

Major step towards Alzheimer's blood test

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Credit: Cardiff University

A research team, led by Cardiff University, has made a significant step towards the development of a simple blood test to predict the onset of Alzheimer's disease.

Funded by the Alzheimer's Society, the group of researchers from Cardiff University, King's College London and the University of Oxford studied blood from 292 individuals with the earliest signs of memory



impairment and found a set of biomarkers (indicators of disease) that predicted whether or not a given individual would develop Alzheimer's disease.

Professor Paul Morgan, Director of Cardiff University's Systems Immunity Research Institute, said: "Our research proves that it is possible to predict whether or not an individual with mild memory problems is likely to develop Alzheimer's disease over the next few years. We hope to build on this in order to develop a simple blood test that can predict the likelihood of developing Alzheimer's disease in older people with mild, and possibly innocent, memory impairment."

The study took <u>blood samples</u> from individuals presenting with very common symptoms of <u>memory impairment</u> and measured a large number of proteins belonging to a part of the immune system which is known to drive inflammation and has previously been implicated in <u>brain diseases</u>. When the individuals were re-assessed a year later, about a quarter had progressed to Alzheimer's disease and three of the proteins measured in their blood showed significant differences from the <u>blood</u> of participants that did not go on to develop the disease.

Professor Morgan added: "Alzheimer's disease affects around 520,000 people in the UK and this number is continually growing as the population ages. As such it is important that we find new ways to diagnose the <u>disease</u> early, giving us a chance to investigate and instigate new treatments before irreversible damage is done."

These new findings laid the groundwork for a much larger, ongoing study funded by the Wellcome Trust and involving several UK Universities and Pharmaceutical companies that will seek to replicate the findings and refine the test.

More information: Svetlana Hakobyan et al. Complement Biomarkers



as Predictors of Disease Progression in Alzheimer's Disease, *Journal of Alzheimer's Disease* (2016). DOI: 10.3233/JAD-160420

Provided by Cardiff University

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