

**Field: Medical Science/ Neuroscience**

**Planning Group Members:**

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**Session Topic:**

***Molecular Basis of Human Mind and Mental Disorders***

Humans' activities may be recognized to be well-controlled by intelligence dependently on the personal experiences and intentions. Such a view on human behaviors is largely based on the thought that they are too complex and adaptive to be expressed by hardwired logics as seen in insects and other primitive animals. Twin analyses and other genetic studies, however, have unveiled that not a few mind-related human traits, e.g., personality (neuroticism, extraversion/introversion, etc.), autism, alcoholism, and mental disorders including schizophrenia and depression are inherited, at least partly, that is, these traits depend on the genetic background or the "hardware" as well as the environment. One of the most obvious gene-directed (complex) behaviors of humans may be sexual activities, though the causes of sexual orientation are controversial. Understanding of the molecular basis of these human traits would provide us with a vital clue to a cure for and prevention of some mental disorders. In this session, four speakers will present their ongoing studies on the genetic basis of human activities and mental disorders (schizophrenia and depression) as well as their new remedy.