity to a range of pharmacological manipulations, with surprising differences in direction of effect to an effort-based operant conditioning task. In this talk I will present these differences and discuss what this may mean in the context of translational research.

**Professor Michael T. Mendl, PhD.**
M.A., Ph.D.(Cantab.), BA (Hons)
Professor of Animal Behaviour and Welfare, Bristol Veterinary School
Animal Welfare and Behaviour
Bristol Neuroscience, Bristol, UK

Mike is Professor of Animal Behaviour and Welfare and Head of the Animal Welfare & Behaviour Research Group at the University of Bristol's Veterinary School where he has worked for over 25 years. He obtained his PhD from Cambridge University, worked as a Royal Society European Research Fellow at Groningen University, Netherlands and as a postdoctoral research fellow at Cambridge University, before moving to a faculty position at the Scottish Agricultural College, Edinburgh and then to Bristol. His research interests are in the study of behaviour, cognition, and emotion, with a view to using this information to assess and improve animal welfare. With Dr Liz Paul, he developed the 'cognitive bias' approach to the assessment of animal emotions which draws on theory and findings from human psychology and cognitive neuroscience and has now been used in over 200 published studies. Mike also has research interests in 'personality' differences in behaviour, decision-making and resilience, and in the relationship between housing and husbandry procedures and the health and welfare of farm, laboratory and zoo animals. He led the BBSRC and UFAW Animal Welfare Research Network for 6 years from its inception in 2016.

Abstract:

**Judgement bias as an indicator of affective valence: origins, progress and challenges**

Affect-related alterations in decision-making under ambiguity ('judgement biases') are one category of cognitive-affective bias. In early work, we proposed that associations observed in humans between reported emotional states and altered attention, memory and decision-making processes might generalise to non-human animals and provide novel 'cognitive bias' markers of animal affect. This proposal was strengthened by arguments that such affect-cognition links have adaptive value and are therefore likely to be conserved across a wide range of species. In terms of judgement bias, there are now over 200 published studies in taxa ranging from mammals and birds to fish, cephalopods and insects. Recent meta-analyses indicate that, as in humans, animals in assumed negative affective states are more likely to make risk-averse (often labelled 'pessimistic') responses to ambiguous situations than those in positive states. Despite overall support for the utility of judgement biases as indicators of affective valance, there is heterogeneity in findings with some studies reporting null or even opposite effects. Possible reasons for this include that: experimental manipulations of affect have not induced the predicted state; judgement biases may reflect a combination of several decision-making processes (e.g. probabilistic estimation of outcome likelihood; valuation of outcome) that are differentially influenced by affective state; personality or trait differences in 'optimism' or 'pessimism' may muddy the influence of affect manipulations; subjects may fail to attend to trial initiations during testing leading to responses that are erroneously categorized as 'pessimistic'. I discuss responses to these challenges including: implementing operational definitions of affective state; the use of computational modelling of decision data to better understand underlying influences of affective state on decision-making processes in humans and rats; the study of personality differences in 'optimism'; development of self-initiated judgement bias tasks that could be transferred to the home cage and even into the wild.

**Professor Emma Robinson, PhD.**
School of Physiology, Pharmacology & Neuroscience
Faculty of Life Sciences
University of Bristol, UK

Emma completed her BSc(Hons) in Pharmacology in Bristol in 1995. Sponsored by the BBSRC and Knoll Pharmaceuticals, she completed a PhD in Psychopharmacology in Bristol supervised by Prof David Nutt, Dr Alan Hudson and Dr Helen Jackson. Following a five year teaching post, she was awarded an RCUK Academic Fellowship co-funded by the British Pharmacological Society Integrative Pharmacology Fund. As part of this Fellowship, Emma worked with Prof Robbins and Jeffery Dalley at the University of Cambridge, Experimental Psychology Department. Now based in Bristol's School of Physiology and Pharmacology, and a Reader in Psychopharmacology, Emma's research focuses on studies to investigate the neural and neurochemical mediators of normal cognitive and emotional behaviour and how these may be disrupted in psychiatric disorders such as depression, anxiety and addiction.

Abstract:
**Turning the glass from half empty to half full: investigating neuropsychological mechanisms and rapid-acting antidepressants**
Despite the availability of antidepressant treatments for more than 60 years and extensive clinical and pre-clinical research, the mechanisms underlying their efficacy remain elusive. Our research focuses on affective bias modification and recent studies in our rodent models have shown that conventional versus rapid-acting antidepressants exhibit distinct neuropsychological effects. Our most recent studies with the psychedelic, psilocybin, suggest a unique profile of effects including the ability to change to affective bias associated with past experiences. We have also begun to explore the neural and molecular mechanisms underlying these effects. This talk will summarise our behavioural studies and discuss some of our recent explorations using in vivo and ex vivo imaging and electrophysiology.

**Prof. David Slattery, PhD.**
Department of Psychiatry, Psychosomatics and Psychotherapy
Goethe University in Frankfurt,
Frankfurt, Germany

Dr. David Slattery is a W2 Professor of Translational Psychiatry at Goethe University Frankfurt and the Department of Psychiatry, Psychosomatic Medicine, and Psychotherapy at University Hospital Frankfurt.
With a background in pharmacology and neurophysiology, Dr. Slattery completed his PhD at the University of Bristol and Organon Laboratories Ltd, supervised by Prof. David J. Nutt. He subsequently received his Habilitation from the University of Regensburg, where he also served as Acting Professor of Neurophysiology.
Dr. Slattery's research focuses on the neurobiology and treatment of stress-related disorders, with a particular emphasis on mood and anxiety disorders. His work explores postpartum mood and anxiety disorders using stress- and diet-based rodent models, the role of neuropeptides in affective disorders, the molecular mechanisms underlying Social Anxiety Disorder, and sex differences in the etiology and treatment of stress-related conditions.

Abstract:
**Cognitive flexibility in neurodevelopmental and Alzheimer's disease mouse models**

Cognitive flexibility, the ability to adapt thoughts and behaviours in response to changing circumstances, is essential for learning, problem-solving, social interactions, and mental health. This flexibility is primarily regulated by neural circuits involving the prefrontal cortex, which undergoes significant changes during key developmental stages and is impaired in various neuropsychiatric and neurological disorders. Here, we will describe our findings in two distinct knockout mouse lines that assess neurodevelopmental and neurodegenerative disorders, namely, attention-deficit hyperactivity disorder, autism spectrum disorder and Alzheimer's Disease. Thus, we will present our findings showing the role of the Rbfox1, an

RNA-binding protein linked with multiple psychiatric and neurological disorders, and APP/PS1 mutant mice, two risk genes for Alzheimer's Disease, in cognitive flexibility, and other behavioural domains.

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**More invited speakers will be announced soon!**

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