

Additional File 1. Study design, sample size and animal allocation

Study design	Sample size and Animal allocation	
miRNA microarray & qPCR confirmation	Control (control rat hippocampus)	Experimental (TLE rat hippocampus)
	6	6
miR-34a expression detection	Control (control rat hippocampus)	Experimental (post-SE rat hippocampus at 1 day/7 days/2 weeks and 2 months (TLE))
	6	6×4
miR-34a antagomir experiment	Control (miR-34a antagomir-control) (control rat hippocampus/7 days post-SE)	Experimental (miR-34a antagomir) (antagomir rat hippocampus/7 days post-SE)
	6	6
Caspase-3 expression by Western-blot	Control (control rat hippocampus)	Experimental (7 days post-SE rat hippocampus; antagomir and antagomir-control rat hippocampus 7 days post-SE)
	6	6×3
	Control (control rat hippocampus)	Experimental (7 days post-SE in the rat hippocampus; antagomir and antagomir-control rat hippocampus 7 days

		post-SE)
Caspase-3 by immunohistochemistry		
Neuronal death or apoptosis by TUNEL-assay	6	6×3
Neuronal survival by Nissl-staining		
Total number		102

Notes: Table 1 outlines the study design, sample size and animal allocation. Because there was a loss of animals due to death post-SE or because animals did not exhibit spontaneous seizures, the number of animals used in the study was somewhat larger. To be more specific, the experiment, grouping and animal number for statistical analysis is listed below (selection was random, whenever possible):

In the miRNA microarray & qPCR confirmation experiments, 15 SD rats were used for the lithium-pilocarpine treatment. Twelve animals reached the Racine IV-V scale and entered SE, and 6 SE rats survived SE into the chronic phase and developed spontaneous seizures (TLE); these were included as experimental; 6 normal SD rats were used as controls.

In miR-34a expression detection study, 50 SD rats were used for lithium-pilocarpine treatment. Forty of these animals reached the Racine IV-V scale and entered SE; 28 SE rats survived SE and among them, 18 post-SE rats were included as experimental in groups of 1 day, 7 days and 2 weeks (with 6 post-SE rats in each group).

Among the last 10 post-SE rats, 6 survived into the chronic phase and developed spontaneous seizures (TLE); they were included as experimental; 6 normal SD rats

were used as control.

In the miR-34a antagomir experiment, 20 SD rats were used for lithium-pilocarpine treatment; 16 reached the Racine IV-V scale and entered SE; 8 received antagomir-control and 8 received miR-34a antagomir; 6 antagomir-control and 6 miR-34a antagomir-treated rats survived 7 days post-SE. These animals were included in the control and experimental group, respectively.

To detect caspase-3 expression by Western-blot analysis, 32 SD rats were used for lithium-pilocarpine treatment; 24 animals reached the Racine IV-V scale and entered SE. Among these 24 rats, 8 were untreated, 8 received antagomir-control and 8 received miR-34a antagomir. The 6 rats that survived 7 days post-SE were included as the experimental in the 7 days post-SE group. Six antagomir-control and 6 miR-34a antagomir-treated rats that survived 7 days post-SE were included as the experimental in the groups of the antagomir-control and miR-34a antagomir at 7 days post-SE; 6 normal SD rats were used as control.

To detect caspase-3 by immunohistochemistry, neuronal death or apoptosis by TUNEL-assay and neuronal survival by Nissl-staining, 35 SD rats were used for lithium- pilocarpine treatment. Twenty-seven rats reached the Racine IV - V scale and entered SE; among those, 9 were untreated, 9 received the antagomir-control and 9 received the miR-34a antagomir. Six rats that survived 7 days post-SE were included as the experimental in the 7 days post-SE group. Six antagomir-control and 6 miR-34a antagomir-treated rats that survived 7 days post-SE were included as the experimental in the antagomir-control and miR-34a antagomir groups at 7 days post-SE; 6 normal SD rats were used as controls.

Regarding sample size, there were 152 Sprague Dawley rats used in the entire study, and the total number of rats eventually included in the statistical analyses was 102.