

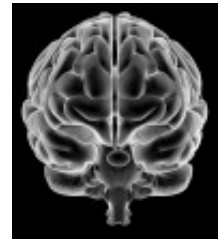


Research Directions

Office of Research Services

Could inflammation play a role in dementia?

Dr Cindy Kersaitis from the School of Biomedical and Health Sciences and Associate Professor Jillian Kril from the University of Sydney are exploring the role of inflammation in frontotemporal dementia through an Alzheimer's Australia Dementia Research Grant.



'Frontotemporal dementia (FTD) is a debilitating group of diseases affecting the frontal and temporal lobes of the brain, that can cause changes in behaviour and language dysfunction in people affected. While FTD is equally as prevalent as Alzheimer's disease, little is known of the cause of the disease', says Dr Kersaitis. 'Previous research in this field has suggested that altered immune function leading to an inflammatory response may be one of the mechanisms by which degeneration occurs in the brain tissue. This project aims to build on this work by identifying factors involved in inflammatory processes in FTD, and gaining an understanding of how inflammation relates to the progression of the disease.'

The research team will study brain tissue samples from various parts of the brain where FTD commonly occurs, and at different stages of progression of the disease, to seek evidence of early and ongoing immune system response and inflammation. Tissue from FTD-positive cases will also be compared to tissue where no FTD was present, to assess differences in key chemical markers, tissue structure and other indicators of the pathology of FTD compared to non-FTD brain tissue.

An understanding of the progression of FTD and its relationship to specific changes in brain tissue will shed light on the probable causes and underlying mechanisms by which FTD occurs. If inflammation and immune responses are significant factors in disease progression, this research will provide insights into potential therapeutic interventions for treatment of FTD aimed at decreasing the inflammatory or immune responses to slow progression of a disease that affects many Australians and their families.

Project Title: Immunoglobulins and inflammation in frontotemporal dementia

Funding has been set at: \$22,000

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