

International Conference on

# DEMENTIA AND DEMENTIA CARE

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## Dementia is a disease of the ependymal layer: Novel theory from looking at cognitive impairment in multiple sclerosis

The intricacies of dementia are explored in relation to varied studies on brain atrophy in multiple sclerosis and used to delineate the primary pathology of the latter. The theory examines the high frequency of cognitive impairment in Multiple Sclerosis and its early manifestation during the disease. The fact that there is associated brain atrophy cannot be explained by the degree of damage to neurons noted a 5 to 10 times greater rate of atrophy in Multiple Sclerosis. The cognitive changes with Multiple Sclerosis are then correlated embryologically to the subependymal zone explaining the pathology of brain atrophy and why we have not made more progress through research. Our understanding of the blood CSF barrier and the brain CSF interaction is poorly understood and probably holds the key to the symptoms of dementia. This interaction between the CSF and brain interstitial space is coordinated by the

ependymal and subependymal zone of the brain. This is a novel concept that will aim to explain the links of all forms of dementia, as well as directing fertile areas for research.

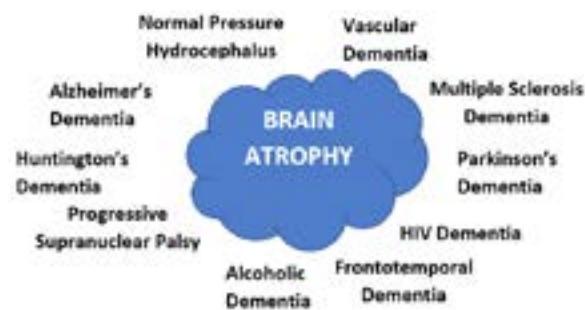


Figure 1: Highlighting all the forms of dementia which are associated with brain atrophy

## Biography

Philip McMillan is a consultant in the NHS with over 23 years of medical expertise. His primary focus has been around Geriatrics and Neurological Rehabilitation and has developed unique perspectives on the capacity of the brain to recover from injuries and disease. Through international collaboration he has proposed a nutritional protocol for dementia reversal and has recently had a breakthrough theory on the pathology of dementia. His current aim is to lead the field of dementia to a new direction of research and treatment of this devastating disease.

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