

The gut bacterial has major impact on the brain development, behaviour and host immune system through the microbiota-gut-brain axis.

Objectives: The objective of the research is to establish the role inflammation induced by gut dysbiosis plays in behavioural changes of patients suffering from major depressive disorders.

Methods: Clinical data and preclinical experiments were used to elucidate the role gastrointestinal bacterial play in the development and functional physiology of the nervous system and because of the bidirectional communication between the enteric nervous system in the gut and the central nervous system, through the vagal plexus, blood circulation and endocrine system; it was discovered that the appropriate population of intestinal microbiota affect the immunological state of the brain.

Results: The intestinal microbiota has been able to maintain the attenuation and regulation of pro-inflammatory biomarkers in the brain and such had assisted in the healthy state of the brain; however, a disruption of gastrointestinal organisms in a condition called dysbiosis could result in breakdown of protective gastrointestinal mucosa barrier resulting in leaky gut and consequently, the permeability of the gut lining and migration of some bacteria, to the brain through the vagal networks and other channels.

These pathophysiological cascades appear to be triggered or sustained and reinforced by chronic inflammatory condition involving increased circulating markers of inflammation, which are able to cross the blood brain barrier to activate the microglia.

Conclusions: Studies in depression suggest that inflammatory biomarkers such as C-reactive protein can be used to enrich samples for anti-inflammatory clinical trials for depression that target inflammation-related symptoms such as anhedonia and anxiety.

Although, still at the developmental stages, imaging of neuroinflammation will help establish a target in the brain to further facilitate the testing of anti-inflammatory therapies for depression.

Disclosure of Interest: None Declared

EPV0643

Dynamics of neurocognitive impairments in patients with chronic alcoholism of the second stage

L. Baranskaya^{1*}, E. Babyshkina² and A. Sidenkova²

¹Psychiatry, Psychotherapy and Narcology and ²Ural State Medical University, Yekaterinburg, Russian Federation

*Corresponding author.

doi: 10.1192/j.eurpsy.2024.1298

Introduction: Neuropsychological disorders in patients with alcoholism intensively studied since the mid-70s of the last century. Research in this area divided into three groups: the study of premorbid neuropsychological features of alcohol dependence; study of neuropsychological disorders of chronic alcohol use; study of the prognostic value of neuropsychological disorders in patients suffering from alcohol dependence. In domestic neuropsychology, is the necessary information about the neuropsychological characteristics of patients suffering from alcohol dependence, neuropsychological manifestations in cognitive processes.

Objectives: to identify neuropsychological features of patients suffering from alcohol dependence with a diagnosis of stage 2 alcoholic disease

Methods: A neuropsychological examination was carried out according to the method of A.R. Luria of 39 patients aged 29 to 68 years with a diagnosis of stage 2 alcoholic disease. The group of patients is divided into 3 subgroups of alcohol abuse: up to 10 years, 10-20 years; more than 20 years.

Results: Disorders of higher mental functions identified in all subgroups. In chronic alcoholic encephalopathy, there is a tendency to increase cognitive deficits. According to the results of the neuropsychological examination, it was found that the greatest disorders in patients of the first subgroup occur in the implementation of successive processes (memory, thinking), arbitrary regulation of activity, and also relate to the regulatory aspects of memory, attention, thinking and speech.

In patients of the second subgroup, the most numerous in this sample, violations of visual object gnosis were revealed, as well as a violation of the synthesis of information necessary to endow the image of the object with a certain meaning. In patients of the third subgroup, pronounced disorders inherent in the first and second subgroups were found, as well as distortions in the identification of emotions, that is, the inability to compare emotional objects with an emotional standard, which indicates signs affective-cognitive deficit in alcoholic disease of the second stage.

Conclusions: In the study, the dynamics of neuropsychological disorders in patients with alcohol disease of the second stage, depending on the experience of alcohol abuse, found

Disclosure of Interest: None Declared

EPV0645

Embodied cognition and urban design: Thoughts through epigenetic advances

E. Abdelmoula^{1*}, B. Abdelmoula² and N. Bouayed Abdelmoula²

¹LR AMC, Ecole Doctorale Sciences et Ingénierie Architecturales (ED-SIA), Tunis and ²Genomics of Signalopathies at the service of Precision Medicine - LR23ES07, Medical University of Sfax, Sfax, Tunisia

*Corresponding author.

doi: 10.1192/j.eurpsy.2024.1299

Introduction: In the history of urban planning, the cognitive trend has been a well-established entity since the work of the American urban planner during the mid-'90s; Kevin Lynch. However, for a long time, urban planning has been deprived of the contribution of scientific knowledge from cognitive neurosciences, with a lack of operational recommendations for urban projects.

Objectives: This study aims to reveal the role of embodiment theories in the revolution of urban design and urban projects through emerging findings in epigenetics and post-genomic biology.

Methods: We conducted an exhaustive review of the scientific literature to establish the relationship between embodied cognition and urban design through advances in epigenetics as well as potential applications of such finding. Our inquiry was to find out whether there was a scientific way to measure and quantify the performance of urban spaces.

Results: Our review revealed that, epigenetics and epigenomics have provided new explanations and perspectives to certain debates on the theory of embodied cognition and that of enaction. Epigenetic marks constitute a bodily memory that enables cognition to

emerge as a function of the level of adaptation to the environment. In fact, embodiment refers to thoughts, emotions and behaviors based on sensory experiences and bodily positions, while the enactment is a way of conceiving cognition that focuses on the way in which human organisms and minds organize themselves in interaction with the environment.

Conclusions: Cognition is the result of a level of adaptation to the environment determined by physiological parameters that confer possibilities of action depending on previous interactions with the environment. The regulation of epigenetic marks which are technically quantifiable is now recognized as the fundamental mechanism involved in the brain's ability to create, dismantle or reorganize neural networks throughout life depending on various experiences including environmental ones.

Disclosure of Interest: None Declared

EPV0646

Revisiting Panksepp: a review of his contributions to neuropsychanalysis

S. E. Ilgin^{1*}, S. Hiçdönmez¹ and H. Atalay²

¹Psychiatry, Marmara University Research & Training Hospital and

²Psychiatry, Yeditepe University Hospital, Istanbul, Türkiye

*Corresponding author.

doi: 10.1192/j.eurpsy.2024.1300

Introduction: Panksepp paved the way for neuropsychanalysts to better delineate the differences between emotions, feelings, and affect, and their evolutionary purposes. Affect pertains to an individual's capacity to engage in emotional responses to stimuli, events, memories, and thoughts, while feelings denote the conscious perceptions of emotions, which are primarily social in nature.

Feelings are personal and biographical, while affect remains largely impersonal. Panksepp's theory of basic affective systems in mammals, dividing emotions into positive and negative categories, is another major contribution to neuropsychanalysis. Three primary emotions -joy, fear, and disgust- have been identified in humans, which are associated with specific peptides and monoamines (e.g., dopamine and endorphins for joy, norepinephrine and CRH for fear, serotonin and substance P for disgust). These basic emotions are thought to have evolved to address basic life tasks in a phylogenetic and ontogenetic primary stage.

Objectives: This study aims to provide an overview of Jaak Panksepp's theories and assertions on the journal *Neuropsychanalysis*.

Methods: The authors employed a neuropsychanalytic approach to analyse articles published in the *Neuropsychanalysis* journal between 2015-2023.

Results: Emotions primarily function to maintain homeostasis and protect the organism, as in fight or flight responses. In social animals, emotions can sometimes be recognized among individuals of the same and different species. The neurobiological basis of emotional transfer and empathy-like behaviors shed light on cross-species emotion transfer.

Conclusions: The facial feedback hypothesis and the interoceptive inference theory are also discussed as examples of theories for the recognition of emotions as well as the neural mechanisms involved in emotion perception and recognition.

Jaak Panksepp's valuable insights shed light on the mysteries of human affect, and lay the foundation for future work in the field.

Disclosure of Interest: None Declared

EPV0647

The role of cerebral-cognitive reserve in the birth of a child with Alzheimer's in late-life individuals

A. Sidenkova

Psychiatry, Ural State Medical University, Yekaterinburg, Russian Federation

doi: 10.1192/j.eurpsy.2024.1301

Introduction: The modern understanding of AD allows us to consider it through the constructs of "vulnerability" and "stability" of the brain in relation to the pathological effects of neurodegeneration. To describe the resistance of the brain to a developing lesion due to a pathological process, the concept of "reserve" is proposed.

Objectives: A systematic review of scientific studies was conducted.

Methods: The review includes an analysis of full-text literature sources.

Results: Resilience models based on reserves are described, which can be broadly divided into cerebral and cognitive reserve models. The quality of the brain substrate underlies the cerebral reserve. Its role and power are determined by the ratio of healthy/affected neurons, the integrity of synaptic connections, and the size of the brain/ It seems to us that the conditions that promote or hinder the functioning of the brain should also be taken into account when characterizing the cerebral reserve. Cognitive reserve is determined by the phenomena of mental processes and functions. It includes the individual's involvement of the individual in various cognitively stimulating activities throughout life. Cognitive reserve plays a decisive role when it comes to determining the effectiveness of the activation of additional areas or the implementation compensatory strategies, behaving more flexibly and dynamically than the passive threshold. Brain and cognitive reserve models cannot be considered mutually exclusive. They reflect different categorical levels: substrate and functional. The cerebral reserve system is the morphological basis of the cognitive reserve. In fact, we can talk about a single cerebral-cognitive reserve.

Conclusions: The reserve concept states that there are individual differences in the adaptability of the functional processes of the brain that allow some people to cope with age-related and disease-related brain changes better than others. The reserve plays a protective role, postponing clinical manifestations and ensuring that adequate cognitive functioning is maintained. There is a transition from the protective role of the reserve to the compensatory function. Even after anatomical signs of brain damage are observed, the time to clinical conversion can be modulated depending on the volume of the reserve. The protection mechanisms underlying the reserve concept are partially controllable, which allows building strategies for correcting cellular homeostasis, brain functions, behavioral and cognitive patterns. Understanding the mechanisms of aging and the determinants of life expectancy will help reduce age-related morbidity and promote healthy aging.

Disclosure of Interest: None Declared