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## STRATEGY FOR CONTROLLING BRAIN INFLAMMATION DUE TO AGING, HEAD TRAUMA AND GENETIC PREDISPOSITION OF ALZHEIMER'S DISEASE

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**A**lzheimer's disease (AD) is a major cause of dementia. Major risk factors that can predispose a person to AD include aging, traumatic brain injury (TBI) and the presence of ApoE4 allele. All risk factors involve progression to memory loss due to continuous neurodegeneration causing inflammation. Aging, a major risk factor for AD can result in hypertension, vascular dementia, diabetic complications, coronary heart disease etc., which can all contribute to AD. TBI can set in motion to continuous inflammation in the brain. The presence of ApoE4 allele can be detected by isolating genomic DNA from saliva and determining single nucleotide polymorphism in ApoE gene. If ApoE4 allele is found there can be a three-four fold higher predisposition to AD compared to ApoE2 or ApoE3. One of the harmful effects of the ApoE4 allele is the harmful neurodegeneration due to inflammation. Vaccinia virus complement control protein has been shown to control compliment levels in the brain and could contribute to slowing the progression of AD along with life style and nutritional changes that could result in weight, glucose and lipid control.

### Biography

Girish Kotwal has completed his PhD from McMaster University, Canada and Postdoctoral Studies from National Institutes of Health, Bethesda, USA. He is an Adjunct Professor of Medicine at UMass Medical School, President at InFlaMed and Kotwal bioconsulting, LLC and Senior Scientist at Noveratech LLC. He has published more than 100 PubMed listed papers in reputed journals and has been serving as an Editorial Board Member of repute. Over a 30-year period beginning in 1988 with a report in the journal *Nature*, he began research on a complement control protein and showed that regulating complement activity in several CNS conditions could be potentially beneficial.

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