

Lundbeck Foundation Center of Excellence for Clinical Intervention and Neuropsychiatric Schizophrenia Research (CINS):

CINS is a multidisciplinary research center based at the Center for Clinical Intervention and Neuropsychiatric Schizophrenia Research (CNSR), Copenhagen University Hospital, Psychiatric Center Glostrup.

Other participants from Copenhagen University Hospital are: Psychiatric Center Copenhagen, Bispebjerg, Functional Imaging Unit, Glostrup Hospital, Danish Research Center for Magnetic Resonance, Hvidovre Hospital, Neurobiology Research Unit, Rigshospitalet, and Danish Psychiatric Biobank, Sct. Hans Hospital. International participants are Institute of Psychiatry, King's College London, and The Rudolf Magnus Institute of Neuroscience, University Medical Centre Utrecht.

The primary aims of CINS are to provide a scientific basis for new treatment and preventive strategies directed at the pathogenetic and pathophysiological disturbances in individual patients - and in the long run to develop tools to predict the effect of specific interventions in individual patients with schizophrenia. Schizophrenia is a complex disease.

Consequently, any given group of patients with an ICD-10 or DSM-IV diagnosis of schizophrenia is likely to contain several pathogenetic and pathophysiological different types of the illness. Accordingly, studies based on the diagnostic criteria are unfit to explore pathogenetic and pathophysiological disease mechanisms as well as treatment effects in individual patients.

In CINS we are characterizing biologically meaningful subtypes of the schizophrenias, so called endophenotypes or intermediate phenotypes, based on specific disturbances in brain structure, neurochemistry, brain function, and information processing and on the relation of these disturbances to each other, to the environment, and to the genes.

There are several problems in the characterization of endophenotypes, among others gene expression is influenced by environmental factors including medication, the disease process, and age. To meet these problems, we are in CINS recruiting, studying, and following cohorts of initially antipsychotic-naïve first-episode schizophrenia patients and patients at ultra high risk of developing schizophrenia, studying twins, and studying the effects of specific interventions on specific and composite endophenotypes in different groups of patients and healthy subjects.

CINS started up in January 2009 and has already contributed significantly to the understanding of the involvement of different biological and functional processes – and how they relate to each other – in the pathophysiology of the different schizophrenias.