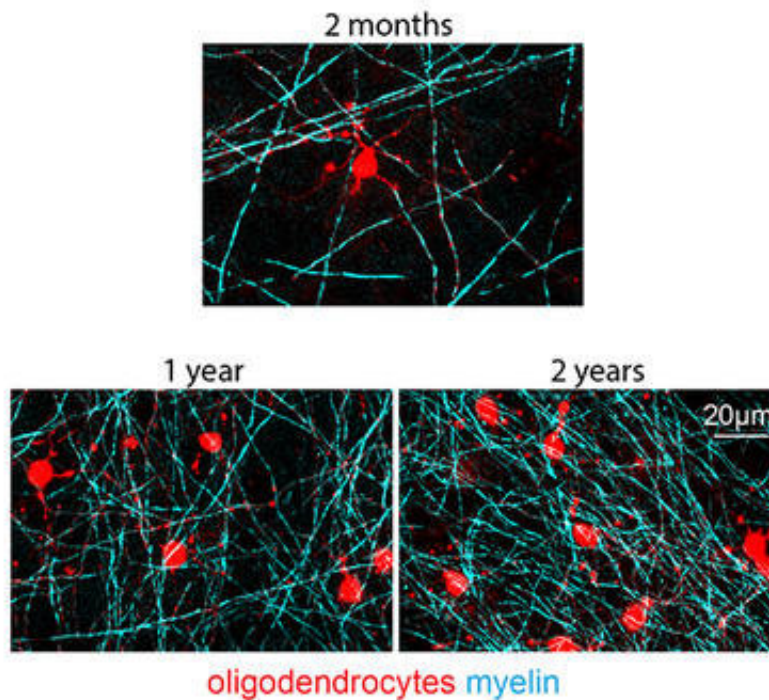


Brain's 'insulation' continues to form throughout life

March 20 2018, by Bill Hathaway



Myelin, the sheathing which protects connections between brain cells, continues to form throughout life, as seen here in light blue. Credit: Yale University

Myelin acts as insulation for millions of brain cells, allowing for swift and efficient transmission of signals across brain regions. Despite its crucial role, little is known about how stable this structure is in the adult brain and what impact aging has on its maintenance.

Yale neurologists Robert Hall, Alice Li, and Jaime Grutzendler devised techniques to track and precisely image [myelin](#) throughout the lifetime of the mouse. They discovered that myelin continues to form and restructure in the adult brain—indicating the potential for lifelong change. They also learned that during aging, myelin begins to deteriorate and myelin debris accumulate over time.

"Myelin is not static in the [adult brain](#) and may play an underappreciated role in brain plasticity, a role that likely to be disrupted as we age," Hill said.

The findings were published March 19 in the journal *Nature Neuroscience*.

More information: Myelin remodeling through experience-dependent oligodendrogenesis in the adult somatosensory cortex, *Nature Neuroscience* (2018).

[nature.com/articles/doi:10.1038/s41593-018-0121-5](https://doi.org/10.1038/s41593-018-0121-5)

Provided by Yale University

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