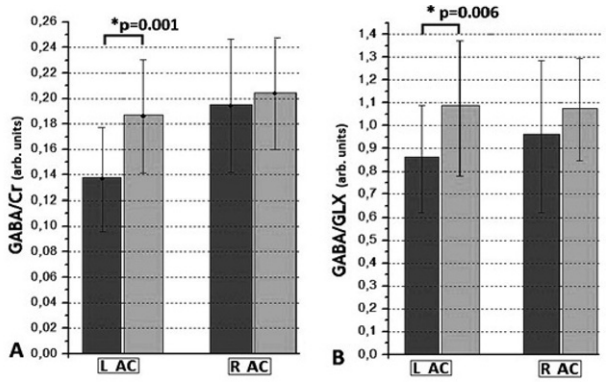

Fig. 2 Reduced GABA (A) and GABA/GLX (B) in the left ACC.

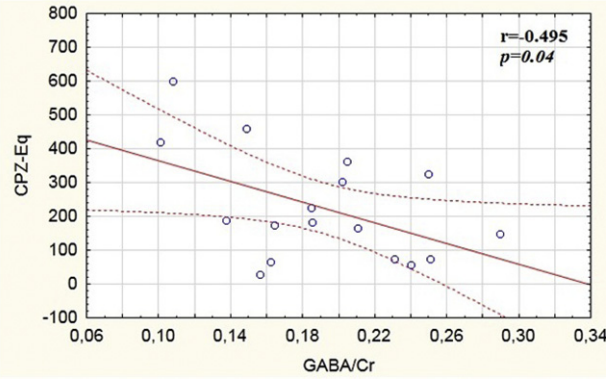

Fig. 3 Association between GABA/Cr and treatment.

Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2017.02.319

EW0706

Connectivity differences between bipolar disorder, unipolar depression and schizophrenia

S. Metin[1,*], B. Metin[2], C. Tas[2], N. Tarhan[2]
[1] *Uskudar university, psychiatry, Istanbul, Turkey*
[2] *Uskudar university, psychology, Istanbul, Turkey*
* *Corresponding author.*

Introduction Diffusion tensor imaging (DTI) is used frequently to explore white matter tract morphology and connectivity in psychiatric disorders. Connectivity alterations were previously reported for bipolar disorder, unipolar depression and schizophrenia. However, there is limited data on how these disorders differ from one another in terms of connectivity.
Aims In this study, we aimed to explore connectivity differences between these disorders.
Methods We analyzed DTI data of 37 patients with schizophrenia, 41 patients with bipolar disorder and 46 patients with unipolar depression. Group analyses were performed for schizophrenia versus bipolar and bipolar versus unipolar contrasts with using age as a covariate.
Results Threshold corrected results showed that connectivity at internal capsule and corpus callosum were most distinctive between groups. For corpus callosum (splenium), unipolar group showed the highest connectivity and schizophrenia group showed the lowest connectivity (Fig. 1). For internal capsule, schizophrenia group had the highest connectivity and unipolar group had the lowest connectivity (Fig. 2). Bipolar group had intermediate values for both tracts.
Conclusions These results indicate that connectivity analysis may be helpful for differentiating psychiatric disorders.

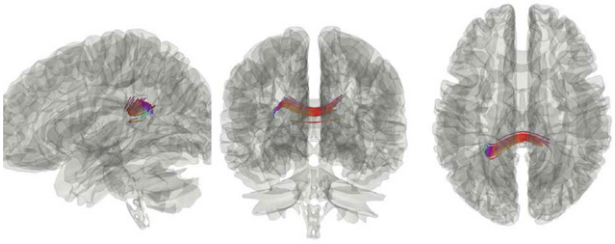

Fig. 1

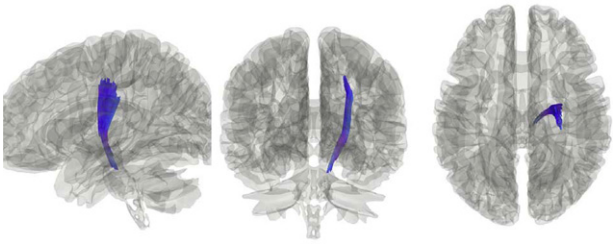

Fig. 2

Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2017.02.320

EW0707

Time-frequency analysis of EEG recorded during unconscious expectation of angry vs. neutral faces in patients with major depression and healthy controls

E. Mnatsakanian[1], M. Sharaev[2], V. Krjukov[3], O. Antipova[3], V. Krasnov[3,*]
[1] *Moscow research institute of psychiatry, neurophysiology, Moscow, Russia*
[2] *National research centre "Kurchatov institute", neuroimaging, Moscow, Russia*
[3] *Moscow research institute of psychiatry, affective disorders, Moscow, Russia*
* *Corresponding author.*

Introduction The knowledge on brain mechanisms of psychopathology can be very useful for the diagnosis and treatment of patients.
Objectives Patients with major depressive disorder (MDD) show attention bias to the negative emotional stimuli. Automatic (unconscious) emotional processing in such patients may become a prospective biomarker for depression.
Aims We aimed at studying the EEG-correlates of unconscious expectation of angry human faces in MDD patients compared to healthy controls.
Methods 128-channel EEG was recorded in MDD (23 females and 7 males) and in healthy volunteers (22 females and 8 males) while they categorized pictures as humans or animals. Half of the pictures were neutral and half were showing the faces of angry humans or animals. The pictures were preceded by cues (one for each category), which meaning was not explained to the participants. We

performed the wavelet analysis on EEG recorded during the face expectation period: 1000–2000 ms from the cue onset.
Results We found the emotional modulation (EM) in EEG rhythms during the expectation of angry vs. neutral faces in both groups. Statistical comparison of the spectral power using 2×2 factorial design showed that the EM differences ($P < 0.05$) between the groups were in the left parietal locations in 9 Hz and in 16–18 Hz, in the right parietal locations in 27–28 Hz, and in the right frontal area in 30–31 Hz.
Conclusions The unconscious expectation of angry vs. neutral faces resulted in EM differences between the MDD and healthy controls in the right frontal and bilateral parietal areas mostly in beta and gamma ranges.
Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2017.02.321

EW0708

Brain pathway differences between Parkinson's disease patients with and without depressive symptoms

S. Mohammadi Jooyandeh [1,*], T.C. Baghai [1], M.H. Aarabi [2], M. Dolatshahi [3], B. Langguth [1]
[1] *University hospital Regensburg, psychiatry and psychotherapy, Regensburg, Germany*
[2] *Basir eye health research center, neuroscience, Tehran, Iran*
[3] *Tehran university of medical sciences, student's scientific research center, Tehran, Iran*
[*] *Corresponding author.*

Introduction Depression occurs frequently in patients suffering from Parkinson's disease (PD). However, the neural basis of depression in PD remains unclear. Diffusion magnetic resonance imaging (DMRI) connectometry is based on the spin distribution function (SDF), which quantifies the density of diffusing water.
Aim The aim of this study was to assess the microstructural changes in the brain connectivity of PD patients with and without depressive symptoms.
Methods DMRI was used to assess microstructural abnormalities in the brains of 16 PD patients with depressive symptoms compared to 11 PD patients without depressive symptoms. Data used in the preparation of this paper were obtained from the Parkinson's progression markers initiative (PPMI) database (http://www.ppmi-info.org/data/). This dataset was acquired on a 3-Tesla scanner (Siemens), producing 64 DWI at $b = 1000$ s/mm^2 and one b0 image. Diffusion MRI data were corrected for subject motion, eddy current distortions, and susceptibility artefacts due to magnetic field inhomogeneity. DMRI connectometry was conducted in a total of 27 patients using percentage measurement.
Results PD Patients with depressive symptoms showed decreased anisotropy (FDR < 0.05) in the fornix bilaterally, left inferior longitudinal fasciculus (ILF) and corticospinal tract bilaterally compared to PD patients without depressive symptoms.
Conclusions Lesser WM integrity of the left ILF fibers, which connect visual face recognition areas to the amygdala and hippocampus, seems to be associated with depressive symptoms in PD patients. Our study supports the hypothesis that neurodegenerative processes in projections from the somatosensory, cingulate, and insular cortices may be related to depression in PD.
Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2017.02.322

EW0709

Meta-analysis of aberrant brain activity in psychopathy

T. Poeppl [1,*], M. Donges [1], R. Rupprecht [1], P. Fox [2], A. Laird [3], D. Bzdok [4], B. Langguth [1], S. Eickhoff [5]
[1] *University of Regensburg, department of psychiatry and psychotherapy, Regensburg, Germany*
[2] *University of Texas health science center, research imaging institute, San Antonio, USA*
[3] *Florida international university, department of physics, Miami, USA*
[4] *RWTH Aachen university, department of psychiatry and psychotherapy, Aachen, Germany*
[5] *Heinrich Heine university, department of clinical neuroscience and medical psychology, Duesseldorf, Germany*
[*] *Corresponding author.*

Introduction Psychopathy is characterized by superficial charm, untruthfulness, lack of remorse, antisocial behavior, egocentricity as well as poverty in major affective reactions. This clinical profile has been empirically conceptualized and validated. Recent brain imaging studies suggest abnormal brain activity underlying psychopathic behavior. However, no reliable pattern of altered neural activity has been disclosed so far.
Objective To identify consistent changes of brain activity in psychopaths and to investigate whether these could explain known psychopathology.
Methods First, we used activation likelihood estimation to meta-analyze brain activation changes in psychopaths across 28 functional magnetic resonance imaging studies reporting 753 foci from 155 analyses ($P < 0.05$, corrected). Second, we functionally characterized the ensuing regions employing meta-data of a large-scale neuroimaging database ($P < 0.05$, corrected).
Results Psychopathy was consistently associated with decreased brain activity in the right amygdala, the dorsomedial prefrontal cortex (DMPFC), and bilaterally in the lateral prefrontal cortex (LPFC). Consistently increased activity was observed bilaterally in the fronto-insular cortex (FIC) (Fig. 1). Moreover, we found that the physiological functional role of the candidate regions related to social cognition (DMFPC), cognitive speech and semantic processing (left FIC/LPFC), emotional and cognitive reward processing (right amygdala/FIC) as well as somesthesis and executive functions (RLPFC).
Conclusion Psychopathy is characterized by abnormal brain activity of bilateral prefrontal cortices and the right amygdala, which mediate psychological functions known to be impaired in psychopaths. Hence, aberrant neural activity can account for pertinent psychopathology in psychopathy.

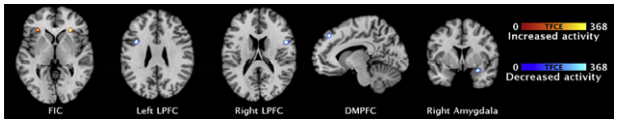

Fig. 1

Disclosure of interest The authors have not supplied their declaration of competing interest.

http://dx.doi.org/10.1016/j.eurpsy.2017.02.323

EW0710

Cannabis use decreases prefrontal glutamate levels in early psychosis

S. Rigucci [1,2,*], L. Xin [3], P. Klauser [1], P.S. Baumann [1], L. Alameda [1], M. Cleusix [4], J. Raoul [4], C. Ferrari [1], M. Pompili [2], R. Gruetter [5], K. Do Cuenod [4], P. Conus [1]
[1] *Centre hospitalier universitaire vaudois, CHUV, department of general psychiatry, Lausanne, Switzerland*