W75. The multimodal Munich Clinical Deep Phenotyping (CDP) study: towards a better understanding of the heterogeneity and neuobiology of severe mental illness [Abstract]

Sergi Papiol, Andrea Schmitt, Peter Falkai, Elias Wagner, Daniel Keeser, Florian Raabe

Angaben zur Veröffentlichung / Publication details:

Papiol, Sergi, Andrea Schmitt, Peter Falkai, Elias Wagner, Daniel Keeser, and Florian Raabe. 2024. "W75. The multimodal Munich Clinical Deep Phenotyping (CDP) study: towards a better understanding of the heterogeneity and neuobiology of severe mental illness [Abstract]." *European Neuropsychopharmacology* 87 (Supplement 1): 142. https://doi.org/10.1016/j.euroneuro.2024.08.284.

W75. THE MULTIMODAL MUNICH CLINICAL DEEP PHENOTYPING (CDP) STUDY: TOWARDS A BETTER UNDERSTANDING OF THE HETEROGENEITY AND NEUROBIOLOGY OF SEVERE MENTAL ILLNESS

Sergi Papiol[1], CDP Working Group[2], Andrea Schmitt[3], Peter Falkai[3], Elias Wagner[4], Daniel Keeser[2], Florian Raabe[5]

[1] *Max Planck Institute of Psychiatry;* [2] *University Hospital, LMU Munich;* [3] *Ludwig Maximilians University;* [4] *University of Augsburg;* [5] *Max Planck Institute of Psychiatry*

Background: Despite past and ongoing efforts to gain insights into the neurobiology of several mental illness (SMI), the etiopathology and pathophysiology of these disorders are still poorly understood. As a consequence, SMIs represent a high global disease burden because of their early onset in young adults and the prevalence of residual symptoms even when fulfilling remission criteria. In addition, little is known about the biological determinants of treatment response, characterized by the high interindividual differences in these disorders, with a remarkable fraction of patients developing treatment resistance. The multimodal Clinical Deep Phenotyping (CDP) study at the Department of Psychiatry (LMU Munich) aims to tackle some of these unmet clinical needs by setting the groundwork for a deeper understanding of the underlying neurobiology of severe mental disorders [Krčmář et al., 2023].
Methods: The overarching framework of this study involves the implementation of the RDoC approach in a broad naturalistic and transdiagnostic approach in a German cohort of patients with schizophrenia spectrum disorders (SSD), bipolar disorder (BD), major depressive disorder (MDD) and healthy controls (HC). The Clinical Deep Phenotyping (CDP) study is using a multimodal approach to reveal the neurobiological underpinnings of clinically relevant schizophrenia subgroups by performing a broad transdiagnostic clinical characterization with standardized clinical and neurocognitive assessments, state-of-the-art multimodal neuroimaging, electroencephalography, transcranial magnetic stimulation, retinal anatomy and electrophysiology, and multiomics-based analyzes of blood and cerebrospinal fluid. Moreover, to bridge the translational gap in biological psychiatry the study includes in vitro investigations on human-induced pluripotent stem cells (iPSCs).
Results: From the start of the study on October 1, 2020, until the end of the initiation phase on October 31, 2022, approximately 400 participants have been enrolled in the CDP study. The study is currently in a very active phase of data acquisition, quality control, and harmonization. Genetic data is available for all subjects enrolled in the study and polygenic risk scores are already available for all of them. Likewise, iPSC cells are available for a remarkable subset of participants. Finally, first results based on part of this sample have already been published using the retinal anatomy and electrophysiology and genetic data [Boudriot et al., 2024].
Discussion: The CDP study might support the scientific endeavour to identify neurobiology-informed SMI subgroups of patients who could benefit from personalized and tailored treatment in the future. While cross-sectional in its original design, the CDP working group aims to follow up the enrolled participants, adding a longitudinal perspective to this study.

Disclosure: Nothing to disclose.

doi: 10.1016/j.euroneuro.2024.08.284