New model for studying Alzheimer's disease

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The vast majority of Alzheimer's disease cases are not directly inherited but linked to environmental and genetic factors. Yet most models used for studying Alzheimer's in animals mimic the inherited form of the disease.

Yale researchers developed a novel model that may prove useful to the study of Alzheimer's at its earliest stages. Led by associate professor of

neuroscience Justus Verhagen and research scientist Alla Ivanova, the researchers studied mice lacking a protein, Fus1, that helps regulate mitochondria—the structures that maintain the balance of critical functions within cells.

In tests, these animals exhibited a loss of smell as well as spatial memory—early signs of Alzheimer's in people. If confirmed in further studies, the model could serve as an additional tool for understanding the role of Fus1 and mitochondria in the development of Alzheimer's, said the researchers.

Read the full study published in *Frontiers in Aging Neuroscience*.

 More information: Guillermo Coronas-Samano et al. Fus1 KO Mouse As a Model of Oxidative Stress-Mediated Sporadic Alzheimer's Disease: Circadian Disruption and Long-Term Spatial and Olfactory Memory Impairments, *Frontiers in Aging Neuroscience* (2016). DOI: 10.3389/fnagi.2016.00268

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