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Abstract

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JS0001

PROPSY: a new strategy to implement precision psychiatry in France

P. M. Llorca on behalf of M Leboyer, R Jardri and ProPSY working group

CHU, Clermont-Ferrand, France

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Abstract: Over a 5-year program-project, focusing on 4 of the most disabling disorders (i.e. Bipolar Disorder, Major Depressive Disorders, Schizophrenia, and Autism Spectrum Disorders), PROPSY's ambition is to bring solutions for precision medicine in psychiatry. This ambition requires overcoming multiple challenges: (i) to discover prognostic and stratification biomarkers, (ii) to better understand underlying causes and mechanisms, (iii) to develop targeted therapeutic strategies (iii) to reduce stigma and false representation, (iv) to reduce the direct and indirect economic costs. To tackle these challenges, PROPSY is an inclusive program project composed of 5 operational work packages. PROPSY will also implement this knowledge into clinical practice, in a truly learning healthcare system, and increase awareness with Patients' Associations to reach out to civil society. This research effort in precision psychiatry aims to strengthen the coordination of the French workforce along with international collaborations in connection with users and policymakers

Disclosure of Interest: None Declared

JS0002

Advances in Staging of schizophrenia. Development of an empirical staging model for schizophrenia.

P. Garcia-Portilla[1,2,3]

[1]Psychiatry, Universidad de Oviedo; [2]ISPA and [3]CIBERSAM, Oviedo, Spain

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Abstract: After a short review of the state of the art of clinical staging in schizophrenia, I will present a recently developed empirical staging model.
Methods: Two hundred twelve stable outpatients with schizophrenia from Oviedo (Spain) were assessed with: an ad hoc questionnaire (demographic, clinical information); psychopathology: PANSS, CDS, OSQ, CGI-S; functioning: PSP; cognition: MATRICS; lab tests: C-Reactive Protein, IL-1RA, IL-6, Platelet/Lymphocyte (PLR), Neutrophil/Lymphocyte (NLR), and Monocyte/Lymphocyte (MLR) ratios.
An ad hoc genetic algorithm (GA) was developed to select those variables showing the best performance for patients' CGI classification. The objective function of the GA maximizes the individual's correct classification of a support vector machines (SVM) model that employs as input variables those given by the GA. Models' performance was assessed with the help of 3-fold cross-validation, and this process was repeated 10,000 times for each one of the models evaluated. Once developed, we used the ANOVA test (Duncan's post-hoc) for all the variables included in the model to demonstrate its construct validity.
Results: Our model included the following variables: positive, negative, depressive, and general psychopathological symptoms, processing speed, visual learning, social cognition, and real-world functioning. Its classification accuracy is 64.54% (SD=4.83%) with a specificity and sensitivity of 0.85 and 0.63. The external validity of the new model is being tested using a French sample from the FACE-SZ (FondaMental Advanced Centers of Expertise-Schizophrenia) cohort.
Conclusions: We developed an SVM model including psychopathological, cognitive, and functional variables.

Our model demonstrated good construct validity since all the variables included behaved as expected. That is, they score significantly worse as the patients' severity increases. Besides, it showed good accuracy, specificity, and sensitivity classification properties. Using staging models in daily clinical practice will help clinicians to better.

Disclosure of Interest: None Declared

JS0003

Precision in bipolar disorders

I. Grande

Hospital Clínic, Barcelona, Spain
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Abstract: In many fields of heath, precision medicine has been integrated in clinical practise, for instance in oncology. In the case of psychiatry, and in particular bipolar disorder, we are in a prior step for the moment. Different proposal of stratification will be described during the talk for instance the classification of staging. Moreover some proposal of precision psychiatry in bipolar disorder will be put forward.

Disclosure of Interest: None Declared

JS0004

Ghrelin at the interface of hunger, reward and obesity

S. L. Dickson on behalf of Iris Stoltenborg, Reneé Poelman, Erik Schéle, Karlijn Kooij and Roger AH Adan

Institute of Neuroscience and Physiology, The Sahlgrenska Academy at the University of Gothenburg, Gothenburg, Sweden
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Abstract: Ghrelin, a stomach-derived hunger and appetite signal, drives behaviors that ensure we seek out and consume foods, not only in situations of energy deficit but also when anticipating palatable foods. Key target pathways for ghrelin include the orexigenic agouti-related peptide (AgRP) neurones in the hypothalamic arcuate nucleus (Arc), that appear to confer the unpleasant feelings of hunger. They also include dopamine neurones in the ventral tegmental area, where ghrelin heightens motivation for food rewards. Recently, we have employed a variety of neural circuit mapping techniques in rodents to help clarify the function of populations of ghrelin-responsive targets. We found that 1) chemogenetic activation of ghrelin-responsive cells in the Arc is sufficient to drive a feeding response and to induce food-motivated behaviour and 2) that dopamine neurones in the VTA are activated when mice are exposed to cues that predict a food reward than to its retrieval, as revealed by fiber photometry recordings from these cells. Further studies aim to determine the role of ghrelin-responsive cells in the parabrachial nucleus of the brainstem. Overall, the brain ghrelin signalling system is well positioned to integrate the response to hunger, enhanced by both intrinsic and external cues and in ways that are relevant to curb over-eating in obesity.

Disclosure of Interest: None Declared

JS0005

Microbiome-gut-brain axis in Nutritional Psychiatry

H. Schellekens[1,2]

[1]Department of Anatomy & Neuroscience, University College Cork and [2]APC Microbiome Ireland, Cork, Ireland
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Abstract: The last decade has seen an enormous expansion on our knowledge of the human gut microbiome and its importance for human physiology. The gastrointestinal inhabitants have taken centre stage as regulators of the bidirectional gut to brain communication. The gut microbiota is not only critical for metabolism, glucose homeostasis and body composition, but increasing evidence is demonstrating the significant effects of the gut microbiota on mood and mental wellbeing and its role in the development of affective disorders, such as anxiety and depression, and other neuropsychiatric conditions. Studies in the field of nutritional neuroscience and nutritional psychiatry are now increasingly including the gut microbiota as a key factor mediating the impact of diet on central nervous system function. Accumulating evidence from cell-based in vitro studies, animal models and preclinical intervention studies are linking the gut microbiota to the effects of diet on brain function, but the precise mechanism are still not fully understood and studies have had limited translation to human intervention studies. Overall, the increase in our understanding of interconnectedness of the gastrointestinal microbiota of human health and disease, has led to a strong focus on the development of microbiota-targeted strategies to influence all host physiological responses, including those that can modulate central nervous system function. In this talk, I will provide an overview of the most recent advances in the nutritional psychiatry–microbiome field, highlighting significant opportunities for future research.

Disclosure of Interest: None Declared

JS0006

Striatal ups or downs? Neural correlates of monetary reward anticipation, cue reactivity and their interaction in gambling disorder and alcohol use disorder

A. Goudriaan

Psychiatry, Amsterdam University Medical Centers, Amsterdam, Netherlands
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Abstract: Striatal dysfunction is a key characteristic of addictive disorders, but neuroimaging studies have reported conflicting