

Study examines genetic risk factors for Alzheimer's disease

Cardiff University researchers have found evidence for new genes involved in the development of Alzheimer's disease.

The study, to be published in the next issue of the journal *Human Molecular Genetics*, tested more than 17,000 gene variants in 4,000 volunteers.

Several genes were found to show evidence of contributing to Alzheimer's disease, the most interesting gene being 'GALP' which could affect the development of tangles within brain cells, a hallmark of Alzheimer's disease.

Professor Julie Williams, School of Medicine, who leads this project with Professor Micheal Owen said: "Whilst these genes are likely to make modest contributions to disease more work needs to be done to test their strength in other samples of volunteers."

Professor Owen, School of Medicine said: "Identifying susceptibility genes for Alzheimer's disease provides a knowledge base for the development of potential new treatments and diagnostic tests. This study is just the first in series we are undertaking using new technology to look comprehensively at every gene in the human genome in Alzheimer's Disease and we hope that there are other exciting findings to come."

There is no known cure or preventative treatment for Alzheimer's disease, which affects one in 20 people over the age of 65 and one in five over the age of 80 in the UK and more than 12 million people worldwide. The disease causes a distressing, irreversible and progressive loss of brain function and memory.

The School of Medicine's Department of Psychological Medicine has established a bank of more than 3,000 volunteers in South Wales, and elsewhere in the UK, to identify possible genetic risk factors for Alzheimer's Disease.

"This is one of the largest studies of its kind and involves many Welsh families " said Professor Julie Williams. "It is by virtue of the support given to us by Alzheimer's sufferers and their carers that we are able to understand factors involved in the disease process. Many genes will be linked with Alzheimer's disease and our current programme of research is designed to identify them."

Source: Cardiff University

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