Supplementary table 1

Atlas – ROIs legends [32,33]

- Atlas: FP r = Frontal Pole Right
- FP l = Frontal Pole Left
- IC r = Insular Cortex Right
- IC l = Insular Cortex Left
- SFG r = Superior Frontal Gyrus Right
- SFG l = Superior Frontal Gyrus Left
- MidFG r = Middle Frontal Gyrus Right
- MidFG l = Middle Frontal Gyrus Left
- IFG tri r = Inferior Frontal Gyrus, pars triangularis Right
- IFG tri l = Inferior Frontal Gyrus, pars triangularis Left
- IFG oper r = Inferior Frontal Gyrus, pars opercularis Right
- IFG oper l = Inferior Frontal Gyrus, pars opercularis Left
- PreCG r = Precentral Gyrus Right
- PreCG l = Precentral Gyrus Left
- TP r = Temporal Pole Right
- TP l = Temporal Pole Left
- aSTG r = Superior Temporal Gyrus, anterior division Right
- aSTG l = Superior Temporal Gyrus, anterior division Left
- pSTG r = Superior Temporal Gyrus, posterior division Right
- pSTG l = Superior Temporal Gyrus, posterior division Left
- aMTG r = Middle Temporal Gyrus, anterior division Right
- aMTG l = Middle Temporal Gyrus, anterior division Left
- pMTG r = Middle Temporal Gyrus, posterior division Right
- pMTG l = Middle Temporal Gyrus, posterior division Left
- toMTG r = Middle Temporal Gyrus, temporooccipital part Right
- toMTG l = Middle Temporal Gyrus, temporooccipital part Left
- aITG r = Inferior Temporal Gyrus, anterior division Right
- aITG l = Inferior Temporal Gyrus, anterior division Left
- pITG r = Inferior Temporal Gyrus, posterior division Right
- pITG l = Inferior Temporal Gyrus, posterior division Left
- toITG r = Inferior Temporal Gyrus, temporooccipital part Right
- toITG l = Inferior Temporal Gyrus, temporooccipital part Left
- PostCG r = Postcentral Gyrus Right
- PostCG l = Postcentral Gyrus Left
- SPL r = Superior Parietal Lobule Right
- SPL l = Superior Parietal Lobule Left
- aSMG r = Supramarginal Gyrus, anterior division Right
- aSMG l = Supramarginal Gyrus, anterior division Left
- pSMG r = Supramarginal Gyrus, posterior division Right
- pSMG l = Supramarginal Gyrus, posterior division Left
- AG r = Angular Gyrus Right
- AG l = Angular Gyrus Left
- sLOC r = Lateral Occipital Cortex, superior division Right
- sLOC l = Lateral Occipital Cortex, superior division Left
• iLOC r = Lateral Occipital Cortex, inferior division Right
• iLOC l = Lateral Occipital Cortex, inferior division Left
• ICC r = Intracalcarine Cortex Right
• ICC l = Intracalcarine Cortex Left
• MedFC = Frontal Medial Cortex
• SMA r = Juxtaapositional Lobule Cortex -formerly Supplementary Motor Cortex- Right
• SMA l = Juxtaapositional Lobule Cortex -formerly Supplementary Motor Cortex- Left
• SubCalC = Subcallosal Cortex
• PaCiG r = Paracingulate Gyrus Right
• PaCiG l = Paracingulate Gyrus Left
• AC = Cingulate Gyrus, anterior division
• PC = Cingulate Gyrus, posterior division
• Precuneus = Precuneous Cortex
• Cuneal r = Cuneal Cortex Right
• Cuneal l = Cuneal Cortex Left
• FOrb r = Frontal Orbital Cortex Right
• FOrb l = Frontal Orbital Cortex Left
• aPaHC r = Parahippocampal Gyrus, anterior division Right
• aPaHC l = Parahippocampal Gyrus, anterior division Left
• pPaHC r = Parahippocampal Gyrus, posterior division Right
• pPaHC l = Parahippocampal Gyrus, posterior division Left
• LG r = Lingual Gyrus Right
• LG l = Lingual Gyrus Left
• aTFusC r = Temporal Fusiform Cortex, anterior division Right
• aTFusC l = Temporal Fusiform Cortex, anterior division Left
• pTFusC r = Temporal Fusiform Cortex, posterior division Right
• pTFusC l = Temporal Fusiform Cortex, posterior division Left
• TOFusC r = Temporal Occipital Fusiform Cortex Right
• TOFusC l = Temporal Occipital Fusiform Cortex Left
• OFusG r = Occipital Fusiform Gyrus Right
• OFusG l = Occipital Fusiform Gyrus Left
• FO r = Frontal Operculum Cortex Right
• FO l = Frontal Operculum Cortex Left
• CO r = Central Opercular Cortex Right
• CO l = Central Opercular Cortex Left
• PO r = Parietal Operculum Cortex Right
• PO l = Parietal Operculum Cortex Left
• PP r = Planum Polare Right
• PP l = Planum Polare Left
• HG r = Heschl's Gyrus Right
• HG l = Heschl's Gyrus Left
• PT r = Planum Temporale Right
• PT l = Planum Temporale Left
• SCC r = Supparalcarine Cortex Right
• SCC l = Supparalcarine Cortex Left
• OP r = Occipital Pole Right
• OP l = Occipital Pole Left
• Thalamus r = Thalamus Right
• Thalamus l = Thalamus Left
• Caudate r = Caudate Right
• Caudate l = Caudate Left
• Putamen r = Putamen Right
• Putamen l = Putamen Left
• Pallidum r = Pallidum Right
• Pallidum l = Pallidum Left
• Hippocampus r = Hippocampus Right
• Hippocampus l = Hippocampus Left
• Amygdala r = Amygdala Right
• Amygdala l = Amygdala Left
• Accumbens r = Accumbens Right
• Accumbens l = Accumbens Left
• Brain-Stem = Brain Stem
• Cereb1 l = Cerebelum Crus1 Left
• Cereb1 r = Cerebelum Crus1 Right
• Cereb2 l = Cerebelum Crus2 Left
• Cereb2 r = Cerebelum Crus2 Right
• Cereb3 l = Cerebelum 3 Left
• Cereb3 r = Cerebelum 3 Right
• Cereb45 l = Cerebelum 4 5 Left
• Cereb45 r = Cerebelum 4 5 Right
• Cereb6 l = Cerebelum 6 Left
• Cereb6 r = Cerebelum 6 Right
• Cereb7 l = Cerebelum 7b Left
• Cereb7 r = Cerebelum 7b Right
• Cereb8 l = Cerebelum 8 Left
• Cereb8 r = Cerebelum 8 Right
• Cereb9 l = Cerebelum 9 Left
• Cereb9 r = Cerebelum 9 Right
• Cereb10 l = Cerebelum 10 Left
• Cereb10 r = Cerebelum 10 Right
• Ver12 = Vermis 1 2
• Ver3 = Vermis 3
• Ver45 = Vermis 4 5
• Ver6 = Vermis 6
• Ver7 = Vermis 7
• Ver8 = Vermis 8
• Ver9 = Vermis 9
• Ver10 = Vermis 10
| Subject | Age | Sex | Number of valid scans | Number of invalid scans | Max motion (mm) | Mean motion (mm) | Maximum global signal change (std) | Mean global signal change (std) | BOLD signal after denoising (std) | Global correlation (Pre-CEA) | Global correlation (Pre-CEA) |
|---------|-----|-----|-----------------------|------------------------|-----------------|-----------------|----------------------------------|-------------------------------|---------------------------------|-----------------------------|-----------------------------|
| 1       | 76  | Male| 611                   | 29                     | 2.37216         | 0.180842        | 9.149505                        | 0.856914                      | 0.464154                        | 0.007372                    | 0.015467                    |
| 2       | 72  | Female| 626                | 14                     | 3.113677        | 0.1581          | 5.702185                        | 0.858364                      | 0.525145                        | 0.016688                    | 0.024355                    |
| 3       | 65  | Male| 623                   | 17                     | 1.81664         | 0.158935        | 9.325184                        | 0.791786                      | 0.446014                        | 0.019116                    | 0.016557                    |
| 4       | 83  | Female| 558                | 82                     | 4.882054        | 0.287191        | 5.527984                        | 0.813036                      | 0.545063                        | 0.018117                    | 0.015489                    |
| 5       | 76  | Female| 613                | 27                     | 3.653743        | 0.198421        | 4.078381                        | 0.812803                      | 0.527557                        | 0.009692                    | 0.008462                    |
| 6       | 76  | Female| 592                | 48                     | 2.098371        | 0.243444        | 11.473914                       | 0.866751                      | 0.522655                        | 0.010613                    | 0.0115                      |
| 7       | 75  | Male| 548                   | 92                     | 3.11209         | 0.246553        | 8.039364                        | 0.839988                      | 0.564153                        | 0.018452                    | 0.011537                    |
| 8       | 71  | Male| 638                   | 2                      | 1.330331        | 0.137933        | 3.142281                        | 0.789739                      | 0.450972                        | 0.016837                    | 0.007309                    |
| 9       | 72  | Female| 614                | 26                     | 3.221927        | 0.196437        | 7.152392                        | 0.889551                      | 0.503291                        | 0.006794                    | 0.012755                    |
| 10      | 77  | Male| 572                   | 68                     | 3.261153        | 0.211337        | 11.523178                       | 0.823741                      | 0.51082                         | 0.011899                    | 0.025415                    |
| 11      | 73  | Male| 568                   | 72                     | 9.953674        | 0.363952        | 6.111445                        | 0.79778                       | 0.533049                        | 0.017586                    | 0.014453                    |
| 12      | 80  | Male| 597                   | 43                     | 1.796954        | 0.252225        | 5.108727                        | 0.830967                      | 0.531292                        | 0.011559                    | 0.011462                    |
| 13      | 61  | Female| 599                | 41                     | 1.70287         | 0.252648        | 5.287314                        | 0.857589                      | 0.568297                        | 0.019118                    | 0.021214                    |
| 14      | 66  | Male| 636                   | 4                      | 1.524617        | 0.184501        | 3.198237                        | 0.796792                      | 0.426874                        | 0.012658                    | 0.010497                    |
| 15      | 84  | Male| 622                   | 18                     | 1.486636        | 0.449961        | 3.425556                        | 0.768043                      | 0.537357                        | 0.017116                    | 0.013421                    |
| 16      | 81  | Male| 576                   | 64                     | 3.474708        | 0.143141        | 10.2644                         | 0.796964                      | 0.535611                        | 0.011609                    | 0.009441                    |
| 17      | 73  | Male| 615                   | 25                     | 3.428577        | 0.136713        | 5.291873                        | 0.844085                      | 0.538697                        | 0.014614                    | 0.014139                    |
| 18      | 70  | Male| 621                   | 19                     | 2.349323        | 0.199265        | 9.53037                         | 0.822858                      | 0.484479                        | 0.010894                    | 0.011838                    |
| 19      | 82  | Male| 587                   | 53                     | 3.96837         | 0.190688        | 12.216554                       | 0.798537                      | 0.466255                        | 0.009249                    | 0.008893                    |
| 20      | 76  | Male| 627                   | 13                     | 2.057372        | 0.170605        | 5.320923                        | 0.871514                      | 0.489848                        | 0.012121                    | 0.01072                     |

Supplementary table 2: Quality control data of the study population following fMRI preprocessing. BOLD: Blood oxygen level depended; std: standard deviations.