**Supplementary materials:**

Table 2. Epilepsy and healthy group FC comparison results (both cluster and connection thresholds: p < 0.05, FDR-corrected).

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER, ROIs | | F/T value | p value |
| **Cluster 1** | | 20.94 | 0.000001 |
| Hippocampus (L) | Hippocampus (R) | -6.35 | 0.000000 |
| pPaHC (L) | Amygdala (R) | -5.77 | 0.000003 |
| pPaHC (L) | Hippocampus (R) | -5.12 | 0.000016 |
| Hippocampus (L) | Amygdala (R) | -4.85 | 0.000044 |
| Amygdala (R) | Amygdala (L) | -3.26 | 0.003027 |
| Hippocampus (R) | Amygdala (L) | -3.03 | 0.007201 |
| Hippocampus (R) | Amygdala (R) | -2.91 | 0.008494 |
| pPaHC (L) | Amygdala (L) | -2.07 | 0.042548 |
| pPaHC (L) | Hippocampus (L) | -2.07 | 0.042548 |
| **Cluster 2** | | 16.66 | 0.000005 |
| MPFC | Hippocampus (L) | -4.64 | 0.000191 |
| MPFC | Hippocampus (R) | -4.25 | 0.000255 |
| MPFC | Amygdala (L) | -4.24 | 0.000255 |
| MPFC | pPaJC (L) | -3.51 | 0.002126 |
| MPFC | Amygdala (R) | -3.32 | 0.003047 |
| pPaHC (R) | pPaHC (L) | -3.35 | 0.013693 |
| pPaHC (R) | Hippocampus (R) | -2.84 | 0.030427 |
| aPaHC (R) | pPaHC (L) | -3.00 | 0.039447 |
| pPaHC (R) | Amygdala (R) | -2.48 | 0.039918 |
| pPaHC (R) | Hippocampus (L) | -2.17 | 0.052307 |
| **Cluster 3** | | 8.84 | 0.000866 |
| Thalamus (R) | Hippocampus (L) | -3.85 | 0.002678 |
| Thalamus (R) | Amygdala (R) | -3.65 | 0.002678 |
| Thalamus (R) | Amygdala (L) | -3.46 | 0.002678 |
| Thalamus (R) | pPaHC (L) | -3.44 | 0.002678 |
| Thalamus (L) | Amygdala (L) | -3.74 | 0.004120 |
| Thalamus (R) | Hippocampus (R) | -3.09 | 0.005962 |
| Thalamus (L) | Amygdala (R) | -3.26 | 0.008781 |
| Thalamus (L) | Hippocampus (L) | -3.14 | 0.008781 |
| Thalamus (L) | Hippocampus (R) | -2.70 | 0.019059 |
| Thalamus (L) | pPaHC (L) | -2.43 | 0.029754 |
| **Cluster 4** | | 7.17 | 0.014294 |
| Thalamus (R) | Thalamus (L) | -2.68 | 0.015882 |

Table 3. Focal epilepsy and healthy group FC comparison results(both cluster and connection thresholds: p<0.05, FDR-corrected).

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER, ROIs | | F/T value | p value |
| **Cluster 1** | | F=20.91 | 0.000001 |
| Hippocampus (L) | Hippocampus (R) | -6.19 | 0.000001 |
| Amygdala (R) | pPaHC (L) | -5.40 | 0.000015 |
| pPaHC (L) | Hippocampus (R) | -4.94 | 0.000039 |
| Amygdala (R) | Hippocampus (L) | -4.77 | 0.000072 |
| Amygdala (L) | Hippocampus (R) | -2.97 | 0.008950 |
| Amygdala (R) | Amygdala (L) | -3.06 | 0.011491 |
| Amygdala (R) | Hippocampus (R) | -2.34 | 0.033139 |
| **Cluster 2** | | F=14.99 | 0.000021 |
| MPFC | Hippocampus (L) | -4.31 | 0.000699 |
| MPFC | Amygdala (L) | -3.86 | 0.001232 |
| MPFC | Hippocampus (R) | -3.80 | 0.001232 |
| pPaHC (R) | pPaHC (L) | -4.13 | 0.001288 |
| MPFC | pPaHC (L) | -3.24 | 0.005048 |
| MPFC | Amygdala (R) | -2.69 | 0.017435 |
| pPaHC (R) | pPaHC (L) | -3.17 | 0.024866 |
| pPaHC (R) | Hippocampus (R) | -2.59 | 0.041331 |
| **Cluster 3** | | F=6.41 | 0.006422 |
| Thalamus (R) | Hippocampus (L) | -3.49 | 0.007348 |
| Thalamus (R) | Amygdala (L) | -3.35 | 0.007348 |
| Thalamus (R) | pPaHC (L) | -3.20 | 0.007754 |
| Thalamus (R) | Amygdala (R) | -2.94 | 0.011904 |
| Thalamus (R) | Hippocampus (R) | -2.61 | 0.019577 |
| Thalamus (L) | Amygdala (L) | -3.03 | 0.036528 |
| Thalamus (L) | Hippocampus (L) | -2.56 | 0.036528 |
| Thalamus (L) | Amygdala (R) | -2.52 | 0.036528 |
| **Cluster 4** | | F=7.26 | 0.014041 |
| Thalamus (R) | Thalamus (R) | -2.70 | 0.018722 |
| **Cluster 5** | | F=3.46 | 0.046493 |
| MPFC | pPaHC (R) | -2.65 | 0.017435 |
| MPFC | aPaHC (L) | -2.22 | 0.043887 |

Table 4. Generalized epilepsy and healthy group FC comparison results (both cluster and connection thresholds: p<0.05, FDR-corrected).

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER, ROIs | | F/T value | p value |
| **Cluster 1** | | 8.37 | 0.007129 |
| Thalamus (L) | Amygdala (L) | -3.72 | 0.005977 |
| Thalamus (L) | Amygdala (R) | -3.55 | 0.005977 |
| Thalamus (R) | Amygdala (R) | -3.60 | 0.010369 |
| **Cluster 2** | | 9.61 | 0.011822 |
| Hippocampus (L) | Hippocampus (R) | -3.10 | 0.019704 |
| **Cluster 3** | | 5.67 | 0.015547 |
| Amygdala (R) | Hippocampus (R) | -2.92 | 0.012607 |
| Amygdala (R) | Hippocampus (L) | -2.66 | 0.020080 |
| MPFC | Hippocampus (R) | -3.13 | 0.022019 |
| MPFC | Hippocampus (L) | -2.64 | 0.041699 |
| **Cluster 4** | | 4.80 | 0.022571 |
| Thalamus (L) | Hippocampus (L) | -3.11 | 0.012924 |
| Thalamus (R) | Hippocampus (R) | -2.85 | 0.027679 |
| Thalamus (R) | Hippocampus (L) | -2.81 | 0.027679 |
| **Cluster 5** | | 4.20 | 0.028743 |
| pPaHC (L) | Amygdala (R) | -3.43 | 0.016548 |
| MPFC | Amygdala (R) | -3.06 | 0.022019 |

Table 5. Temporal epilepsy and healthy group comparison results (both cluster and connection thresholds: p<0.05, FDR-corrected).

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER, ROIs | | F/T value | p value |
| **Cluster 1** | | 7.62 | 0.037218 |
| Hippocampus (R) | Hippocampus (L) | -4.02 | 0.002878 |
| pPaHC (L) | Hippocampus (R) | -2.81 | 0.040138 |
| pPaHC (L) | Amygdala (R) | -2.58 | 0.046696 |

Table 6. Extratemporal epilepsy and healthy group FC comparison results (both cluster and connection thresholds: p<0.05, FDR-corrected).

|  |  |  |  |
| --- | --- | --- | --- |
| CLUSTER, ROIs | | F/T value | p value |
| **Cluster 1** | | 17.13 | 0.000020 |
| Hippocampus (L) | Hippocampus (R) | -5.77 | 0.000007 |
| Amygdala (R) | pPaHC (L) | -5.64 | -0.000011 |
| Amygdala (R) | Hippocampus (L) | -5.19 | 0.000025 |
| pPaHC (L) | Hippocampus (R) | -4.61 | 0.000171 |
| Amygdala (L) | Hippocampus (R) | -2.90 | 0.017863 |
| Amygdala (R) | Amygdala (L) | -2.73 | 0.018318 |
| **Cluster 2** | | 14.26 | 0.000053 |
| MPFC | Hippocampus (L) | -4.39 | 0.000696 |
| MPFC | Amygdala (L) | -4.15 | 0.000743 |
| MPFC | Hippocampus (R) | -3.51 | 0.003520 |
| MPFC | Amygdala (R) | -3.07 | 0.009163 |
| MPFC | pPaHC (L) | -2.73 | 0.014997 |
| pPaHC (R) | pPaHC (L) | -3.35 | 0.016531 |
| aPaHC (R) | pPaHC (L) | -3.11 | 0.032485 |
| aPaHC (L) | Hippocampus (R) | -3.08 | 0.035703 |
| aPaHC (L) | Amygdala (R) | -2.58 | 0.044223 |
| pPaHC (R) | Hippocampus (R) | -2.34 | 0.048323 |
| pPaHC (R) | Hippocampus (L) | -2.34 | 0.048323 |
| **Cluster 3** | | 6.29 | 0.008052 |
| Thalamus (R) | Hippocampus (L) | -3.32 | 0.008035 |
| Thalamus (R) | pPaHC (L) | -3.27 | 0.008035 |
| Thalamus (R) | Amygdala (L) | -3.22 | 0.008035 |
| Thalamus (R) | Amygdala (R) | -2.75 | 0.021770 |
| Thalamus (R) | Hippocampus (R) | -2.63 | 0.023403 |
| Thalamus (L) | Amygdala (L) | -2.82 | 0.033467 |
| Thalamus (L) | Hippocampus (R) | -2.59 | 0.033467 |
| Thalamus (L) | Hippocampus (L) | -2.58 | 0.033467 |
| Thalamus (L) | Amygdala (R) | -2.45 | 0.036293 |
| Thalamus (L) | pPaHC (L) | -2.25 | 0.048923 |
| **Cluster 4** | | 5.42 | 0.011913 |
| pPaHC (R) | MPFC | -2.82 | 0.035496 |
| aPaHC (L) | MPFC | -2.59 | 0.044223 |