

**Genetic Testing for Psychiatric Disorders**  
A Statement by the Board of Directors of the  
International Society of Psychiatric Genetics

ISPG offers the following guidance to the general community about the value of genetic tests for psychiatric disorders. There is a history of successful use of genetic tests for several neuropsychiatric disorders, including developmental disorders (phenylketonuria or PKU, and fragile X syndrome) and some forms of dementia (Huntington's disease or HD). Such tests can be used to screen for the disorder before symptoms develop (PKU) or to establish the diagnosis of someone with symptoms and to establish which patients would be most likely to respond (or to develop side-effects) with a particular medication.

In 2007, The American Society of Human Genetics issued a statement on evaluating "Direct-to-Consumer" genetic tests ([http://www.ashg.org/pdf/dtc\\_statement.pdf](http://www.ashg.org/pdf/dtc_statement.pdf)). The main measures are **analytic validity** (does the test accurately measure what it is supposed to measure?) and **clinical validity** (is there adequate scientific evidence to support the correlation between the genetic variant and a particular health condition or risks?) A valid test can then be evaluated for clinical utility (is the test likely to improve patient outcomes?). See <http://www.cdc.gov/genomics/gtesting/ACCE/index.htm>.

The widely used tests for PKU, fragile X and HD have clearly established analytical and clinical validity as well as clinical utility. Although there are no effective therapies yet for HD, confirming the diagnosis today provides a clinician and a family with useful information about how the patient's illness is likely to progress and therefore can help predict the needs of the patient and his/her caregivers over time.

Currently, there are no such clinically valid tests for most psychiatric disorders. We need tests which can improve substantially our ability to diagnose these disorders, guide treatment and predict about the future for the patient. However, more research is needed to develop such tests and to determine their validity and utility before they are exploited in clinical practice.

In addition, when genetic tests do exist, there are real risks when acting on a test result. Taking unnecessary or unproven treatments, stopping or avoiding needed treatments, changing life plans, or terminating a pregnancy can have a serious and even irreversible adverse impact on an individual or a family, particularly when based on misinformation or misinterpretation. Thus, premature marketing of genetic tests can do harm to individuals and families. Their adverse consequences could delay or impede the widespread use of later tests which are clinically useful. Before commercialization or widespread clinical use, research should demonstrate that the practical benefits of a test outweigh its risks. Genetic counseling programs to help people to understand, interpret and act on their test results are needed.

Additionally we advocate the development and dissemination of clinical and community education programs to minimize the stigma or other disadvantage (related to life/health insurance or job security) that individuals with psychiatric conditions could experience if they chose to obtain such a test for clinical reasons.