

First blood biomarker for multiple sclerosis discovered

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A blood test for determining the subtype of MS could be as little as two years away following the discovery of a blood biomarker (Credit: [alexraths/Depositphotos](#))

Although there is no known cure for multiple sclerosis (MS), there are treatments that can help prevent new attacks and improve function after an attack. However, there are three subtypes of the disease and determining this, as well as the appropriateness and effectiveness of a patient's current treatment, involves an array of expensive, time-consuming tests. Now, after a search lasting 12 years, an international team of researchers has identified a biomarker that would allow MS subtypes to be determined with a simple blood test.

Currently, when patients are diagnosed with MS they face a wait before the subtype of the disease can be determined. During this time, they may receive medication that is ineffective for periods of weeks. The researchers say the biomarker blood test, which can determine the type of MS someone has with an accuracy of 85 to 90 percent, will allow doctors to adapt treatments faster.

"This is a significant discovery because it will facilitate the ability to quickly and simply make a prognosis of the three types of MS and will allow clinicians to adapt their treatment for MS patients more accurately and rapidly," says Professor Gilles Guillemin, a researcher at Australia's Macquarie University who oversaw the study.

It is also hoped the research could lead to the development of new therapeutics and more personalized treatments for those with the disease.

"The unique information that we will receive from the biomarker within an individual, means that it could also be possible develop biomarker guided personalized treatment for each patient," adds Dr Lim, the lead researcher of the study.

As the biomarker test involves tryptophan, which the researchers point out is known to be involved in brain inflammation, there is an expectation that it could lead to a greater understanding of other diseases caused by inflammation and neurodegeneration, such as Alzheimer's, Parkinson's and motor neurone disease (aka Lou Gehrig's disease).

The researchers are now working to develop a clinical blood test kit that could be available within as little as two years. Their study appears in the journal *Scientific Reports*.

Source: [Macquarie University](#)