

**Supplementary Table 2.** Features that showed associations with symptoms before and after ECT in patients with schizophrenia

Findings
NAA/Cr changes in the left PFC (positive: age at onset, percentage of PANSS reduction, baseline PANSS total score, stimulus intensity of ECT; negative: duration of illness) <sup>4</sup>
NAA/Cr changes in the left thalamus (positive: age at onset; negative: duration of illness) <sup>4</sup>
GMV increase in the left DLPFC (positive: improvement in PANSS total score) <sup>8</sup>
Baseline GMV in the amygdala (negative: post-ECT GMV increase in amygdala) <sup>7</sup>
Volume increase in the right parahippocampal gyrus/hippocampus (positive: reduction in positive subscores on the PANSS) <sup>11</sup>
GMV increase in the right posterior insula (positive: PANSS total, positive, and general subscore reductions) <sup>9</sup>
Increase in right amygdala-hypothalamus connectivity (negative: baseline connectivity strength of the same region) <sup>7</sup>
FC between the left posterior insula and the left MOG (positive: PANSS general and negative subscore reductions) <sup>9</sup>
FC between the right posterior insula and left OFC (positive: PANSS negative subscore reductions) <sup>9</sup>
Lower classifier scores constituted from six functional networks at baseline predicted greater ECT and antipsychotics response (the DMN, the MTL, the language network, the corticostriatal network, the frontal-parietal network, and the cerebellum) (positive: changes in PANSS total, negative, and general subscores) <sup>17</sup>
↑ lt. HATA volumes in responders compared with nonresponders <sup>10</sup>
Increase in volume in CA4 subfield of the hippocampus (positive: PANSS general subscore reductions) <sup>10</sup>
FC between the left caudal hippocampus and right angular gyrus (positive: PANSS general subscore reductions) <sup>10</sup>
No significant association of FC change in the thalamic subfields and PANSS score changes <sup>15</sup>
rsFC between the rt. amygdala and lt. hippocampus as predictive features for ECT response <sup>16</sup>
Decrease in FC between amygdala and hippocampus (positive: percentage reduction in PANSS total scores) <sup>16</sup>
Selected 10 features (GMV, WM) of the final predictive model which included the baseline measures of the right insula and the left IFG (associations with treatment response measured by changes in PANSS total scores) <sup>12</sup>

ECT: electroconvulsive therapy, NAA/Cr: N-acetylaspartate/creatinine, PFC: prefrontal cortex, PANSS: Positive and Negative Symptom scale, GMV: gray matter volume, DLPFC: dorsolateral prefrontal cortex, FC: functional connectivity, MOG: middle occipital gyrus, OFC: orbitofrontal cortex, DMN: default mode network, MTL: medial temporal lobe, HATA: hippocampus-amygdala transition area, CA4: cornu ammonis 4, rsFC: resting-state functional connectivity, rt.: right, lt.: left, WM: white matter, IFG: inferior frontal gyrus