



Application number/Title: 43062 - Exploring the role of diet in mental illness, cognition, and multiple sclerosis

Applicant PI: Dr Wolfgang Marx

Application Institution: Deakin University, Australia

Keywords provided by the Applicant PI to describe the research project:
Cognition, diet, mental-health, multiple sclerosis

Application Lay Summary:

The role of diet as an intervention for prevention and management of mental health and related neurological diseases has received growing interest from patients, the general public, clinicians and researchers. Multiple nutrients within a healthy diet such as fibre, antioxidants, and vitamins may beneficially interact with pathways that contribute to these conditions. However, studies that have explored the relationship between these conditions are either lacking or have provided mixed results. The aim of this 2-year project is to explore the role of specific dietary components and healthy dietary patterns and their association with these diseases. In particular, we will explore the role of

- 1) The Mediterranean diet, a dietary pattern that has been shown in to be associated with lower rates of mental and neurological diseases in other populations,
- 2) A group of compounds called polyphenols that have anti-inflammatory and vasodilatory properties, and
- 3) Specific food groups including fish and dairy intake which have been associated in some studies with mental health and multiple sclerosis

Due to the large, well-characterised cohort within the UKBiobank, we hope that the results of this project will provide clarity to the existing evidence-base. We also hope that this project provides valuable information that can be used to evaluate the use of diet as a possible preventative factor and inform a line research that explores diet in the management of mental illness and multiple sclerosis.