

## **Blood testing for mood disorders**

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Indiana University School of Medicine researchers have isolated biomarkers in the blood that identify mood disorders, a breakthrough that may change the way bipolar illness is diagnosed and treated. The report will be published in the February 26 advance online edition of the journal *Molecular Psychiatry*.

The panel of markers is present in differing amounts in individuals suffering from high or low mood states. The concentration of the blood markers also varies depending on the severity of the depression or mania the individual experiences.

"This discovery is a major step towards bringing psychiatry on par with other medical specialties that have diagnostic tools to measure disease states and the effectiveness of treatments," said Alexander B. Niculescu III, M.D., Ph.D., lead author and assistant professor of psychiatry, medical neurobiology and neuroscience at the IU School of Medicine Institute of Psychiatric Research.

"Although psychiatrists have been aware that bipolar illness and other psychiatric conditions produced molecular changes in the brain, there was no way to measure those changes while the patient was living," Dr. Niculescu said. "Blood now can be used as a surrogate tissue to diagnose and assess the severity of the illness."

The researchers discovered that the molecular changes in the brain are reflected in the blood producing biomarkers whose levels correlated with the severity of the symptoms. This gives psychiatrists an objective tool



to assess the effectiveness of a medication on individual patients without the typical lengthy waiting period, said Dr. Niculescu.

The researchers isolated the blood biomarkers in 96 patients involved in the initial research, which was supported by National Institutes of Health grant funding, NAESAD and funds from Eli Lilly and Company. Next the Indiana University researchers are planning a larger study looking at these mood markers in response to treatments, and they will use their unique methodology to seek biomarkers for other psychiatric diseases.

Source: Indiana University

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