## Numbers2regions for the Hammers\_mith atlas n30r83

The region list on the next page translates the (essentially arbitrary) voxel value coding for the regions into anatomical names.

The exact region definitions and protocols used for manually delineating the 30x83 regions can be found in the following papers:

## (for regions 1-49):

**Hammers A**, Allom R, Koepp MJ, Free SL, Myers R, Lemieux L, Mitchell TN, Brooks DJ, Duncan JS. Three-dimensional maximum probability atlas of the human brain, with particular reference to the temporal lobe. *Hum Brain Mapp* 2003, 19: 224-247.

## (for regions 50-83):

Gousias IS, Rueckert D, Heckemann RA, Dyet LE, Boardman JP, Edwards AD, **Hammers A**. Automatic segmentation of brain MRIs of 2-year-olds into 83 regions of interest. *Neuroimage* 2008 Apr 1;40(2):672-684 and on the associated web page, <a href="https://www.brain-development.org">www.brain-development.org</a>.

## **IMPORTANT HINT:**

Odd numbers always indicate a region on the right side of the brain; even numbers one on the left. This can help when using n30r83 with new software, to check R/L orientation is correct after spatial manipulations.

Alexander Hammers, Lyon, 15 December 2011.

Number in Atlas	Name of Structure
Temporal Lobe	
; 2	Hippocampus
; 4	Amygdala
; 6	Anterior temporal lobe, medial part
; 8	Anterior temporal lobe, lateral part
; 10	Parahippocampal and ambient gyri
1; 12	Superior temporal gyrus, posterior part
3; 14	Middle and inferior temporal gyrus
5; 16	Fusiform gyrus
0; 31	Posterior temporal lobe
2; 83	Superior temporal gyrus, anterior part
Posterior Fossa	
7; 18	Cerebellum
9	Brainstem
nsula and Cingulate gyri	
0; 21	Insula
4; 25	Cingulate gyrus (gyrus cinguli), anterior part
6; 27	Cingulate gyurs (gyrus cinguli), posterior part
Frontal Lobe	•
8; 29	Middle frontal gyrus
0; 51	Precentral gyrus
2; 53	Straight gyrus
4; 55	Anterior orbital gyrus
6; 57	Inferior frontal gyrus
8; 59	Superior frontal gyrus
8; 69	Medial orbital gyrus
0; 71	Lateral orbital gyrus
2; 73	Posterior orbital gyrus
6; 77	Subgenual frontal cortex
8; 79	Subcallosal area
0; 81	Pre-subgenual frontal cortex
Occipital Lobe	-
4; 65	Lingual gyrus
6; 67	Cuneus
2; 23	Lateral remainder of occipital lobe
Parietal Lobe	-
0; 61	Postcentral gyrus
2; 63	Superior parietal gyrus
2; 33	Inferiolateral remainder of parietal lobe
Sentral Structures	•
4; 35	Caudate nucleus
6; 37	Nucleus accumbens
8; 39	Putamen
0; 41	Thalamus
2; 43	Pallidum
4	Corpus callosum
4; 75	Substantia nigra
entricles	C
5; 46	Lateral ventricle (excluding temporal horn)
7; 48	Lateral ventricle, temporal horn
9	Third ventricle