Reducing seizures by removing newborn neurons

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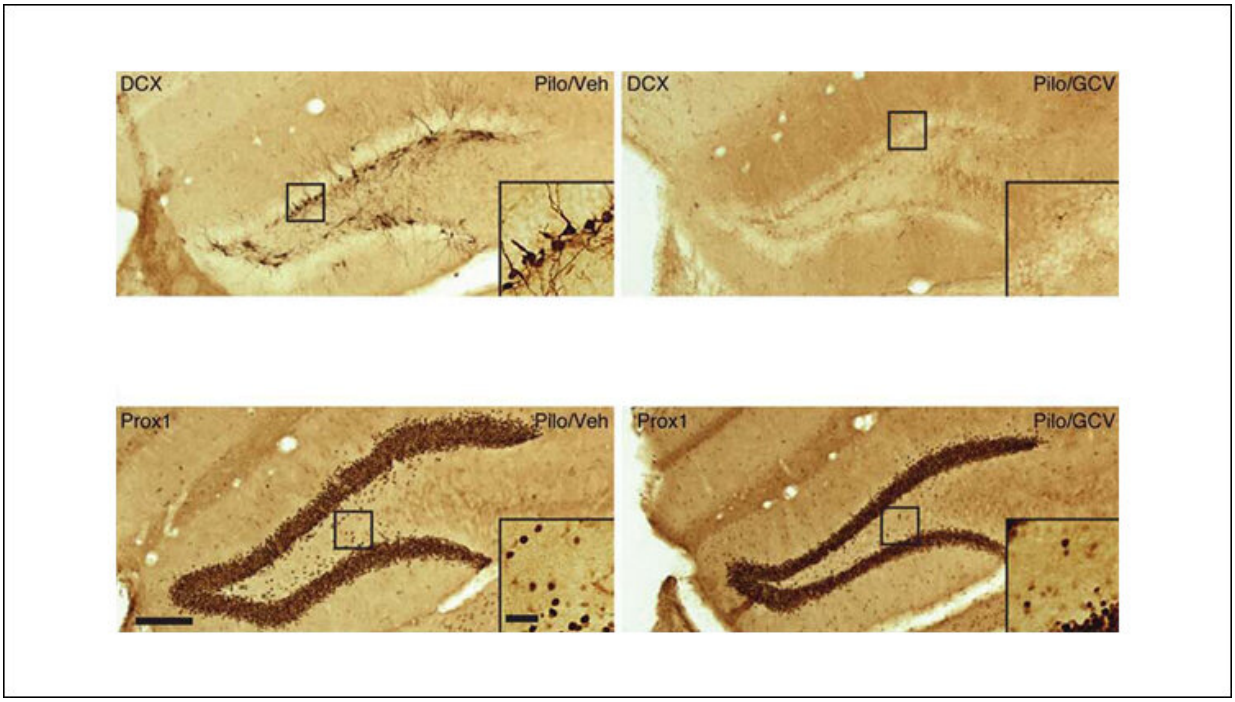

Removal of newborn neurons (right) Credit: Varma et al., JNeurosci 2019

Removing new neurons born after a brain injury reduces seizures in mice, according to new research in *JNeurosci*. This approach could potentially help prevent post-injury epilepsy.

New neurons generated following a brain injury often do not develop normally. Left untreated, these cells may contribute to the development

of epilepsy.

Jenny Hsieh and colleagues at the University of Texas at San Antonio continually removed new neurons that formed during the eight weeks following a seizure in mice. Hsieh's team monitored seizure activity in the mice and observed that the treated mice experienced a 65 percent reduction in seizures compared to the untreated mice. This effect required more than four weeks of continuous treatment.

Although these findings support a role for newborn neurons in epilepsy development, they also suggest additional factors are involved. Further research may bring us closer to complete prevention of injury-induced epilepsy.

More information: Targeting Seizure-Induced Neurogenesis in a Clinically-Relevant Time-Period Leads to Transient but Not Persistent Seizure Reduction, *JNeurosci* (2019). DOI: 10.1523/JNEUROSCI.0920-19.2019

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