

UHPLC-MS/MS. ANCOVA was performed adjusting for sampling, sociodemographic, health and lifestyle variables.

**Results** F2-isoprostanes did not differ between controls and patients, or by antidepressant use. Patients (current or remitted) using antidepressants had lower 8-OHdG (adjusted mean 38.3 pmol/L) compared to patients (current or remitted) without antidepressants (44.7 pmol/L) and controls (44.9 pmol/L,  $P < 0.001$ ; Cohen's  $d$  0.26). Findings for 8-OHdG were similar over all disorders and all antidepressant types (SSRIs, TCAs, SNRIs;  $P < 0.001$ ).

**Conclusion** Contrary to previous findings this large-scale study did not find increased oxidative stress measured by F2-isoprostanes or 8-OHdG in MDD or anxiety disorders. 8-OHdG levels were lower in antidepressant users, which suggests antidepressants may have antioxidant properties.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.535>

#### EW418

### Antioxidant uric acid is lower in current major depression and anxiety disorders

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**Introduction** It has been hypothesized that lowered antioxidant capacity, which leads to increased oxidative stress, may be involved in the pathophysiology of major depressive disorder (MDD) and anxiety disorders and might be altered by antidepressant treatment.

**Objectives** This study investigated the association of plasma uric acid, the greatest contributor to blood antioxidant capacity, with MDD, generalized anxiety disorder, social phobia, panic disorder, agoraphobia and antidepressants in a large cohort.

**Methods** Data was derived from the Netherlands Study of Depression and Anxiety including patients with current ( $n = 1648$ ) or remitted ( $n = 609$ ) MDD and/or anxiety disorder(s) (of which  $n = 710$  antidepressant users) and 618 controls. Diagnoses were established with the Composite Interview Diagnostic Instrument. Symptom severity was ascertained in all participants with the Inventory of Depressive Symptoms and the Beck Anxiety Inventory. ANCOVA and regression analyses were adjusted for sociodemographic, health and lifestyle variables.

**Results** Plasma uric acid was lower in those with current MDD and/or anxiety disorder(s) (adjusted mean 270  $\mu\text{mol/L}$ ) compared to those with remitted disorders (280  $\mu\text{mol/L}$ ,  $P < 0.001$ ) or to controls (281  $\mu\text{mol/L}$ ,  $P < 0.001$ ; Cohen's  $d$  0.14). Within patients antidepressants were not associated with uric acid levels. Increasing symptom severity was associated with lower uric acid levels for both depression ( $\beta = -0.05$ ,  $P = 0.001$ ) and anxiety symptoms ( $\beta = -0.05$ ,  $P = 0.004$ ).

**Conclusion** This large scale study finds that the antioxidant uric acid is lower in current, but not remitted, MDD or anxiety disorders and in persons with higher symptom severity, suggesting disturbances in redox homeostasis play a role in the pathophysiology of depression and anxiety disorders.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.536>

#### EW419

### Interleukin-receptor antagonist (IL1-RA) with respect to schizophrenia psychopathology

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**Introduction** The influence of the immune deregulation on the risk and psychopathology of schizophrenia is increasingly recognized in the literature.

**Aim** To assess the association between serum IL-1RA on schizophrenia psychopathology.

**Methods** We recruited 88 schizophrenia patients (38 males and 49 females, mean age  $38.12 \pm 12.67$  years) and 88 healthy adult control subjects (68 males, 20 females, mean age  $40.63 \pm 7.99$  years). Lifetime psychopathology was evaluated using Operational Criteria for Psychotic Illness (OPCRIT) checklist, while current psychopathology was assessed using Positive and Negative Syndrome Scale (PANSS). Serum samples were stored in aliquots at  $-80^\circ\text{C}$ . Serum levels of IL-1RA were measured using Immunoassay (ELISA).

**Results** There were statistically significant differences between schizophrenia patients and healthy controls (median  $\pm$  interquartile range:  $350.81 \pm 227.04$  and  $888.74 \pm 762.63$ , respectively [pg/ml]) ( $U$  Mann-Whitney test,  $Z = -7.99$ ,  $P < 0.0001$ ). There were no differences in serum IL-1RA levels between male and female among patients with schizophrenia ( $U$  Mann-Whitney test,  $Z = -0.22$ ,  $P = 0.82$ ) nor among healthy control subjects ( $U$  Mann-Whitney test,  $Z = -0.17$ ,  $P = 0.86$ ). Among schizophrenia patients, there was a trend-level association between IL-1RA serum level with negative symptoms (Spearman correlation coefficient,  $r = -0.23$ ,  $P = 0.056$ ), positive symptoms (Spearman correlation coefficient  $r = -0.22$ ,  $P = 0.066$ ), and on a statistically significant level with general symptoms (Spearman correlation coefficient  $r = -0.28$ ,  $P = 0.018$ ).

**Conclusion** Serum IL-1RA level is higher in schizophrenia patients in comparison to healthy controls and it is associated with schizophrenia psychopathology.

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

<http://dx.doi.org/10.1016/j.eurpsy.2016.01.537>

#### EW423

### Immunomodulatory role of paliperidone in the poly(I:C) model of schizophrenia

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**Introduction** Alterations on the innate inflammatory response may underlie the pathophysiology of psychiatric diseases, but the mechanisms implicated remain elusive. Current antipsychotics