European Psychiatry

Joint Symposium

www.cambridge.org/epa

Abstract

Cite this article: (2023). Joint Symposium. *European Psychiatry* **66**(S1), S4–S6.

IS0001

PROPSY: a new strategy to implement precision psychiatry in 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

IS0002

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

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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.

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