

Increased levels of human herpesvirus ID'd in Alzheimer's

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(HealthDay)—Subjects with Alzheimer's disease have increased levels

of two strains of human herpesvirus, according to a study published online July 11 in *Neuron*.

Ben Readhead, M.B.B.S., from the Icahn School of Medicine at Mount Sinai in New York City, and colleagues constructed multiscale networks of the late-onset Alzheimer's disease-associated virome, integrating genomic, transcriptomic, proteomic, and histopathological data across four [brain regions](#) using tissue from human postmortem samples.

The researchers found that, compared with controls, subjects with Alzheimer's disease had increased human herpesvirus 6A (HHV-6A) and HHV-7. In two additional, independent, and geographically dispersed cohorts, these results were replicated. Regulatory relationships were seen linking viral abundance and modulators of APP metabolism; HHV-6A induced *APBB2*, *APPBP2*, *BINI*, *BACE1*, *CLU*, *PICALM*, and *PSEN1*.

"This study represents a significant advancement in our understanding of the plausibility of the pathogen hypothesis of Alzheimer's," a coauthor said in a statement. "If it becomes evident that specific viral species directly contribute to an individual's risk of developing Alzheimer's or their rate of progression once diagnosed, then this would offer a new conceptual framework for understanding the emergence and evolution of Alzheimer's at individual, as well as population, levels."

More information: [Abstract/Full Text](#)

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