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SEMINAR SERIES

Maladaptive Myelination in Pediatric Epilepsy

Monday, March 1, 2021 | 12:00pm - 1:00pm

REGISTER HERE:

https://stanford.zoom.us/webinar/register/WN_rrMRPAlKRD2BAhiEDWXW2Q

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Instructor, Neurology & Neurological Sciences, Stanford School of Medicine

Maladaptive myelination in epilepsy may represent a novel pathogenic mechanism in neurological diseases that can be targeted in the development of disease-modifying therapeutics. In this talk, Drs. Michelle Monje and Juliet Knowles will speak on a newly-appreciated form of brain plasticity, activity-dependent myelination, and how it may become maladaptive in children with epilepsy.

Dr. Monje is a pediatric neuro-oncologist and neuroscientist whose lab published pioneering work on activity-dependent myelination and neuron-glioma interactions. Dr. Knowles is a neuroscientist and child neurologist specializing in the treatment of children with epilepsy. She will discuss her discovery of a novel pathogenic mechanism in pediatric generalized epilepsy. Activity-dependent myelin plasticity is a newly recognized form of neural network adaptation, which is required for normal function. An unexplored possibility is that seizures may also alter myelin, with deleterious effects. Dr. Knowles's research demonstrates that seizures induce abnormal myelination which contributes to seizure progression.