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Nonplanfulness", as well as positive associations with psychopathic "Social Potency" and "Stress Immunity" were found. Moderation analyses indicated a significant positive influence of psychopathic "Stress Immunity" and "Social Influence" on the relationship between emotional competence and cognitive parameters.

**Conclusions:** The findings highlight the importance of considering PPT in further research on depression and reflect their impact in therapeutic settings.

Disclosure of Interest: None Declared

### **Genetics and Molecular Neurobiology**

### **EPP0451**

# Mycobiota, neuro-cognitif disorders and behavioural impairments: is there a relationship?

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Introduction: The human body carries large and diverse communities of symbiotic microbes that are important for human health and development. While the impact of the bacterial microbiota, which are mostly found in the human gut, on host physiology is relatively well described, much less is known about the interactions between the mycobiota and the host and the resulting effects on human health. At the level of the nervous system, there is increasing evidence implicating the gut microbiota in a variety of neurological disorders. Similar demonstrations of a causal or supportive role of the mycobioma in neurological disorders are still rare, but several studies linking fungal dysbiosis to disease in humans suggest a contribution of symbiotic fungi to neurocognitive and behavioral disorders. Objectives: We aim through this review to show the role of mycobiota in neurocognitive and behavioral disorders.

**Methods:** We comprehensively review the scientific literature using Pubmed database and other search platforms such as Google scholar to state the role of mycobiota in neurocognitive and behavioral disorders.

Results: Our bibliographic review revealed that, according to recent studies, Candida species are overrepresented in the stool of individuals with autism spectrum disorders and Rett syndrome compared to healthy controls. Other studies revealed mycobiome signatures specific to cognitive impairment and demonstrated that different diets modulate the mycobiome in association with Alzheimer's disease markers and fungal-bacterial co-regulatory networks in patients with cognitive impairment.

Conclusions: Our understanding of the role of the mycobiota in the biology of neurocognitive disorders-whether causal, consequential, or predisposing-could open up new hypotheses in this area and inspire further research on potential mycobiotic signatures, associated dysbiosis and dysfunction in the neurocognitive developmental-homeostasis spectrum that may contribute to neurocognitive and behavioral developmental disorders and predisposition to cognitive decline, dementia, and progression of

neurodegenerative diseases including Parkinson's and Alzheimer's disease in high-risk subjects.

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#### **EPP0452**

## Schizophrenia may be considered as a member of the spectrum of PBAFopathies

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**Introduction:** Chromatin modifications and epigenetics are important pathogenesis mechanisms leading to various neurologic and psychiatric disorders including epilepsy, drug addictions, depression, autistic spectrum, learning disabilities and schizophrenia. Recently, the disruption of the chromatin remodeling BAF complex has been linked to several neurodevelopmental syndromes, commonly referred to as PBAFopathies.

**Objectives:** Here, we review the implication of PBAF complex genes in schizophrenia and we outline syndromes caused by mutations in these chromatin-modifying enzymes labelled as PBAFopathies to discuss the functional consequences of reported mutations in the literature.

**Methods:** We comprehensively review the scientific literature using Pubmed database and other search platforms such as Google scholar to state the role of PBAF complex genes in schizophrenia and to reveal the most frequent genes mutations reported in literature.

Results: Our review revealed that the human analogs of the subfamily of ATP-dependent chromatin remodeling complexes, which are known in eukaryotes as the mammalian SWI/SNF complex (counting a group of proteins that associate and possess a DNAstimulated ATPase activity that can destabilize histone-DNA interactions in reconstituted nucleosomes providing crucial nucleosome rearrangement and allowing the activation/repression of genes) are crucial for the regulation of genes expression and cells differentiation. They involve two well-known complexes which are SWI/ SNF-A (known as BAF complex) and SWI/SNF-B (known as Polybromo-associated BAF or PBAF complex). SWI/SNF is a multisubunit chromatin-remodeling complex that performs fundamental roles in gene regulation, cell lineage specification, and organismal development and mutations that inactivate SWI/SNF subunits are found in nearly 20% of human cancers and in various developmental disorders, forming a continuum or spectrum of diseases. Since the first description of BRG1/BRM mutations in schizophrenia, other mutations of the SWI/SNF subunits have been reported: SMARCA1, SMARCA2, SMARCA4/BRG1, etc. Single nucleotide polymorphisms (SNPs) in these and other genes of PBAF have been also associated with schizophrenia.

**Conclusions:** This review focuses on the PBAF SWI/SNF subunits to find out if schizophrenia may be considered as a member of the spectrum of PBAFopathies.

Disclosure of Interest: None Declared