



## Lifestyle factors influence on disease course and disability



Dr Steve Simpson Jnr, from the Menzies Institute for Medical Research, has recently concluded his three year MS Research Australia Fellowship, with valued funding support from MS WA, looking at the role that lifestyle factors play in an individual's disease course and disability. Using information collected from large groups of people with MS in Australia who have been followed over a number of years Dr Simpson has teased out a number of important factors which are related to disease course in MS.

Working with his collaborators, Dr Simpson looked at the role of lipids in MS and identified that higher body mass index (or BMI) was associated with greater disability and disability progression but not with relapses in established MS. Dr Simpson also examined the rates of anxiety and depression in early and established MS, investigating the role of stress and quality of life in MS. He showed that anxiety and depression were higher in people at early stages of the disease and that these rates were similar to those in established MS.

Dr Simpson showed that the effects of sunlight and vitamin D depend on an individual's genetics and that vitamin D levels can be predicted by latitude and higher sun exposure in early MS. However, this association drops off as disease progresses, suggesting that living with MS also has an effect on sun exposure behaviors in some individuals.

Dr Simpson's genetic research focused on the different role of genes in predicting relapses compared with disabilities. Dr Simpson achieved a great deal in his fellowship, publishing an outstanding 21 papers with many more underway. This research will help inform the clinical care of people with MS and enable further research into the role of lifestyle factors in MS. Dr Simpson also supervised a number of postgraduate students during the course of his fellowship, further building the capacity for MS research in Australia. Dr Simpson will now continue to use these large MS cohorts to investigate the many lifestyle factors that influence MS in individuals.