

acetylcarnitine and free-carnitine levels assayed in plasma as potential markers of cognitive dysfunction in subjects with aMCI or early-AD.

Methods: We used available samples from two independent cohorts well characterized for clinical and neuropsychological characteristics together with ultraperformance liquid chromatography-tandem mass spectrometry and computational approaches. Cerebrospinal fluid (CSF) measures of b-amyloid accumulation and t-Tau levels were also available and used in computational modeling.

Results: Within the primary cohort, our data showed decreased levels of carnitine in relation to cognitive function as assessed by using the Mini Mental Status Exam (MMSE) in women but not men with CI as compared to age- and sex-matched HC. Furthermore, the magnitude of carnitine deficiency reflected the severity of cognitive dysfunction in a sex-specific manner (women: $p = 0.015$; men: $p = 0.441$). Our data also replicated the prior finding of decreased LAC levels in both women and men with AD, supporting the robustness of the study samples assayed in our new study. Using computational approaches, we found that the integration of these mitochondrial measures with canonical CSF biomarkers improves diagnostic accuracy. A second cohort provides a validation of the sex-specific relationship between free-carnitine deficiency and the severity of cognitive dysfunction.

Conclusions: Taken together with prior mechanistic studies in rodents, the current findings support future research on the development of individualized treatment models targeting sex-specific changes in mitochondrial metabolism.

Disclosure of Interest: None Declared

EPV1064

fNIRS and behavioral measures of inhibition are correlated with different aspects of impulsivity

A. D. S. Afonso Junior¹, W. Machado-Pinheiro², A. G. Seabra¹, M. A. Munoz³ and L. R. R. Carreiro^{1*}

¹Universidade Presbiteriana Mackenzie, São Paulo; ²Univeridade Federal Fluminense, Rio das Ostras, Brazil and ³Universidad de Granada, Granada, Spain

*Corresponding author.

doi: 10.1192/j.eurpsy.2025.1679

Introduction: Impulsivity implies difficulties in control, leading to non-premeditated actions, and troubles resisting distraction and remaining focused on a goal. It is a transdiagnostic construct that is associated with several disorders, including Attentional Deficit and Hyperactivity Disorder (ADHD), Borderline Personality Disorder and Obsessive-Compulsive Disorder (OCD). It is possible to divide impulsivity between impulsive actions, associated with the ability to inhibit actions, and choice impulsivity, that involves decision-making. It is also common to differentiate between trait impulsivity, that involves more stable characteristics, and state impulsivity, in which the impulsive behavior is more transient.

Objectives: To investigate the association between action impulsivity as a trait (using self-report measures) and as state (using different level of analysis in a computerized task, i.e., behavioral and neuroimaging measures).

Methods: 52 university students (mean age = 21.4; standard deviation = 3.33) filled the BIS-11 self-report questionnaires and completed a Stroop-matching/stop-signal task while they had

their behavioral and hemodynamic brain activity collected using Functional Near- Infrared Spectroscopy (fNIRS). The Stroop-matching/stop-signal task had three conditions varying the inhibitory demands: Congruent/Unrelated; Incongruent/Unrelated and Incongruent/Related. Spearman correlations were performed between scores of the BIS-11 subscales (Attentional, Motor and Non-planning impulsivity) and the reaction time (RT) and hemodynamic responses (β) of the Stroop-matching/stop-signal task. Alpha level = 0.05.

Results: RTs in all conditions of the task were positively correlated with Motor Impulsivity scores (Congruent/Unrelated, $\rho = .31$, $p = .025$; Incongruent/Unrelated, $\rho = .27$, $p = .049$; Incongruent/Related, $\rho = .38$, $p = .005$). Brain activity in the left temporoparietal region was positively correlated with Attention Impulsivity scores ($\rho = .29$, $p = .033$).

Conclusions: Motor and attentional aspects of trait impulsivity can be differently correlated with behavioral and neurophysiological measures of state impulsivity. In this study, motor impulsivity was correlated with more peripheral measures of inhibition (reaction times) while attentional impulsivity was correlated with activity in temporoparietal regions commonly associated with inhibition of distractive stimuli. Greater levels of motor and attentional impulsivity were associated with slower responses and greater brain activity, respectively.

Disclosure of Interest: None Declared

EPV1066

The effectiveness of an add-on postbiotic to antipsychotic drugs for prevention of metabolic disturbances in patients with first-episode psychosis and schizophrenia spectrum disorder. A double blind clinical trial

J. Chato Noriega^{1*}, E. Giné Servén², A. Ballesteros², M. Araña³, M. Barajas³, D. Yavorov⁴, I. Iturria⁴, J. Ayo⁴, J. García⁵, G. Núñez⁵, M. J. Cuesta², E. Rosado¹, A. M. Sánchez Torres³, G. Gil⁶, X. Ansorena⁶ and I. J. Encio³

¹Instituto de Investigación Sanitaria de Navarra (IdiSNA);

²Department of Psychiatry, Hospital Universitario de Navarra;

³Universidad Pública de Navarra; ⁴Genbioma Aplicaciones SL;

⁵Intelligent System Vitale SL and ⁶Instituto de Investigación Sanitaria de Navarra (IdiSNA), Pamplona, Spain

*Corresponding author.

doi: 10.1192/j.eurpsy.2025.1680

Introduction: Atypical antipsychotics (APs) are the drugs of choice for the treatment of the acute episodes and for relapse prevention in schizophrenia (SZ) and psychosis. Nevertheless, these drugs have side effects and particularly increase the risk to develop metabolic syndrome. Moreover, it has been reported that first-episode psychosis (FEP) patients have significant trends to insulin resistance, a higher body mass index and a higher rate of obesity, compared to the healthy subjects. Changes in gut microbiome have been linked to increased systemic inflammation, which could be associated with metabolic disturbances and the development of SZ. In this context, some previous studies have explored the efficacy of probiotic supplementation in SZ, showing benefits in gut regulation and in improving the metabolic effects of APs.