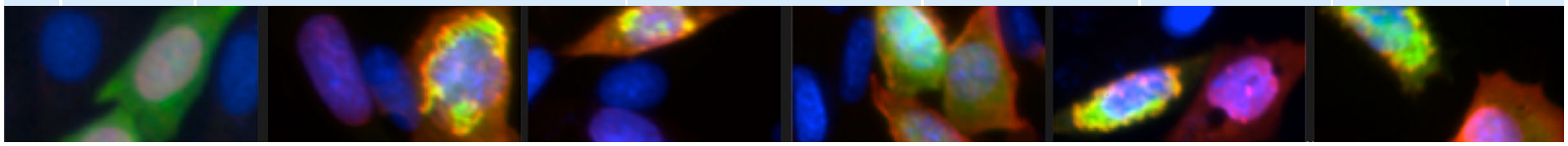

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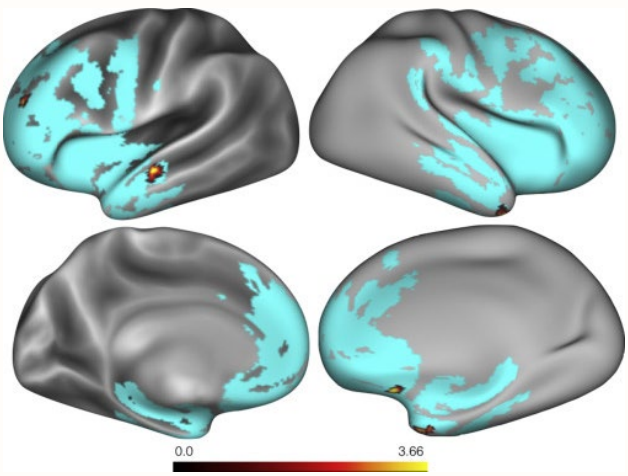
UNC13A: Subgrouping ALS by Genotype?

November 9, 2018 News in Brief Michelle Pflumm

A key challenge in developing therapies for ALS is the heterogeneity of the disease. To overcome this obstacle, some scientists are scouring the genomes of people with ALS to spot variants that could indicate whether they might benefit from these treatment strategies (see van Eijk et al., 2017).

Now, a research team led by Corey McMillan at the University of Pennsylvania in Philadelphia reports that a key change in the gene UNC13A may help determine whether people with ALS also develop frontotemporal disease. The retrospective analysis found that people with sporadic ALS harboring this variant exhibited signs of atrophy in the prefrontal and temporal lobes of the brain –the same regions of the brain targeted by FTD. A total of 109 people with sporadic ALS and 113 healthy volunteers participated in the study.



Subgrouping by genotype? *Increased atrophy could be detected in the frontal and temporal lobes of the brain of people with sporadic ALS harboring a key change in synaptic protein UNC13A. [Courtesy of Placek et al., 2018, Neurobiology of Aging.]*

The findings build on previous work, which found that this variant of UNC13A is associated with increased risk of developing ALS and FTD (see March 2018, April 2018 news; van Es et al., 2009; Karch et al., 2018).

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About 16% of people with sporadic ALS harbor this minor allele of the UNC13A gene (see van Eijk et al., 2017).

The synaptic protein UNC13A is thought to help ensure that signals are transmitted quickly and efficiently between neurons in the brain (Böhme et al., 2016; Reddy-Alla et al., 2017).

The study appeared in the January 2019 issue of *Neurobiology of Aging*.

Featured Paper

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