



## Bi-directional control of epileptic networks by the thalamus

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Thursday, October 15<sup>th</sup> 2015, 16:00h

Life & Brain Center, Seminar Room, Ground Floor

Jeanne Paz is an investigator at the Gladstone Institute of Neurological Disease and Assistant Professor of Neurology at UCSF, San Francisco. Her laboratory is focusing on cellular, circuit, and molecular mechanisms by which brain injuries, cerebrovascular disease, and genetic mutations cause neurological disorders such as epilepsy. One very notable contribution of the Paz lab has been the discovery that seizures can be instantaneously aborted in real-time with closed-loop optogenetic control of a specific cell type. This novel finding has led to the award of the **International Michael Prize** in 2015, which is the top prize in epilepsy research world-wide.

### *Selected Publications*

**Paz JT**, Huguenard JR. (2015) Microcircuits and their interactions in epilepsy: is the focus out of focus? *Nat Neurosci*, 18(3): 351-359.

**Paz JT**, Davidson TJ, Frechette ES, Delord B, Parada I, Peng K, Deisseroth K, Huguenard JR. (2013) Closed-loop optogenetic control of thalamus as a tool for interrupting seizures after cortical injury. *Nat Neurosci*, 16(1): 64-70.

**Paz JT**, Bryant AS, Peng K, Fenno L, Yizhar O, Frankel WN, Deisseroth K, Huguenard JR. (2011) A new mode of corticothalamic transmission revealed in the *Gria4(-/-)* model of absence epilepsy. *Nat Neurosci*, 14(9): 1167-1173.