Laboratory of Genetic/Psychiatric Epidemiology and Biostatistics

We are interested in understanding of the clinical, neuropsychological, and genetic research of psychiatric disorders. The application of the statistical modeling approach is given for our studies of endophenotype, familial aggregation, genetic factors and the interaction of external risk factors in psychiatric disorders. Based on our empirical results on the potential endophenotypic markers to genetic susceptibility to schizophrenia, we have applied these markers in our fine-mapping of susceptibility genes to schizophrenia. We found that there exists a modest familial aggregation for Wisconsin Card Sorting Test and that a higher familial loading of schizophrenia is associated with greater recurrence risk ratio and heritability. We also found that the familial aggregation of niacin flush response in schizophrenia families, the greatest heritabilities ranged from 47% to 54%. The finding indicated that more attenuated flush response to topical niacin was shown in schizophrenia probands and their relatives from multiplex families than in their counterparts from simplex families. This may suggest that niacin flush response impairment is a potential marker of genetic vulnerability for schizophrenia. In addition, we have developed a new physical measurement scale that includes the mainly qualitative Waldrop scale and some quantitative measures of the head and face area. We concluded that this new physical measurement scale could be reliably applied in our study subjects, showing more minor physical anomalies in schizophrenic patients than in comparison subjects. Recently, we also used claims data from the National Health Insurance database to investigate the prevalence/incidence, predictors and lifetime healthcare expenditures of psychiatric disorders. Welcome to join us or contact us if you have any interests or suggestions!

Representative Publications