Supplementary Appendix

Early brain biomarkers of post-traumatic seizures: Initial report of the multicenter Epilepsy Bioinformatics Study for Anti-epileptogenic Therapy (EpiBioS4Rx) prospective study

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Table S1. Comparison of the predictive ability of the three models. Model 1 includes demographic data only (including the days post injury at which the MR session was held). Model 2 includes demographic and clinical (i.e., GCS total) data. Model 3 includes demographic, clinical, and MR component data. (Abbreviation: TP, true positives; FP, false positives; TN, true negatives; FN, false negatives; AUC, area under the curve; Acc, accuracy; Sens, sensitivity; Spec, specificity; Prec, precision.)

Model	TP	FP	TN	FN	AUC	Acc	Sens	Spec	Prec
M1: Demo	4	2	31	20	0.59	0.61	0.09	0.89	0.33
M2: Demo+Clin	6	4	31	16	0.64	0.65	0.64	0.89	0.60
M3: Demo+Clin+MR	16	4	31	3	0.89	0.87	0.73	0.89	0.80

Table S2. Binary logistic regression coefficients. (Abbreviations: b, regression coefficient; SE, standard error (robust); OR, odds ratio; LB, confidence interval lower bound; UB, confidence interval upper bound.)

						95% CI	
	b	SE	OR	z	p	LB	UB
(Intercept)	19.56	11.69	3.128e +8	1.67	0.09	-3.36	42.48
Age	0.05	0.04	1.06	1.43	0.15	-0.02	0.13
Day of MR	-0.09	0.08	0.92	-1.16	0.25	-0.24	0.06
Admission GCS $_{Tot}$	-0.28	0.12	0.76	-2.35	0.02	-0.51	-0.05
Sex (Female)	1.14	1.42	3.13	0.80	0.42	-1.65	3.93
Whole brain	0.00	0.00	1.00	-1.60	0.11	0.00	0.00
PC Ctx Parietal (LH)	1.04	0.74	2.84	1.41	0.16	-0.40	2.49
PC Ctx Occip (Bil)	-0.17	0.37	0.84	-0.46	0.64	-0.91	0.56
PC Ctx OrbitFrontal (RH)	0.46	0.50	1.58	0.92	0.36	-0.52	1.43
PC Ctx Central (RH)	0.86	0.75	2.37	1.14	0.25	-0.62	2.34
PC SbCtx All (Bil)	0.22	0.43	1.25	0.52	0.61	-0.62	1.07
PC Ctx IFG (Bil)	0.08	0.84	1.08	0.10	0.93	-1.56	1.72
PC SubCtx Hipp (Bil)	-1.12	0.67	0.33	-1.68	0.09	-2.42	0.19
PC Ctx Temporal (RH)	-0.01	0.35	0.99	-0.02	0.99	-0.70	0.68
PC Ctx Fronto-Temporal (LH)	1.57	0.83	4.78	1.88	0.06	-0.07	3.20
PC SbCtx Putamen (Bil)	-0.61	0.44	0.54	-1.38	0.17	-1.47	0.25
PC Ctx Cingul (RH)	-0.43	0.55	0.65	-0.78	0.44	-1.50	0.65
PC Ctx Tmp Pole (LH)	-1.09	0.50	0.34	-2.17	0.03	-2.07	-0.11
PC SbCtx Amygdala (Bil)	0.11	0.51	1.11	0.21	0.83	-0.89	1.10
PC Ctx FrPole (LH)	-1.48	0.60	0.23	-2.47	0.01	-2.65	-0.31
PC SbCtx BrainStem	0.53	0.34	1.69	1.53	0.13	-0.15	1.20
PC Ctx Insula (LH)	-0.89	0.78	0.41	-1.15	0.25	-2.42	0.63

PC Ctx TempPole (RH)	-0.12	0.39	0.89	-0.30	0.77	-0.88	0.64
PC Diff	-0.17	0.47	0.84	-0.37	0.71	-1.10	0.75

Note. Seizure_group_bin level 'Yes' coded as class 1.

Figure S1. CONSORT flowchart.

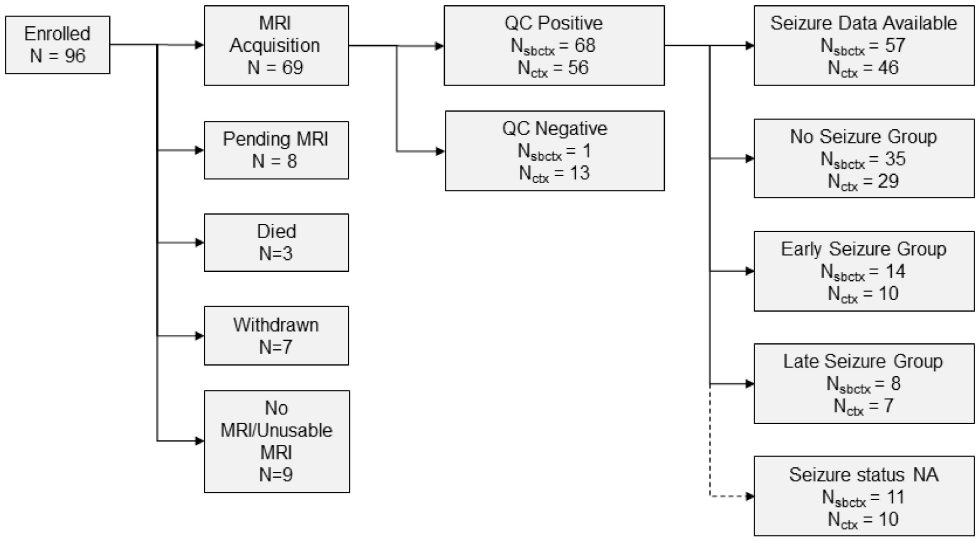
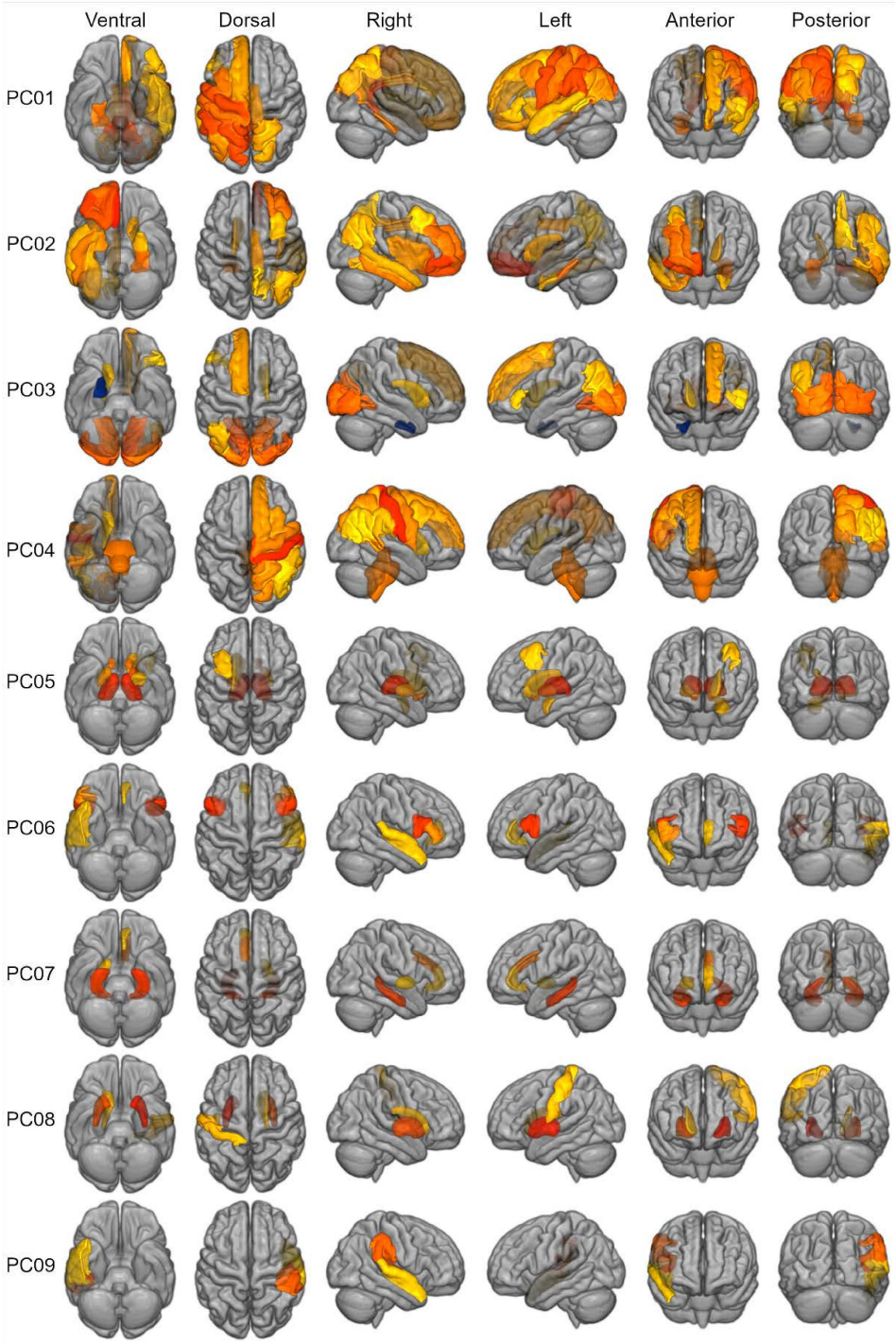
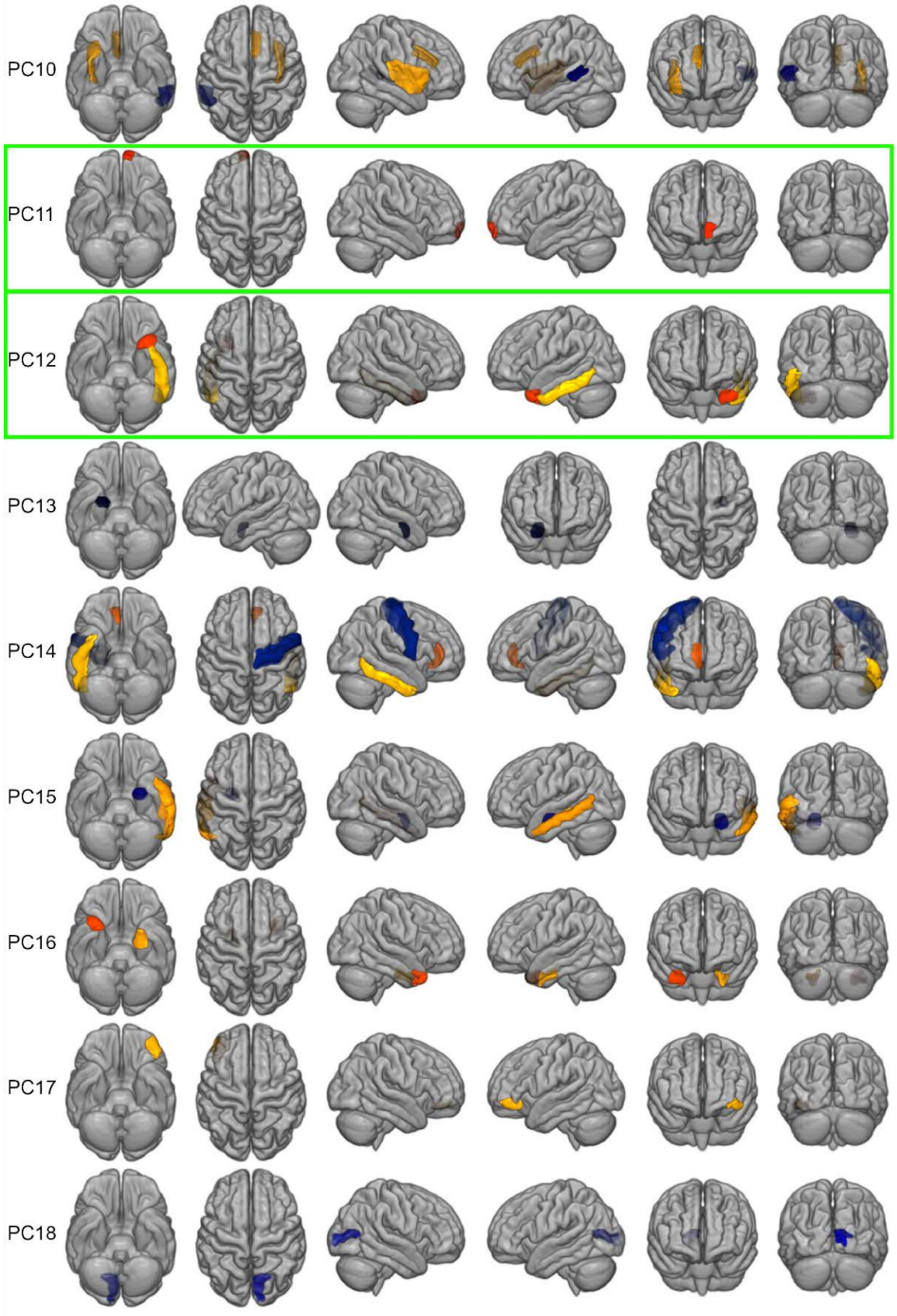


Figure S2. Depiction of component loadings for each brain ROI. Hot colors indicate positive loadings, cold color indicate negative loading. PC11 and PC12 are the components significantly related to seizure onset in the binary logistic regression described in the main text. (Abbrev: PC, principal component).




PC10
PC11
PC12
PC13
PC14
PC15
PC16
PC17
PC18