

COBRE/DEPT. OF TROPICAL MEDICINE SEMINAR

How a Common Everyday Virus like Epstein-Barr Virus can Predispose for Multiple Sclerosis

Several lines of evidence have identified Epstein-Barr virus (EBV), the causative agent of infectious mononucleosis, as a potential trigger of Multiple Sclerosis (MS). Epidemiological studies indicate that the risk of developing MS is ten fold greater in individuals who were infected by EBV during childhood and twenty fold greater in those developing mononucleosis. Further, EBV infected B cells have been identified in the brain of secondary progressive MS patients. There is a direct association with the strength and quantity of the EBV specific immune response in terms of antibody and memory CD8 T cells with MS patients, where patients have stronger memory responses than non-MS patients that also experienced EBV infection. Whether causative or a co-