Review of: "Impending role of hippocampal neurogenesis in the development of chronic epilepsy following seizures after Kainic acid and Pentylenetetrazol treatment"

Chan Young Shin[1]

1 Konkuk University

Potential competing interests: No potential competing interests to declare.

In this study, the authors investigated the expression of growth factors and cell proliferation in the hippocampus of experimental animals after chronic seizures induced by KA and PTZ. They argued that neurogenesis is involved in the manifestation of seizures. However, direct experimental evidence is sparse, and most of the data is observational and descriptive. It is not clear whether the observed increase in neurogenesis in the PTZ group is a direct consequence of seizures or homeostatic responses accompanied by the seizure or drug treatment. No proper explanation is available for the differences in proliferation and neurogenesis between KA and PTZ. Direct modulation of neurogenesis in the experimental groups may help to derive a more direct answer. The experimental conclusion is heavily dependent on histochemical staining, but the quality of the staining is rather poor in general. It would be better if the authors could provide data regarding the structural changes of synapses as well as physiological changes accompanied by the seizures and neurogenesis.