

# Protein marker for schizophrenia risk

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A protein found in immune cells may be a reliable marker for schizophrenia risk, report researchers in a new proteomics study appearing in the July issue of *Molecular and Cellular* proteomics.

Schizophrenia is a severe and complex psychiatric illness that affects about 1% of the population. Diagnosis currently relies on subjective clinical interviews and the assessment of ambiguous symptoms, which frequently leads to delayed diagnosis and treatment. As such, biomarkers that would indicate schizophrenia risk or onset would be extremely useful.

Sabine Bahn and colleagues sought to find such a "protein fingerprint" in the blood (due to its accessibility). They compared protein profiles of schizophrenia patients and controls using mass spectrometry and identified two peaks highlighting a significant change. These were identified as alpha defensins, proteins responsible for killing microbes and viruses in the innate immune response.

Bahn and colleagues confirmed their findings by examining alpha defensin levels in the blood of 21 twin pairs discordant for schizophrenia (where one sibling manifests the disease while the other does not). In these twin sets, both siblings had significantly elevated alpha defensins as compared with a group of control twins. Changes were also found in patients who were investigated soon after diagnosis, which means that higher levels of alpha defensins were not caused by medication or progression of the disease.

Source: American Society for Biochemistry and Molecular Biology

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