

who do not make the transition to psychosis. Verbal fluency may contribute to an improved prediction of psychosis in UHR patients. Follow up results will also be presented.

### S55.04

The perception of expressed emotion in young people at high-risk of psychosis

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**Objectives:** The European Prediction of Psychosis Study (EPOS) involved a large (n=245) sample of young individuals at high-risk of developing psychosis. Participants appraisals of criticism and emotional over-involvement were described employing the Level of Expressed Emotion (LEE) measure. This presentation explores results and implications over an 18 month follow-up period.

**Methods:** Across six European centres, n=245 patients aged 16 – 35 years and ascertained to be at high-risk of developing psychosis were assessed over a period of eighteen months. Risk of psychosis was defined by occurrence of basic symptoms, attenuated psychotic symptoms, brief, limited or intermittent psychotic symptoms or familial risk plus reduced functioning. Appraisals of familial expressed emotion from participants towards key family members were examined for relationships to risk of transition to psychosis, psychotic symptomatology and demographical data.

**Results:** Individuals at high-risk of psychosis were included and compared on the five sub-scales of LEE. Levels of Criticism, Irritability, Intrusiveness and Lack of emotional support were examined with significant correlations found between patient-perceived intrusive over-involvement and depression as well as between sub-scales of LEE and positive symptoms of psychosis. Transition to psychosis was not predicted by LEE in participants.

**Conclusions:** Perceived LEE of significant others by individuals at high-risk of developing psychosis may have a role in the maintenance of both affective and positive psychotic symptoms prior to the onset of full psychosis. Further explorations of the impact of EE appraisal on developing psychotic symptoms may inform potential targets for therapeutic intervention in both at-risk individuals and family members.

## Symposium: Neuropsychobiology of inhibitory deficits in schizophrenia: An update

### S57.01

Antisaccade deficits in subjects either genetically or clinically at risk for schizophrenia

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**Background and Aims:** Disturbances of the oculomotor system are promising endophenotypes for schizophrenia. In two separate studies, we examined antisaccade task performance, a measure of inhibitory control, in first degree relatives of schizophrenic patients (genetic risk without manifest disorder) and in clinical high risk subjects with symptoms suggestive of a prodromal phase of schizophrenia.

**Methods:** In the first study, 41 parents of schizophrenia patients and 22 controls were tested with with a prosaccade task and an anti-saccade task. Parents were grouped into more likely, less likely, and indeterminate risk carriers. The second study involved 160 subjects clinically at risk for schizophrenia, 32 first episode schizophrenic patients, and 76 healthy controls.

**Results:** In study 1 we found an increase of antisaccade latencies and error rates in parents of schizophrenics which varied with inferred genetic load, more likely gene carriers performing worst. In study 2, antisaccade performance varied with symptom load: subjects at risk with basic symptoms only were unimpaired, while at-risk subjects who had experienced brief psychotic episodes (BLIPS) showed deficits similar to first episode patients.

**Conclusions:** Reduced inhibitory control of oculomotor performance is associated with genetic loading for schizophrenia, and also with symptoms placing subjects at imminent risk of psychosis.

### S57.02

Imaging and pharmacological studies of oculomotor inhibition

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The antisaccade task is a model of the conflict between an unwanted reflexive response (which must be inhibited) and an appropriate volitional response (which must be generated). In this talk I will present a study of the neural correlates of these cognitive components separately using a delayed saccade paradigm to dissociate saccade inhibition from generation. Event-related functional magnetic resonance imaging (fMRI) was carried out in healthy human volunteers. It was found that the right supramarginal gyrus showed significantly greater activation during response inhibition compared to response generation, suggesting a role in saccade inhibition or stimulus detection. The right lateral frontal eye field and bilateral intraparietal sulcus showed evidence of selective involvement in antisaccade generation. Ventrolateral and dorsolateral prefrontal cortices showed comparable levels of activation in both phases of the task. These areas likely fulfil a more general supervisory role in the volitional control of eye movements, such as stimulus appraisal, task set, and decision making. The findings will be discussed in relation to data suggesting that antisaccade deficits constitute an endophenotype for schizophrenia and in relation to pharmacological studies of brain function during antisaccade eye movements.

### S57.03

Prepulse inhibition as a marker of prefrontal function: Studies in healthy individuals

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