jects with DSMIII-R schizophrenia and normal premorbid I.Q. (randomly matched from the Lothian Psychiatric Case Register, N = 20), and subjects with mild learning disability alone (N = 16). The Quick I.Q. Test and The Positive and Negative Symptom Scale (PANSS) were administered to all 57 participants. A National Adult Reading Test (NART) was also performed on all schizophrenic control subjects to confirm a premorbid I.Q. within the normal range.

A one way ANOVA with Bonferroni Test for multiple comparisons was performed on symptom clusters (Positive, Negative and General), obtained from the PANSS. Dual diagnosis subjects showed significantly more negative symptoms (at p = 0.05) than either the schizophrenic group or the group of subjects with learning disability alone. Whereas the schizophrenic patients, without premorbid learning disability, showed significantly more positive symptoms than either the dual diagnosis or learning disability groups. Furthermore, regression analysis indicated a significant negative correlation between Quick I.Q. and negative symptomatology in all schizophrenic subjects.

This study confirms that preschizophrenic subjects with a low I.Q. develop a form of psychosis characterised by predominantly negative symptomatology.

THE LONG-TERM COURSE OF CHILDHOOD-ONSET SCHIZOPHRENIA. A SECOND FOLLOWUP OF 44 PATIENTS 27 YEARS AFTER THE FIRST FOLLOWUP AND 42 YEARS AFTER THE INITIAL PSYCHOTIC EPISODE: A FIRST REPORT

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First results of a long-term followup (M = 41.9 years, SD = 8.2 years) of 44 patients (19 males, 25 females) with Childhood-onset Schizophrenia are presented. Age at onset ranged from 7 to 14 years (M = 11.8 y., SD = 2.0 y.). Patients and/or their first-degree relatives were interviewed personally in 1994 with the Present-State-Examination (PSE) and the Disability-Assessment-Schedule (WHO-DAS) — about 27 years after the first followup. Clinical records were analyzed with the Instrument for the retrospective assessment of onset of Schizophrenia (WHO-IRAOS) and with sections of the PSE. The cases were re-diagnosed with DSM-III-R based on longitudinal data obtained between onset and first the first hospital admission. *Main results:* The cumulative prevalence of illness-onset with age is flatter in boys than in girls. An acute (vs. insidious) onset was significantly more frequent after 12 years of age. There was a negative correlation between age of onset and the social disability scores (WHO-DAS). 25% showed complete, 25% partial, and 50% very bad recovery at followup. None of the chronically psychotic patients showed an acute onset. The results are discussed with respect to epidemiology, gender differences, and etiological hypotheses of Childhood Schizophrenia.

DERMATOGLYPHICS OF SCHIZOPHRENIA

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Objectives: Dermatoglyphics elicit the genetic aetiology of many diseases. The genetically determined dermatoglyphic features include the total finger ridge count (TFRC), the A-B ridge and the ATD angle.

The pattern of the palmar flexion creases and the white lines were studied in addition to the genetic traits.

Methods: 80 schizophrenics (patients group) were compared to 100 psychiatrically free subjects (control group) using the inked method, results were compared with our findings in indiopathic epilepsy.

Summary of results: 1- Changes in the dermatoglyphic genetic traits were similar to those changes found in patients with idiopathic epilepsy.

2- Schizophrenics showed characteristic dermatoglyphic features of finger tips and palms which represent quantitative varying polygenic traits.

3- The pattern of the palmarflexion creases and the white lines showed different varieties that also indicate the polygenic nature of the disease.

Conclusions: 1- Schizophrenia is genetically determined and has a common aetiological relationship with idiopathic epilepsy.

2- The mode of genetic transmission in schizophrenia is polygenic.

SUSTAINED $5HT_{2A}$ RECEPTOR OCCUPANCY OF ZIPRASIDONE USING PET LIGAND ^{18}F SETOPERONE IN HEALTHY VOLUNTEERS

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Ziprasidone is a novel antipsychotic in late clinical development. The time course of its D_2 receptor occupancy has been previously demonstrated in healthy volunteers [1] and ziprasidone is associated with a low incidence of extrapyramidal side-effects (EPS). This study aimed to determine $5HT_{2A}$ receptor occupancy, and whether high occupancy may account for the low incidence of EPS. Eight healthy volunteers were each scanned on two separate occasions approximately 1 week apart. Nanomolar doses of ^{18}F-setoperone (7 mCi) were used as the $5HT_{2A}$ receptor ligand [2]. The first scan provided baseline binding for each individual. At pre-determined time points prior to the second scan, after at least 4 hours fasting, they received 40 mg ziprasidone orally, so that two volunteers were scanned at each time point post dose. Three-compartment modelling of setoperone pharmacokinetics was performed. The mean $5HT_{2A}$ receptor occupancy by ziprasidone is shown below:

	Ziprasidone receptor occupancy at various time points (hr)			
	4	8	12	18
5HT2A (%)	95.4	92.0	78.4	46.7
D2 (%)	79.4	68.2	52.8	32.2

Means of two individuals are shown, but differences between subjects were very small. Data on D_2 occupancy [1] obtained following the same dose of ziprasidone in a separate study are listed for comparison. Plasma levels of ziprasidone are being determined to confirm that exposure was similar in the two studies. *Conclusions:* $5HT_{2A}$ receptor occupancy in this study substantially exceeds the known D_2 occupancy at all time points. This may explain the low incidence of EPS with ziprasidone.

[1] Bench CJ et al., Psychopharmacology (in press).
[2] Blin J et al., J. Neurochem. 54 (1990) 1744–54.

THE ANATOMY OF THE FUNCTIONAL PSYCHOSES

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The idea that the 'functional' psychoses have their origins in brain as opposed to psychological dysfunction has a long history. Advances in imaging procedures have facilitated the study of brain architecture in psychiatric syndromes, and a number of correlates have emerged.

Using the Lothian Psychiatric Case Register, all patients discharged from in-patient care at the Royal Edinburgh Hospital during the years 1993 and 1994 with ICD-9 codes corresponding to the 'functional' psychoses (295, 296, 297 and 298) and aged between