

**David Salat, PhD.**

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Dr. Salat's primary research focus is on mechanisms and patterns of brain aging and neurodegeneration in Alzheimer's disease with primary attention towards understanding vascular contributions to cognitive impairment and dementia. His research team uses advanced neuroimaging as a methodology for understanding structural and functional neural health. Through this work, they have demonstrated links among vascular risk factors such as blood pressure and insulin resistance and brain tissue integrity and vascular brain injury. They have also described associations between cerebral blood flow and white matter integrity, vascular white matter disease and classical indices of Alzheimer's disease pathology, as well as the interactive impact of these pathologies on clinical progression of this disorder. Overall, Dr. Salat's results have led to the conclusion that cerebral hypoperfusion is an important mechanism of neural deterioration and cognitive impairment, and that this effect is particularly pronounced when combined with classical Alzheimer's disease pathology.

*Speech Title: Vascular Physiology, White Matter Lesions, Neurodegeneration, and Alzheimer's Disease*