Conclusions: Although there appears to be a trend toward a worsening of cardiac function with clozapine treatment, further investigations need to be carried out taking into account confounding factors that are known to be implicated in cardiac dysfunction. Establishing a clearer understanding of the link between the two will help patients and clinicians balance the risk of cardiac problems and improved psychopathology and help to institute cardiac monitoring guidelines for patients treated with clozapine.

Gamma synchrony in first-episode psychosis

G Flynn[1,2], D Alexander[1,3], C Galletly[1,4], E Gordon[1,3], A H[1,5], T Whitford[1,6], L Williams[1,6], W Wong[1,7], P Boord[1,6]

[1]Brainnet Schizophrenia Research Group; [2]SSWAHS Early Psychosis Intervention Program; [3]Brain Resource Company; [4]Adelaide University; [5]The University of Sydney; [6]Brain Dynamics Centre; and [7]The Early Psychosis Intervention Program Liverpool Hospital, Australia

Background: This project will compare gamma synchrony in 55 subjects with recent onset psychosis and 110 age-, sex- and education-matched controls. An auditory oddball and a visual working memory paradigms were used, to explore the hypothesis that disturbed 'binding' in psychosis is not limited to auditory processing.
Methods: The EEG data were analyzed using a measure of phase synchrony, described in detail elsewhere (Haig et al. 2000). There were two important differences in the present work. First, multiple frequencies were assessed, rather than simply 40 Hz. Second, a 512-ms fast Fourier transform window was used to estimate the phases at a given frequency, rather than 256 ms. This provided an improved frequency resolution (~2 Hz), at the expense of temporal resolution. The phase synchrony was estimated for six frequency bands between 35 and 45 Hz at 10-ms intervals.
Results: Multiple analyses of covariance (controlling for age) showed significant excesses of gamma synchrony in the psychosis group for both paradigms with different topographical distribution in each. In general, there were more marked differences in the auditory paradigm, a dominant frontal and left-sided abnormality in both, with elevated synchrony posteriorly in the visual paradigm.
Conclusion: Elevated synchrony in both paradigms supports the potential role of abnormal assembly formation as a generalized mechanism responsible for the production of psychotic symptoms.

Duration of untreated psychosis: the relative contribution of individual vs. community factors

A Frost[1], V Carr[2], S Catts[3], B O'Toole[4]

[1]Royal Brisbane and Women's Hospital; [2]Neuroscience Institute of Schizophrenia and Allied Disorders (NISAD); [3]Hospital and Community Psychiatry, University of Queensland; and [4]ANZAC Institute, The University of Sydney, Sydney, Australia

Background: Although some debate exists in the literature, there is a general consensus that patients with a longer duration of untreated psychosis (DUP) have poorer health outcomes than those treated early. Two recent meta-analyses have established this relationship as being of moderate effect size. Recent research has focused on reducing DUP through either a community approach or a 'at-risk' individuals approach. However, it is not currently established in the literature the relative contributions of individual vs. community factors predicting DUP.
Methods: The present study examined an existing research cohort of 456 Early Psychosis (EP) patients, from 19 mental health teams. The DUP of 326 of these patients had been assessed by the clinician. Multilevel modeling was used to establish the relative contribution of service level variables, and patient level variables.
Results: The initial null model showed that the service level accounted for 0.54% of potentially explainable variance in the total model; this was not significant ($P = 0.36$). The remaining 99.46% of variance was accounted for by the patient level. An exploratory analysis of individual factors showed that item 7 of the HoNOS (Depressed Mood) had a significant positive relationship to DUP ($P = 0.01$), while item 10 (problems with ADLs) had a negative relationship approaching significance ($P = 0.06$).
Conclusions: While other individual predictive relationships need to be tested, this study identifies depression as a candidate risk factor for prolonged DUP. Importantly, this research also highlights the central importance of individual factors over community factors in producing treatment delays.

Multimodal imaging of the mismatch negativity deficit in schizophrenia

R Fulham[1], P Michie[2], P Ward[3], M Hughes[1], U Schall[1]

[1]Centre for Brain and Mental Health Studies, Newcastle University; [2]School of Behavioural Sciences, Newcastle University; and [3]Schizophrenia Research Unit, Liverpool Hospital, Liverpool, Australia

Background: Mismatch negativity (MMN) is an electrophysiological response to novel auditory stimuli. This project examines the developmental time course