

ON-LINE APPENDIX

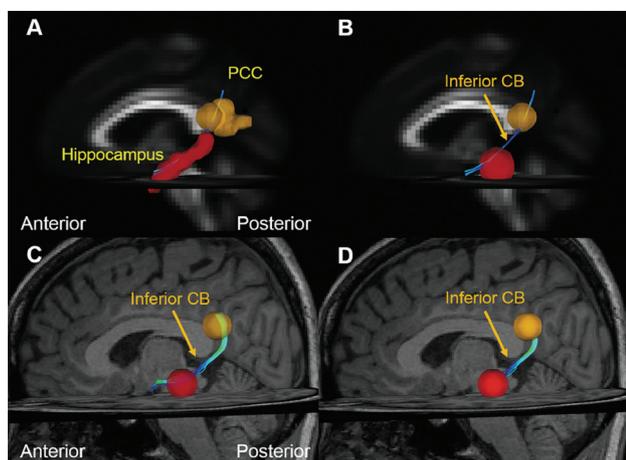
Inclusion and Exclusion Criteria for Participant Recruitment

The participants had no previous history of other neurologic or psychiatric diseases. The clinical diagnosis of the seizure focus was based on comprehensive evaluations, including detailed clinical history, careful interview, neuropsychological examination, long-term video electroencephalography, and MR imaging examinations. The criteria for patient recruitment included the following: 1) smaller left hippocampal volume than the right on T1WI and abnormal hyperintensity on T2WI¹; 2) absence of other structural abnormalities, such as trauma or tumor on structural MR imaging; 3) absence of severe head motion during a resting-state fMRI scan (less than

± 1 mm in translation and $\pm 1^\circ$ in rotation); and 4) drug-resistant MTLE without a brain operation.

REFERENCES

1. Coste S, Ryvlin P, Hermier M, et al. **Temporopolar changes in temporal lobe epilepsy: a quantitative MR imaging-based study.** *Neurology* 2002;59:855–61 CrossRef Medline
2. Hsu YC, Hsu CH, Tseng WY. **A large deformation diffeomorphic metric mapping solution for diffusion spectrum imaging datasets.** *Neuroimage* 2012;63:818–34 CrossRef Medline
3. Hsu YC, Lo YC, Chen YJ, et al. **NTU-DSI-122: A diffusion spectrum imaging template with high anatomical matching to the ICBM-152 space.** *Hum Brain Mapp* 2015;36:3528–41 CrossRef Medline
4. Yeh FC, Verstynen TD, Wang Y, et al. **Deterministic diffusion fiber tracking improved by quantitative anisotropy.** *PLoS One* 2013;8:e80713 CrossRef Medline



ON-LINE FIGURE. The detailed procedure of tracking the iCB involved the following steps: A DSI template was constructed from the DSI datasets of 122 healthy controls, which were coregistered under the large deformation diffeomorphic metric mapping framework^{2,3} and normalized to the Montreal Neurological Institute space; the hippocampus and the PCC ROIs of each hemisphere were generated in the Montreal Neurological Institute space by using the FreeSurfer segmentation labels in DSI studio; we applied these ROIs and reconstructed the bilateral iCB streamlines on the DSI template by performing deterministic tractography (A).⁴ We then shaped the anatomic ROIs into 2 spheres of 8 mm in radius covering the hippocampus and PCC (B). We normalized the native DSI data to the DSI template via the large deformation diffeomorphic metric mapping method to obtain the transformation matrix between the DSI template and the native DSI data; the spheric ROIs were transformed from the DSI template space to the native DSI space through the transformation matrix; and the bilateral iCBs were reconstructed in the native DSI space for each participant (C). Only coordinates of the WM voxels traversed by the main fiber bundle of the iCB were sampled to calculate mean GFA in the native space (D).

On-line Table: Voxelwise group comparison of iFC between the hippocampus and the PCC

	MNI Coordinates			T Value	P Value ^a
	x	y	z		
Controls > left MTLE+HS					
Peak 1: left hippocampus	-18	-15	-18	2.84	.004
Peak 2: left hippocampus	-30	-33	-9	2.39	.012
Left MTLE+HS > controls					
Peak 3: right hippocampus	30	-27	-9	2.01	.027
Peak 4: right hippocampus	33	-12	-15	1.91	.028

Note.—MNI indicates the Montreal Neurological Institute coordinates system.

^a Small-volume correction for the bilateral hippocampal mask from FreeSurfer segmentation labels at $P < .05$.