

[Prof Carmen Melendez's](#) work was recently highlighted in a Multiple Sclerosis Research Program of Department of Defense

The booklet available [here](#) refers to work on Promoting Myelin Formation via Manipulation of Oligodendrocyte Cytoskeleton see pages 6-7



Also the group's paper on

Acute and chronic demyelinated CNS lesions exhibit opposite elastic properties

was published in [Scientific Reports](#)

SCIENTIFIC REPORTS

OPEN **Acute and chronic demyelinated CNS lesions exhibit opposite elastic properties**

Received 14 October 2018; Accepted 28 November 2018; Published online 07 December 2018
Abstract: Demyelination of central nervous system (CNS) axons inhibits the rate of axonal growth and remyelination. Several studies have demonstrated that oligodendrocyte cytoskeleton is important for the physical properties of the CNS. However, the mechanical properties of oligodendrocyte cytoskeleton in acute and chronic demyelinated CNS lesions are unknown. We investigated the mechanical properties of oligodendrocyte cytoskeleton in acute and chronic demyelinated CNS lesions using atomic force microscopy (AFM). We found that the mechanical properties of oligodendrocyte cytoskeleton in acute demyelinated CNS lesions are significantly stiffer than those in chronic demyelinated CNS lesions, which is consistent with the known fact that oligodendrocyte cytoskeleton is more dynamic in acute demyelination. Our findings suggest that the mechanical properties of oligodendrocyte cytoskeleton are important for the physical properties of the CNS. This study provides a new insight into the mechanical properties of oligodendrocyte cytoskeleton in acute and chronic demyelinated CNS lesions.

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