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Introduction: The main finding of a large-scale collaborative study (Rees et al. Nat Neurosci 2020;23(2) 179-184), which focused on *de novo* mutations in schizophrenia, was the discovery of an enrichment of these mutations in the *SLC6A1* gene. This gene encodes the gamma-aminobutyric acid (GABA) transporter GAT1, thereby encouraging further research into novel schizophrenia targets within the GABA pathway. However, the gene was not highlighted in recent schizophrenia genetic studies, while typically pathogenic *SLC6A1* mutations result in epilepsy, motor dysfunction, autistic spectrum disorder (ASD) and developmental delay. The absence of genetic replication for *SLC6A1*'s involvement in schizophrenia and the differing clinical spectrum for *SLC6A1* mutations led us to study in depth one of the only three original probands from the Rees et al. 2020 study.
Objectives: In our comprehensive case study, we delved deep into the relationship between the SLC6A1 mutation and schizophrenia.
Methods: Our subject, a patient who first presented with acute mania symptoms at age 15 and was later diagnosed with schizophrenia, carried the SLC6A1 Arg211Cys mutation. Over a detailed 25-year follow-up, we conducted an array of assessments and tests, including cognitive testing, personality assessments, EEG, and 1H-MRS.
Results: Notably, we discovered abnormal GABA levels, potentially indicating a dysfunction in GABA reuptake, adding a new layer of complexity to our understanding. Further analysis revealed a significant correlation between the patient's clinical picture and a polygenic background, rather than the SLC6A1 mutation. Despite having a high polygenic risk score for bipolar disorder, the dominant features of his condition were more representative of schizophrenia. Interestingly, neither the patient nor his father, who also showed a higher BP PRS, had a diagnosis of bipolar disorder. The pathogenic significance of the mutation warrants investigation in cells of neuronal origin. We generated induced pluripotent stem cells (iPSC) from the patient and his parents. This approach provides us with a platform for future investigations into the pathogenic significance of the mutation in neuronal cells. The Human Pluripotent Stem Cell Registry accession numbers of those cells are MHRCCGi001-A (patient), MHRCCGi005-A (mother) and MHRCCGi004-A (father).
Conclusions: In the presented case the clinical picture is rather explained by the polygenic background than by the SLC6A1 Arg211Cys mutation. The study is supported by Russian Science Foundation, grant 21-15-00124 (https://rscf.ru/project/21-15-00124)

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EPP0274

Short-chain fatty acids in schizophrenia: are they affected by a depressive state?

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Introduction: Short-chain fatty acids (SCFA) are bacterial metabolites that, within microbiome-gut-brain axis, make a promising research line on etiopathology of mental diseases like schizophrenia (SZ) and major depression disorder. Besides, depressive symptoms are frequent clinical features of SZ.
Objectives:
- Describe fecal SCFA concentrations in SZ patients.
- Analyze differences in SCFA depending on:
- Depression.
- Clinical severity, antipsychotics and antidepressants, comorbidities (pro-inflammatory state/obesity/metabolic syndrome [MetS]), lifestyle.

Methods: Cross-sectional study of 67 outpatients [mean age=43.52 ±12.42, range=22-67; males=40 (59.7%)] with diagnosis (DSM-5) of SZ recruited from their mental health clinics in Oviedo (Spain).
- Assessment:
- Fecal SCFA (gas chromatography;µg/mL).
- Plasmatic C-reactive protein (CPR;mg/dL).
- PANSS, Calgary Depression (CDS), International Physical Activity (IPAQ), Mediterranean Diet Adherence (MEDAS).
- Toxic habits (alcohol use/smoking/cannabis).
- Chlorpromazine equivalent doses (CPZ-ED), use of antidepressants.
- MetS (ATP-III), body mass index (BMI; kg/cm2).
- Statistics: Spearman correlation, U Mann-Whitney, ANCOVA.

Results: 14 patients showed clinical depression (CDS≥5). There were no differences in age or sex between groups. 36 patients (53.7%) showed systemic low-grade inflammation (CPR≥0.3mg/dL) and 32 (30.8%) MetS.Table 1 shows fecal SCFA levels by depressive state. Means (SD) are ahown.

Table 1

	CDS≤4	CDS≥5	Total	U Mann-Whitney (p-value)
Acetate	21.449 (12.823)	12.911 (7.189)	19.665 (12.328)	221.000 (0.021)
Propanoate	9.170 (6.819)	6.848 (6.036)	8.685 (6.687)	268.500 (0.114)
Butyrate	8.529 (6.436)	7.875 (8.232)	8.392 (6.787)	320.000 (0.432)
Total SCFA	39.148 (23.770)	31.415 (24.526)	36.742 (23.549)	250.000 (0.062)

Correlations were found in Age with Butyrate (r=-0.248,p=0.043) and weekly alcohol units with Propanoate (r=0.250,p=0.041) plus trend to significance with Butyrate (r=0.232,p=0.059). It also showed a trend towards statistical relation for CPZ-ED with Propanoate (r=-0.253,p=0.039) and Total SCFA (r=-0.253,p=0.039). We found no correlation in SCFA with MetS, CGI, PANSS-N, BMI, IPAQ, MEDAS and other toxic habits.

ANCOVA was performed to Acetate and Total SCFA using depression state as independent variable and Age and CPZ-ED as covariates. There was a trend towards statistical significance for Acetate (F=3.937,p=0.052,η2=0.059) whereas Total SCFA showed no difference (F=1.350,p=2.250,η2=0.021).

Conclusions: There seems to be lower levels of fecal Acetate in SZ patients with depressive symptoms, considering age and antipsychotic intake. In our sample there was no relation between SFCA and clinical severity, lifestyle, comorbidities or antidepressant use.

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EPP0343

Unlocking insights from actigraphy: examining feature selection and activation detection approaches for enhanced data interpretation

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Introduction: Alterations in motor activity are an extremely important characteristic and one of the leading symptoms of major functional psychiatric disorders. These pattern disturbances can be observed in schizophrenia. Actigraphy is a non-invasive method that can be used to monitor these changes, and recent studies emphasize its significance in the early identification of disorders like schizophrenia.

Objectives: This study uniquely focuses on distinguishing latent liabilities for schizotypy from manifested schizophrenia using specific actigraphy features.

Methods: Actigraphy data were collected using specialized devices from the University of Szeged and Haukeland University Hospital datasets (Berle et al., 2010). At Haukeland University Hospital patients with chronic schizophrenia (N=23) (so-called: manifested group) were collected, separately, at the University of Szeged, healthy university students were recruited and screened for latent tendencies towards shizotypic pathological development. In the latter study, two main groups were formed based on their scores:

a positive schizotypy factor group (so-called: latent group) (N=22) and a control group (N=25), with actigraphy data.

Utilizing the pyActigraphy library (Hammad et al., 2021) and wavelet analysis, features such as activity mean, interdaily stability and sleep movement characteristics were derived. Feature selection employed machine learning algorithms, notably Logistic Regression, Random Forest, ANN, and AHFS aided by Shapley values and Click Forming Feature Selection for insight into the most influential features.

Results: The three models exhibited similar performance with a 60% accuracy threshold. In the latent group, sleep-related movements have a substantial impact, while in the manifested group, in addition to sleep characteristics, features like RA, IV, ADAT, M10, the mean activity level (all of which decreased), and the ratio of zero values also play a significant role. In the latent group, features related to the length of small amplitude movements were dominant, particularly the increased values, along with a decrease in the density of large movements.

Conclusions: Our study indicates that in the latent phase of schizophrenia, actigraphy features related to sleep are most significant, but as the disease progresses, both sleep and daytime activity patterns are crucial. Sleep disturbances may signal early susceptibility, with nighttime movements offering clearer insights. These variations might be influenced by medication effects in the manifested group, reflecting the broader challenges in schizophrenia research where the drug-free study of patients remains elusive. Further studies should explore these features in the Clinical High Risk and prodromal groups to refine our understanding of the development of the disorder.

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EPP0724

Manic episode with psychotic symptoms in a patient with Pseudologia Fantastica of years of evolution. A case report

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Introduction: Pseudologia Fantastica (PF) also called "mythomania" is a disorder centred on the tendency of the sufferer to distort reality through constant lies. These patients find it difficult to moderate their sense of self and their self-esteem. Therefore, they display significant grandiosity, which seems to defend them from intense psychological disturbance, pretending to counteract deep feelings of unworthiness, emptiness and alienation.

Notable characteristics include: normal or above average IQ, absence of formal thought disorder, poor sense of identity, poor sexual adjustment, low frustration tolerance, strong dependency needs and narcissism. The phenomenon of "imposture" (the person's claim of achievement or having connections to famous or influential people) is frequent. The patient's history often shows that one or both parents were experienced as rejecting figures. They