

# Antibody may be detectable in blood years before multiple sclerosis symptoms appear

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An antibody found in the blood of people with multiple sclerosis (MS) may be present long before the onset of the disease and its symptoms, according to a study released today that will be presented at the American Academy of Neurology's 66th Annual Meeting in Philadelphia, April 26 to May 3, 2014.

"If our results can be replicated in larger populations, our findings may help to detect MS earlier in a subgroup of patients," said study author Viola Biberacher, MD, with Technical University in Munich, Germany. "Finding the disease before [symptoms](#) appear means we can better prepare to treat and possibly even prevent those symptoms. This finding also demonstrates that the antibody development to the KIR4.1 protein, a protein found in some people with MS, precedes the clinical onset of disease suggesting a role of the autoantibody in how the disease develops."

For the study, 16 healthy [blood donors](#) who were later diagnosed with MS were compared to 16 healthy blood donors of the same age and sex who did not develop MS. Scientists looked for a specific antibody to KIR4.1. Samples were collected between two and nine months before the first symptoms of MS appeared.

Next, researchers looked at [antibody levels](#) in the blood at additional time points up to six years before and then after disease onset in those who had the KIR4.1 antibody in their [blood](#).

All of the healthy controls tested negative for the KIR4.1 antibody. Of those who later developed MS, seven people tested positive for the antibodies, two showed borderline activity and seven were negative.

In the study, KIR4.1 [antibodies](#) were found in the people with pre-clinical MS several years before the first clinical attack. Concentrations of the antibody varied at different time points during pre-MS in individual people.

"The next step is to confirm these findings in larger groups and determine how many years before onset of disease the antibody response develops," said Biberacher.

Provided by American Academy of Neurology

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