in 1999. Now under way in twelve countries in different parts of the world the programme has assembled sufficient knowledge and experience about the ways of dealing with stigma and discrimination because of schizophrenia to be able to offer training about the programme to teams from other countries.

The objectives of the course are: (1) to make participants aware of possible ways of fighting stigma and discrimination because of schizophrenia; (2) to enable them to use the WPA instruction manuals describing the steps necessary to build up a programme in their country; and (3) to establish working relationships between the participants in the course and teams fighting stigma and discrimination because of schizophrenia in the framework of the WPA programme.

The faculty of the course will be composed of representatives of centres that are carrying out anti-stigma programmes in their countries. Participants: (1) psychiatrists and other mental health workers from settings in which preliminary action concerning the development of antistigma programmes has been carried out. Such groups will be given priority for inscription at the course; (2) others engaged or likely to become engaged in teaching or other action related to stigma and discrimination because of mental illness.

# FC11. Schizophrenia II

Chairs: M. Kirsten-Krüger (CH), J. Libiger (CZ)

### FC11.01

PHENOMENOLOGY OF SCHIZOPHRENIA IN DIFFERENT GENDER

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Schizophrenia still poses controversy regarding its different dimensions. The difference of opinion varies across a number of parameters ranging from aetiology to treatment, causes to manifestations and treatment to outcome. When it comes to the issue of gender, schizophrenia also plays a different role. It not only strikes men and women at different ages, but, it follows a different course and displays a significant gender difference in phenomenology. This paper describes the data from a study which has been completed at a local psychiatric facility in the UK looking at different aspects of this illness. The information was collected from a cohort of schizophrenic patients diagnosed as per I.C.D. 10 using BPRS and PANSS. The results support the findings suggesting a different clinical picture with reference to gender. Significant differences were observed among male and female patients in many symptoms. Female patients showed more affective symptoms, somatic concern, anxiety, tension and depressed mood as compared to male patients. The results are discussed with reference to the practical implications of this difference. An attempt is also made to argue whether we are dealing with two distinct types of schizophrenia or there is only one disorder with variations in it presentation and occurrence in different sexes.

#### FC11.02

THE LANGUAGE OF SCHIZOPHRENIA IN XXTH CENTURY: FROM PHENOMENOLOGICAL TO ILLOCUTIONARY APPROACH

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As strange as it may seem, psychiatrists contrary to psychoanalytic have seldom made attempts to analyze the significance of language in mental illness. This is particularly surprising in view of the fact that language is their principal instrument in attempting to assess the condition of patients. Psychiatrists tend to interpret language in a phenomenological manner. But here the following should be noted: when language is looked upon as an instrument/symptom the linguo-philosophic principle is being ignored. Clearly, another approach to the understanding of psychotic speech is needed, one that takes into account the role of language in the generation of psychosis. Our idea that the speech act theory makes it possible to realize it. According to the illocutionary acts theory (J. Austin). a distinction should be made between utterances that constitute statements or descriptions, and utterances that constitute acts of creation. It is assumed here that psychotic discourse should be viewed as an illocutionary act and that language itself is able to create a new psychotic reality. The peculiarities of this approach are the following: a) Psychotic discourse can be defined ignoring true-false dichotomy. b) In the frame of the theory a new vision of the thought - language - reality triad language itself has the power to create a new psychotic reality.

#### FC11.03

FOUR-YEAR STABILITY OF POSITIVE AND NEGATIVE SCHIZOTYPAL TRAITS IN NORMAL ADOLESCENTS FROM THE GENERAL POPULATION

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Background: Schizotypal traits are considered risk markers for schizophrenia spectrum disorders. One study (Champan et al., 1994) has so far shown their predictive value. However, little is known about their stabilility and even less at an early age such as adolescence. It is important to know of their stability 1) to be able to properly conceptualise them as 'risk markers', and 2) since adolescence is an important stage in which to assess 'trait-like' risk indicators.

Methods: We initiated a biobehavioural high-risk study for schizophrenia spectrum disorders in 1993 with adolescents from the general population. We did an initial screening with the sustained attention measure CPT-IP with 1498 subjects. We then chose 301 subjects, half poor and half normal CPT-IP performers (T1). After 4 years, in 1998, we re-assessed the working sample (T2). We were left with 138 subjects. In T1 we assessed schizotypal personality with 3 of the Chapman scales: Perceptual Aberration, Physical Anhedonia, Social Anhedonia Scale. In T2 we did a multidimensional assessment with the O-LIFE, which also taps positive and negative factors and contains an important number of items from the Chapman scales.

Results: Pearson correlations between T1 and T2 schizotypal traits were significant for the total sample and both groups separately. However, subjects with attentional deficit present more negative traits than control subjects 4 years later. The pattern of associations is the expected one between positive and negative dimensions.

Conclusions: These data point to the reliability of schizotypal traits measurement at 13 and 17 years old. Furthermore, our

findings lend support to Cornblatt et al. (1992) model of sustained attention deficits as a pathway towards the development of social indifference and isolation.

#### FC11.04

A CLUSTER ANALYTIC STUDY OF NORMAL ADOLESCENTS WITH NEURODEVELOPMENTAL, NEUROCOGNITIVE, PERSONALITY AND SOCIAL RISK FACTORS FOR SCHIZOPHRENIA SPECTRUM DISORDERS

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**Background:** Schizophrenia is thought to have a neurodevelopmental origin, which would explain the early signs of abnormality found in pre-schizophrenics. We wanted to see how certain risk factors for schizophrenia including signs of neurodevelopmental disturbance cluster in individuals from the general population.

Methods: Data for this analysis come from a biobehavioural high-risk study of adolescents from the general population initiated in 1993. Two phases have been conducted so far (T1 and T2). We did a hierarchical cluster analysis with 97 subjects (mean age 17.65, SD = 0.77) to identify subgroups on the basis of T2 (1998) markers for schizophrenia spectrum from several domains: neurodevelopmental (dermatoglyphics), neurocognitive (CPT-IP, verbal and spatial memory, WCST), personality (4 schizotypal dimensions), and social behaviour. After constituting the groups we compared them on T1 (1994) variables.

**Results:** Four clusters were determined. From these, Cluster I (n = 29) was characterised by a predominance of boys, more negative schizotypy, poorer verbal memory and attention, and more developmental instability. A MANOVA showed that only 4% of the variance was left unexplained (Wilks Lambda 0.04, p = 0.0001). When compared on T1 variables, this cluster showed to have significantly more negative schizotypy, teacher-rated internalising symptoms, neurological soft signs (trend), and in a 25% parents reported delivery  $OC_s$ . The remaining clusters were also clearly interpretable.

Conclusions: We have found in a sample of 'normal' adolescents a subgroup of subjects in which markers for schizophrenia spectrum phenomenology coaggregate very similarly to what has been found in population cohort studies as the antecedents of the neurodevelopmental type of schizophrenia: negative features, signs of perinatal disturbances, and neurocognitive abnormalities. Whether this subgroup is at heightened risk to show axis I or II symptoms compared to the others will be evaluated soon in a third phase with clinical interviews.

#### FC11.05

HUBIN – HUMAN BRAIN INFORMATICS: A CLINICAL DATABASE PROJECT FOR MULTIDISCIPLINARY RESEARCH IN SCHIZOPHRENIA

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Schizophrenia represents a tragedy for patients and relatives, and a serious problem for society. The HUBIN database project – Human Brain Informatics Center – concerns the establishment of a relational database at the Karolinska Institute on human brain data in schizophrenia and in healthy volunteers. The HUBIN research

program represents an international research collaboration investigating multiple dimensions concerning the etiology and pathophysiology of schizophrenia. The HUBIN database study combines molecular genetic, phenotypic, brain imaging (MR, PET), and environmental high quality data for representative schizophrenia patient populations and healthy control subjects. Major HUBIN studies are conducted on one of the world's largest siblingpair study of schizophrenia and on a large representative sample of patients with schizophrenia and normal comparison subjects. The HUBIN database project is now entering its second phase in which data from more than 2000 clinical and biological variables from more than 3000 patients and a similar number of healthy control subjects are entered into the database. With this approach we will search for new evidence regarding genetic and environmental mechanisms for the etiology and pathophysiology in the group of schizophrenia patients. Data mining procedures are used to search for relations between patients and volunteers, which in turn will be used for the generation of new hypotheses with regard to both etiology and pathophysiology. The database will also be used for a detailed characterization of the variability of a large number of entities of importance for the human brain and its functions in relation to health and psychiatric disorders.

### FC11.06

A UNIFIED HYPOTHESIS OF SCHIZOPHRENIA BASED ON GLUTATHIONE DEFICIT

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We have previously investigated teh concentrations of amino acis, dopamine and serotonin metabilites, N-acetylaspartate and N-acetylaspartylglutamate in teh cerebrospinal fluid (CSF) of drug naive or drug free schizophrenic patients (Table 1) in whom long-term changes secondary to previous antipsychotic treatment could be excluded. Among the 26 compounds analysed, we reported a decrease in γ-glutamylglutamine (γ-Glu-Gln; Do et al., 1995). This γ-glutamyl dipeptide is most probably synthesised from GSH by the enzyme γ-glutamyl-transpeptidase, which transfers the γglutamyl moiety of GSH to an amino acid (Fig1). We therefore determined the GSH (Glutathione) concentration of the same CSF samples.

## Methods:

<u>MRS</u>

- Use of a double quantum coherence filter technique (DQC) based on coherence pathqay filtering with static field gradients in combination with spatial selection of a single volume. The strongly coupled dysteine CH2 compound of GSH (multiplet at 2.9 ppm) was found to be the most suitable target for spectral editing.
- The sequence was implemented on a Philips Gyroscan ACS NT 1.5 Tesla whole body scanner equipped with a transmit/receive birdcage resonator (Philips Medical Systems, Best, The Netherlands).
- 9 male inpatients (age range: 19 to 43.6 years); DSM-III-R: Schizophreniform (n = 3), schizophrenic disorder (n = 6); 3 patients were treated with neuroleptic medication in the past, 4 were drug-naive, 2 drug-free for at least 6 months.

AMDP, PANSS, SANS, SSCL-16, SCL 90 served as psychopathological rating scales.