

Subject: job123456

Sex: Male

Age: 35.0

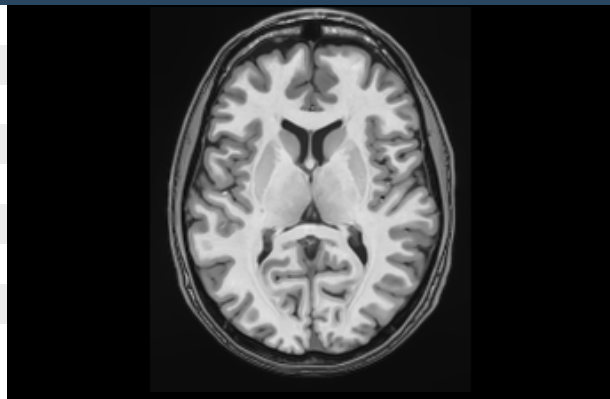
Report date: 14-Feb-2022

Image orientation: Neurological

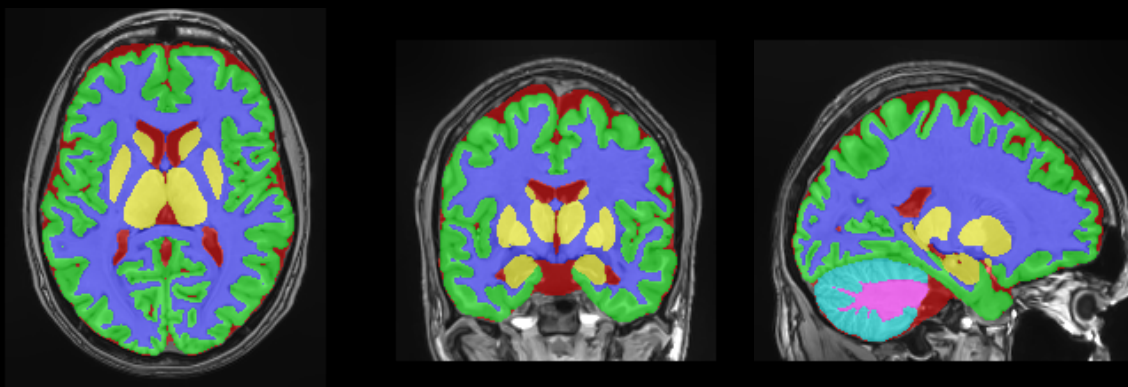
Scale factor: 0.88

SNR: 32.32

Quality control: A



Tissue segmentation



Tissue	Volume (cm^3 / %)	
White Matter (WM)	553.03 / 34.265	[31.670, 35.784]
Grey Matter (GM)	854.66 / 52.954	[51.837, 55.267]
Subcortical GM	53.38 / 3.307	[3.012, 3.474]
Cortical GM	668.01 / 41.389	[40.656, 43.873]
Cerebellar GM	133.27 / 8.257	[7.148, 8.916]
Cerebro Spinal Fluid (CSF)	186.10 / 11.531	[9.013, 14.206]
Brain (WM+GM)	1407.68 / 87.219	[84.551, 89.655]
Intracranial Cavity (IC)	1613.97 / 100.000	[100.000, 100.000]

All the volumes are presented in absolute value (measured in cm^3) and in relative value (measured in relation to the IC volume).

The quality control evaluates the input image quality after preprocessing. **A** = good, **B** = moderate (i.e., the output requires human verification) and **C** = bad (i.e., the output should not be used).

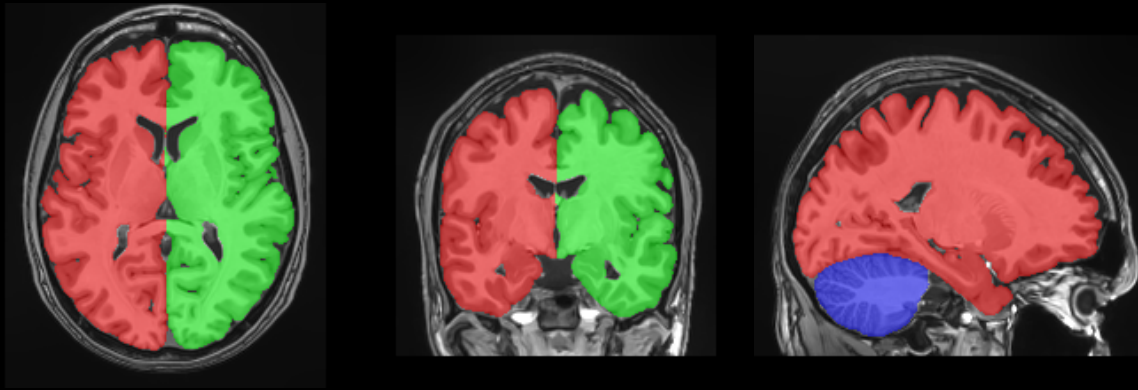
The Asymmetry Index is calculated as the difference between right and left volumes divided by their mean (in percent).

All the result images are located in the MNI space (neurological orientation).

Values between brackets show expected limits (95%) of normalized volume in function of sex and age for each measure for reference purpose. Values outside the limits are highlighted in red.

Pierrick Coupé, Boris Mansencal, Michaël Clément, Rémi Giraud, Baudoin Denis de Senneville, Vinh-Thong Ta, Vincent Lepetit, José V Manjon, *AssemblyNet: A large ensemble of CNNs for 3D whole brain MRI segmentation*, NeuroImage, Elsevier, 2020, 219, pp.117026 PDF

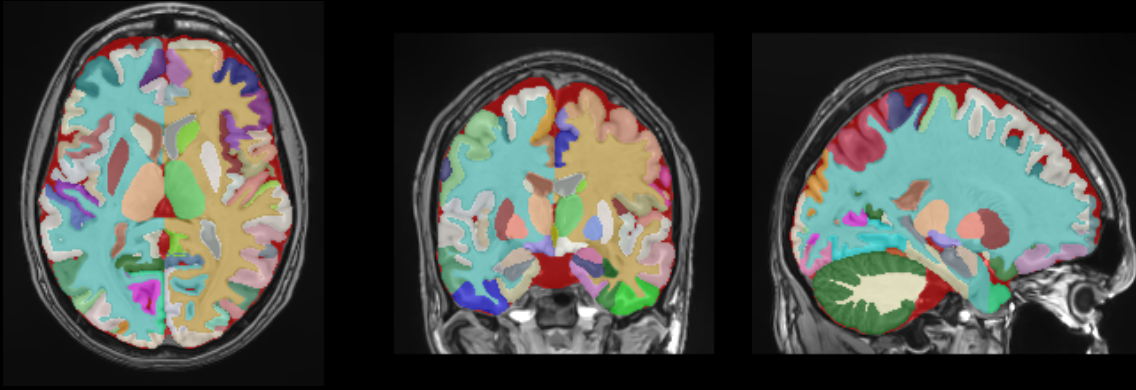
Macrostructure segmentation



Structure	Total (cm^3 / %)	Right (cm^3 / %)	Left (cm^3 / %)	Asymmetry (%)
Cerebrum	1244.19 / 77.089 [74.615, 79.890]	620.03 / 38.416 [37.318, 40.007]	624.17 / 38.673 [37.274, 39.925]	-0.6655 [-1.173, 1.353]
Cerebrum WM	522.80 / 32.392 [29.835, 33.940]	259.17 / 16.058 [14.893, 16.960]	263.63 / 16.334 [14.926, 17.009]	-1.7040 [-2.135, 1.437]
Cerebrum GM	721.39 / 44.697 [43.904, 47.115]	360.85 / 22.358 [21.971, 23.612]	360.54 / 22.339 [21.900, 23.556]	0.0871 [-1.136, 1.863]
Cerebellum*	149.58 / 9.268 [8.019, 10.060]	74.56 / 4.620 [4.030, 5.069]	75.02 / 4.648 [3.983, 4.997]	-0.6080 [-1.955, 5.020]
Cerebellum WM	30.23 / 1.873 [1.586, 2.113]	15.12 / 0.937 [0.792, 1.070]	15.11 / 0.936 [0.790, 1.051]	0.0290 [-4.088, 5.930]
Cerebellum GM	119.35 / 7.395 [6.366, 8.009]	59.45 / 3.683 [3.217, 4.054]	59.91 / 3.712 [3.160, 3.975]	-0.7694 [-1.985, 5.367]
Vermis	13.91 / 0.862 [0.700, 0.941]			
Brainstem	20.19 / 1.251 [1.143, 1.458]			

* Cerebellum volumes do not include vermis volume.

Structure segmentation



Subcortical	Total (cm^3 / %)	Right (cm^3 / %)	Left (cm^3 / %)	Asymmetry (%)
Accumbens	1.12 / 0.070 [0.058, 0.084]	0.52 / 0.032 [0.026, 0.041]	0.60 / 0.037 [0.031, 0.045]	-14.3750 [-32.497, 4.735]
Amygdala	2.55 / 0.158 [0.140, 0.178]	1.26 / 0.078 [0.071, 0.091]	1.29 / 0.080 [0.067, 0.087]	-2.2719 [-5.479, 14.787]
Basal forebrain	0.78 / 0.049 [0.034, 0.057]	0.36 / 0.022 [0.014, 0.026]	0.43 / 0.027 [0.017, 0.031]	-18.7919 [-47.918, 9.559]
Caudate	6.49 / 0.402 [0.372, 0.510]	3.35 / 0.207 [0.189, 0.258]	3.14 / 0.195 [0.182, 0.253]	6.3295 [-2.713, 10.066]
Hippocampus	9.03 / 0.560 [0.441, 0.582]	4.57 / 0.283 [0.221, 0.294]	4.46 / 0.276 [0.217, 0.290]	2.5469 [-5.862, 11.696]
Pallidum	4.03 / 0.250 [0.200, 0.255]	1.99 / 0.123 [0.097, 0.126]	2.04 / 0.126 [0.102, 0.130]	-2.1786 [-11.066, 1.314]
Putamen	10.52 / 0.652 [0.570, 0.726]	5.10 / 0.316 [0.283, 0.360]	5.41 / 0.335 [0.285, 0.368]	-5.8603 [-6.673, 2.821]
Thalamus	18.85 / 1.168 [1.063, 1.236]	9.40 / 0.582 [0.529, 0.616]	9.45 / 0.586 [0.532, 0.623]	-0.5867 [-4.852, 3.000]
Ventral DC	11.35 / 0.703 [0.638, 0.775]	5.60 / 0.347 [0.314, 0.383]	5.75 / 0.356 [0.323, 0.393]	-2.6151 [-6.509, 0.722]

Cortical	Total (cm ³ / %)	Right (cm ³ / %)	Left (cm ³ / %)	Asymmetry (%)
Frontal lobe	216.44 / 13.411 [13.009, 14.859]	106.67 / 6.609 [6.522, 7.495]	109.77 / 6.802 [6.447, 7.382]	-2.8708 [-2.754, 5.397]
Frontal pole	7.38 / 0.457 [0.397, 0.563]	3.87 / 0.240 [0.203, 0.294]	3.50 / 0.217 [0.188, 0.282]	10.0428 [-14.498, 27.168]
Gyrus rectus	4.54 / 0.281 [0.253, 0.397]	2.41 / 0.149 [0.127, 0.206]	2.13 / 0.132 [0.112, 0.206]	12.6112 [-22.037, 42.825]
Opercular inf. frontal gyrus	6.85 / 0.424 [0.395, 0.664]	2.79 / 0.173 [0.182, 0.362]	4.06 / 0.252 [0.178, 0.342]	-37.1604 [-41.202, 49.470]
Orbital inf. frontal gyrus	3.63 / 0.225 [0.164, 0.304]	2.18 / 0.135 [0.072, 0.159]	1.45 / 0.090 [0.073, 0.164]	40.4065 [-58.375, 52.891]
Triangular inf. frontal gyrus	8.86 / 0.549 [0.398, 0.684]	3.63 / 0.225 [0.183, 0.350]	5.23 / 0.324 [0.181, 0.364]	-36.0448 [-43.910, 38.922]
Medial frontal cortex	4.31 / 0.267 [0.228, 0.353]	2.60 / 0.161 [0.106, 0.194]	1.71 / 0.106 [0.106, 0.186]	41.5171 [-36.763, 40.246]
Middle frontal gyrus	47.13 / 2.920 [2.686, 3.501]	22.86 / 1.416 [1.317, 1.793]	24.27 / 1.504 [1.327, 1.781]	-5.9872 [-13.009, 15.241]
Anterior orbital gyrus	5.60 / 0.347 [0.236, 0.401]	2.87 / 0.178 [0.116, 0.217]	2.73 / 0.169 [0.103, 0.206]	5.2038 [-33.321, 49.004]
Lateral orbital gyrus	6.58 / 0.408 [0.285, 0.460]	3.26 / 0.202 [0.128, 0.240]	3.32 / 0.206 [0.134, 0.247]	-1.6538 [-45.059, 36.116]
Medial orbital gyrus	9.76 / 0.605 [0.557, 0.750]	4.68 / 0.290 [0.262, 0.377]	5.08 / 0.315 [0.276, 0.393]	-8.2374 [-25.887, 16.999]
Posterior orbital gyrus	7.98 / 0.495 [0.374, 0.564]	4.42 / 0.274 [0.175, 0.285]	3.56 / 0.220 [0.182, 0.294]	21.7090 [-30.122, 25.043]
Precentral gyrus	32.33 / 2.003 [1.780, 2.194]	16.67 / 1.033 [0.874, 1.124]	15.66 / 0.970 [0.878, 1.112]	6.2284 [-12.677, 13.599]
Precentral gyrus medial segment	5.86 / 0.363 [0.334, 0.497]	2.58 / 0.160 [0.157, 0.251]	3.28 / 0.203 [0.163, 0.264]	-23.6475 [-33.097, 25.816]
Subcallosal area	2.39 / 0.148 [0.109, 0.236]	1.21 / 0.075 [0.054, 0.119]	1.18 / 0.073 [0.054, 0.119]	3.0814 [-17.989, 19.498]
Sup. frontal gyrus	37.83 / 2.344 [1.948, 2.609]	18.94 / 1.173 [0.945, 1.326]	18.89 / 1.171 [0.953, 1.331]	0.2367 [-18.432, 16.636]
Sup. frontal gyrus medial segment	15.41 / 0.954 [0.832, 1.193]	7.19 / 0.446 [0.404, 0.659]	8.21 / 0.509 [0.366, 0.594]	-13.2209 [-23.184, 44.635]
Supplementary motor cortex	10.00 / 0.620 [0.659, 0.947]	4.48 / 0.278 [0.310, 0.485]	5.52 / 0.342 [0.312, 0.491]	-20.8494 [-30.014, 26.518]

Temporal lobe	141.31 / 8.755	70.79 / 4.386	70.52 / 4.369	0.3802
	[7.570, 8.896]	[3.774, 4.509]	[3.752, 4.446]	[-5.291, 8.107]
Fusiform gyrus	18.10 / 1.121	9.38 / 0.581	8.72 / 0.540	7.3140
	[0.982, 1.403]	[0.484, 0.726]	[0.466, 0.705]	[-18.307, 26.084]
Planum polare	5.10 / 0.316	2.41 / 0.149	2.69 / 0.167	-11.1455
	[0.254, 0.367]	[0.121, 0.186]	[0.124, 0.193]	[-25.613, 23.365]
Planum temporale	5.42 / 0.336	2.10 / 0.130	3.32 / 0.206	-45.2616
	[0.226, 0.400]	[0.087, 0.189]	[0.123, 0.229]	[-71.355, 12.332]
Inf. temporal gyrus	30.90 / 1.915	15.79 / 0.978	15.11 / 0.936	4.3581
	[1.576, 2.121]	[0.755, 1.081]	[0.769, 1.101]	[-22.252, 18.123]
Middle temporal gyrus	35.50 / 2.200	19.42 / 1.203	16.08 / 0.996	18.8427
	[1.957, 2.515]	[0.977, 1.297]	[0.916, 1.261]	[-14.399, 22.113]
Sup. temporal gyrus	18.73 / 1.160	8.29 / 0.513	10.44 / 0.647	-23.0264
	[0.916, 1.259]	[0.430, 0.644]	[0.441, 0.661]	[-29.438, 23.854]
Transverse temporal gyrus	3.96 / 0.245	1.80 / 0.112	2.16 / 0.134	-17.9157
	[0.188, 0.300]	[0.082, 0.150]	[0.094, 0.163]	[-48.651, 22.277]
Temporal pole	23.60 / 1.462	11.60 / 0.719	11.99 / 0.743	-3.3033
	[1.145, 1.593]	[0.559, 0.807]	[0.570, 0.812]	[-15.798, 13.968]
Parietal lobe	128.75 / 7.977	65.25 / 4.043	63.50 / 3.934	2.7219
	[7.923, 9.185]	[3.925, 4.593]	[3.960, 4.632]	[-7.082, 4.810]
Angular gyrus	29.82 / 1.847	16.30 / 1.010	13.52 / 0.837	18.6775
	[1.320, 1.976]	[0.699, 1.078]	[0.575, 0.962]	[-11.000, 42.435]
Postcentral gyrus	25.57 / 1.584	11.87 / 0.735	13.70 / 0.849	-14.2911
	[1.481, 1.884]	[0.695, 0.922]	[0.753, 1.013]	[-27.860, 7.288]
Postcentral gyrus medial segment	2.25 / 0.139	1.27 / 0.079	0.98 / 0.061	25.4489
	[0.103, 0.205]	[0.046, 0.115]	[0.047, 0.103]	[-42.007, 52.252]
Precuneus	25.75 / 1.596	13.30 / 0.824	12.46 / 0.772	6.4969
	[1.518, 1.912]	[0.753, 0.976]	[0.740, 0.967]	[-11.255, 14.850]
Sup. parietal lobule	26.42 / 1.637	11.59 / 0.718	14.83 / 0.919	-24.4817
	[1.438, 2.007]	[0.696, 1.016]	[0.699, 1.021]	[-20.061, 19.531]
Supramarginal gyrus	18.94 / 1.174	10.93 / 0.677	8.02 / 0.497	30.6766
	[1.109, 1.586]	[0.510, 0.818]	[0.541, 0.823]	[-30.981, 26.106]

Occipital lobe	98.13 / 6.080 [5.545, 6.834]	50.76 / 3.145 [2.813, 3.529]	47.37 / 2.935 [2.674, 3.351]	6.8903 [-4.851, 13.488]
Calcarine cortex	11.02 / 0.683 [0.428, 0.712]	5.44 / 0.337 [0.216, 0.365]	5.58 / 0.346 [0.202, 0.356]	-2.4530 [-16.717, 23.233]
Cuneus	12.09 / 0.749 [0.610, 0.892]	6.04 / 0.374 [0.295, 0.465]	6.05 / 0.375 [0.295, 0.455]	-0.2904 [-23.435, 25.639]
Lingual gyrus	20.69 / 1.282 [1.115, 1.553]	10.84 / 0.671 [0.545, 0.800]	9.85 / 0.611 [0.528, 0.793]	9.4963 [-19.359, 25.408]
Occipital fusiform gyrus	10.21 / 0.633 [0.458, 0.759]	4.62 / 0.286 [0.204, 0.400]	5.59 / 0.347 [0.216, 0.411]	-19.0664 [-50.800, 35.533]
Inf. occipital gyrus	14.58 / 0.903 [0.878, 1.288]	7.47 / 0.463 [0.438, 0.695]	7.11 / 0.441 [0.393, 0.651]	4.8898 [-23.302, 38.030]
Middle occipital gyrus	12.53 / 0.776 [0.657, 0.992]	6.85 / 0.425 [0.324, 0.530]	5.67 / 0.352 [0.293, 0.508]	18.8494 [-26.139, 38.366]
Sup. occipital gyrus	9.21 / 0.571 [0.455, 0.769]	5.62 / 0.348 [0.236, 0.431]	3.59 / 0.222 [0.191, 0.371]	44.2178 [-16.335, 54.582]
Occipital pole	7.80 / 0.483 [0.319, 0.557]	3.88 / 0.240 [0.150, 0.289]	3.93 / 0.243 [0.146, 0.289]	-1.2378 [-37.846, 38.535]
Limbic cortex	49.69 / 3.079 [2.859, 3.435]	24.40 / 1.512 [1.351, 1.718]	25.29 / 1.567 [1.443, 1.788]	-3.6005 [-19.356, 9.791]
Entorhinal area	5.48 / 0.340 [0.246, 0.405]	2.51 / 0.155 [0.119, 0.211]	2.97 / 0.184 [0.118, 0.203]	-17.0751 [-25.455, 28.351]
Anterior cingulate gyrus	12.25 / 0.759 [0.696, 1.039]	6.41 / 0.397 [0.299, 0.529]	5.85 / 0.362 [0.352, 0.562]	9.0694 [-45.000, 24.087]
Middle cingulate gyrus	12.41 / 0.769 [0.669, 0.884]	6.57 / 0.407 [0.322, 0.465]	5.84 / 0.362 [0.315, 0.456]	11.9128 [-23.977, 27.791]
Posterior cingulate gyrus	11.10 / 0.688 [0.614, 0.798]	5.37 / 0.333 [0.291, 0.404]	5.73 / 0.355 [0.308, 0.411]	-6.3914 [-20.436, 13.588]
Parahippocampal gyrus	8.45 / 0.523 [0.419, 0.588]	3.54 / 0.219 [0.195, 0.285]	4.91 / 0.304 [0.218, 0.311]	-32.3600 [-27.443, 3.913]
Insular cortex	33.68 / 2.087 [2.044, 2.409]	16.43 / 1.018 [0.977, 1.184]	17.25 / 1.069 [1.040, 1.238]	-4.8425 [-14.064, 2.319]
Anterior insula	10.14 / 0.628 [0.553, 0.697]	4.97 / 0.308 [0.269, 0.350]	5.16 / 0.320 [0.280, 0.354]	-3.6553 [-12.488, 6.535]
Posterior insula	5.43 / 0.336 [0.299, 0.390]	2.75 / 0.171 [0.148, 0.202]	2.67 / 0.166 [0.142, 0.193]	2.9436 [-11.786, 18.049]
Central operculum	8.33 / 0.516 [0.517, 0.685]	4.41 / 0.273 [0.241, 0.344]	3.92 / 0.243 [0.259, 0.356]	11.7127 [-26.556, 14.476]
Frontal operculum	5.17 / 0.320 [0.221, 0.373]	2.07 / 0.128 [0.100, 0.192]	3.10 / 0.192 [0.108, 0.195]	-39.7011 [-39.992, 33.557]
Parietal operculum	4.62 / 0.286 [0.283, 0.437]	2.22 / 0.138 [0.116, 0.208]	2.39 / 0.148 [0.151, 0.244]	-7.4553 [-53.394, 10.366]

CSF	Total (cm^3 / %)	Right (cm^3 / %)	Left (cm^3 / %)	Asymmetry (%)
Inf. lateral ventricle	1.35 / 0.084 [0.031, 0.098]	0.68 / 0.042 [0.015, 0.058]	0.67 / 0.041 [0.013, 0.047]	2.3407 [-49.199, 92.028]
Lateral ventricle	19.88 / 1.232 [0.607, 2.225]	10.91 / 0.676 [0.286, 1.122]	8.97 / 0.556 [0.290, 1.161]	19.5673 [-51.351, 44.475]
3rd ventricle	0.91 / 0.056 [0.025, 0.093]			
4th ventricle	1.93 / 0.120 [0.078, 0.176]			
External CSF	162.03 / 10.039 [7.672, 12.620]			

Cerebellar vermis	Total (cm^3 / %)
Lobules I-V	7.36 / 0.456 [0.336, 0.490]
Lobules VI-VII	2.85 / 0.177 [0.151, 0.231]
Lobules VIII-X	3.70 / 0.229 [0.176, 0.263]