**Supplementary Material 1:**

**The Method of mapping AAL atlas to macroscopic networks**

Due to the advancements in current neuroimaging and analysis techniques, the human brain has been divided into numerous macroscopic networks. However, there exists some degree of variation in the spatial topology and naming conventions across different studies1. Particularly when categorizing brain regions of brain atlases into different macroscopic networks, the results from various studies often show inconsistencies.

Based on Yeo's 7-network model and in conjunction with previous research and anatomical locations, we segmented the AAL-116 brain atlas into nine networks without disrupting each ROI and ensuring no overlap between ROIs2,3.

We initially aligned each Region of Interest (ROI) from the AAL-116 brain template with the Yeo-7 network template. Subsequently, we examined the proportion of the seven components of the Yeo network within each ROI and categorized each ROI into the network with the highest overlapping proportion, adhering to the principle of “winner-takes-all”.

Subsequently, we made adjustments based on previous research and anatomical considerations. The primary focus of these adjustments involved reclassifying regions that were clearly misclassified and addressing areas that could not be categorized due to minimal overlap between the AAL and Yeo templates.

The following literature references were consulted during the adjustment phase following the initial step, and the table below presents the final number of ROIs for each network.

Furthermore, we have provided an Excel spreadsheet that presents the correspondence between each specific ROI and the nine networks for future reference by researchers (see Supplementary Material 2).

The determination of these anatomical locations was confirmed by two neurosurgeons with over five years of professional experience.

The Cerebellar Network (CereN) and the Basal Ganglia Network (BGN) were determined based on their anatomical locations. The CereN comprises 26 ROIs, while the BGN consists of 8 ROIs.

Based on the anatomical locations of the DMN within Yeo's 7-network model2 and the core nodes of the DMN provided by Uddin et al1., in conjunction with previous researches on the default network4-6, a total of 18 nodes were identified.

The core regions of the SMN are located within the motor and somatosensory cortices1. Combining prior research and the anatomical positions within the Yeo network, we have identified a total of 14 nodes within the SMN2,7.

The core region of the VN lies within the occipital lobe1. Combining the researches conducted by Smith et al8. and Weiner et al9., along with the anatomical positions within the Yeo network for the VN, we have identified a total of 14 nodes.

In conjunction with the study conducted by Jimenez et al10., we have identified six nodes within the VAN.

Drawing upon the studies conducted by Uddin et al1., Vossel et al11., and Jimenez et al10., we have identified four nodes within the DAN.

Combining Catani et al12.'s comprehensive review of the limbic system and the anatomical positions within Yeo's limbic network, we have identified 16 nodes within the salience network.

Drawing upon the research conducted by Oliver et al5., anatomical observations within the Yeo network, and insights provided by Uddin et al1., we have ultimately identified 10 nodes within the FPN.

Network name, abbreviation, and number of nodes

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| --- | --- | --- |
| Network name | Abbreviations | Number of Nodes |
| Visual Network | VN | 14 |
| Sensorimotor Network | SMN | 14 |
| Dorsal Attention Network | DAN | 4 |
| Ventral Attention Network | VAN | 6 |
| Limbic Network | LN | 16 |
| Fronto-parietal Network | FPN | 10 |
| Default Mode Network | DMN | 18 |
| Basal Ganglia Network | BGN | 8 |
| Cerebellar Network | CereN | 26 |

**Reference**

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