Supplementary table 1 Subject demographic data. Data is based on available clinical reports.

ID	Age	Gender	Seizure type[a]	MRI[b]	Electrode type	Channel Number	Anatomical location of the SOZ[c]	Functional region identified by DCS	Day of the fist seizure	Surgical outcome[d]
P1	30	M	FAS	RMTS	Depth, strip	28	RAH	/	Day 5	I
P2	32	F	FAS	Normal	Depth, strip	56	LA, LAH, LPH, RA, RAH, RPH	/	Day 4	I*
P3	37	M	FIAS	LMTS	Depth, grid	54	LA, LAT	/	Day2	I
P4	15	F	FAS	TS	Depth	74	AMF, PMF	/	Day3	II
P5	18	F	FAS	LMTS	Depth	64	LPH, left uncus, left occipital-temporal	/	Day2	I
P6	35	F	FIAS	Left temporal grey matter heterotopia	Grid, strip	64	LST	/	Day3	I
P7	32	M	FIAS	RMTS	Grid, strip	48	Right temporal, LST, LLT, RAST, RPST	/	Day1	I
P8	53	F	FAS	Normal	Grid, strip	40	LAT, LST, RAT, RPT	/	Day1	II*
P9	36	F	FAS	Normal	Grid	66	Left parietal-temporal	Hand	Day3	I
P10	3	M	FAS	CM	Grid	64	Left frontal	Broca's area	Day2	I
P11	36	F	FIAS	RMTS	Grid, strip	72	AST, PST	Sensory	Day1	I
P12	49	F	FAS	Normal	Grid	54	Left cingulate gyrus	Hand, mouth, sensory	/	/
P13	36	F	FAS	Normal	Grid	120	Left temporal	Hand	/	/
C1	53	M	/	Right parietal LGG	Grid	32	/	Hand	/	/
C2	30	M	/	Left posterior frontal LGG	Grid	113	/	Hand	/	/
C3	40	F	/	Left frontal LGG	Grid	120	/	Hand	/	/
C4	42	F	/	Right frontal LGG	Grid	120	/	Sensory	/	/

C5	45	F	/	Right posterior frontal LGG	Grid	120	/	Hand	/	/

[a] FAS: focal aware seizure, previously known as simple focal seizure; FIAS: focal impaired awareness seizure, previously known as complex focal seizure.

[b] L/RMTS: left/right mesial temporal sclerosis; TS: tuberous sclerosis; CM: cavernous malformation; LGG: low-grade glioma.

[c] L/RA: left/right amygdala; L/RAH: left/right anterior hippocampus; L/RPH: left/right posterior hippocampus; L/RAT: left/right anterior temporal; L/RPT: left/right posterior temporal; A/PMF: anterior/posterior middle frontal gyrus; L/RST: left/right sub-temporal; A/PST: anterior/posterior sub-temporal.

[d] Surgical outcome is measured by Engel Classification [31]. Class I: free from disabling seizures. Class II: Rare disabling seizures (almost "seizure-free").

[*] P2 was completely seizure free after intracranial depth electrode monitoring without any additional surgery; resection surgery was not performed in this patient. P8 has been treated with responsive neural stimulation system. The patient has received a significant reduction of seizure frequency since the device implantation.