

# Biomarkers And Blood Test Breathe New Life Into Diagnosis And Treatment Of Mental Illness

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Early detection and proper care is a common message used by health care organizations in their efforts to educate people and governments throughout the world about winning the war against certain cancers and other chronic diseases.

But does this message offer the same real hope of change for individuals and caregivers who live with the chronic and disabling affects of schizophrenia and other mental and neurological disorders? Early detection and proper care is less than assured. This is especially true when general practitioners and psychiatrists must rely on a century-old, highly subjective and time consuming verbal diagnosis that hopefully will help them identify the exact psychosis that is causing the delusions, hallucinations, disorganized thinking and other psychotic symptoms. This process often delays treatment and extends the suffering of millions throughout the world.

“ About 24 million people suffer worldwide from schizophrenia. Treatment is more effective in the

*initial stages of the disease, but more than 50 percent of persons with this disorder are not receiving appropriate care.*

Existing diagnosis and treatments are failing too many people who suffer from schizophrenia and other mental and neurological disorders, as well as contributing to runaway global health care costs.

But in early 2009, Rules-Based Medicine Inc. (RBM), the leading multiplexed biomarker testing laboratory based in Austin, Texas, plans to sell worldwide a reliable and objective blood test for the diagnosis of schizophrenia. This diagnostic blood test, which relies on RBM's comprehensive protein biomarker assay and technology platform, is based in large part on proprietary biomarkers that are a signature for schizophrenia.

The identity of these biomarkers are the result of 12 years of ground-breaking research by Sabine Bahn, M.D., Ph.D., MRCPsych, of the Cambridge Centre for Neuropsychiatric Research (CCNR) at the Institute of Biotechnology, University of Cambridge in the United Kingdom. Aided by funding from Stanley Medical Research Institute, the National Alliance for Research on Schizophrenia and Depression and University/Higher Education Innovation Fund, Bahn and her team of researchers tested spinal fluid and analyzed post-mortem tissues of schizophrenic brains in their quest for a scientific approach that can enable more appropriate and timely therapeutic intervention.

A psychiatrist by training, Bahn cofounded Psynova Neurotech in 2005 to develop and commercialize novel biomarkers—genes or proteins in tissues, blood and body fluids—that can distinguish schizophrenia from Alzheimer's disease, bipolar disorder, manic depression or dementia. The founding intellectual property of her ground-breaking work is licensed on an exclusive worldwide basis by Psynova from Cambridge Enterprise Limited, the University of Cambridge's technology transfer company.

The last piece to fall in place came in June 2008 when Psynova and RBM agreed to partner in the validation, regulatory approval and manufacture of a diagnostic blood test.

This first blood test for the diagnosis of schizophrenia is a scientific tool that can help general practitioners and psychiatrists diagnose patients much sooner, say Bahn and RBM's Chief Executive Officer, Craig Benson, both of whom have witnessed first hand the suffering of a family member with a mental disorder. It also offers the potential to identify disease subtypes, develop proper treatment options, monitor patient responses and discover novel drug approaches.

"Our diagnostic blood test represents new hope for the millions of individuals throughout the world with schizophrenia," says Bahn, "not only for early detection and proper care but more personalized treatments that would make the trial and error approach they now know obsolete."

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