

## Abbreviations of brain regions

Abbrev.	Full name	Location	Proposed function
ACC	Anterior Cingulate Cortex	Frontal lobe	Computing cognitive conflict
CA1	Cornu Ammonis 1 <sup>st</sup> segment	Hippocampal system	Part of hippocampal memory system (precise function debated)
CA3	Cornu Ammonis 3 <sup>rd</sup> segment	Hippocampal system	Auto-associative memory
DG	Dentate Gyrus	Hippocampal system	Generating pseudo-random representation for memories
EC	Entorhinal Cortex	Hippocampal system	Cortical input to the hippocampus
GP	Globus Palidus	Basal ganglia	Computation of optimal conflict, learning from punishments
IT	Inferior Temporal cortex	Temporal lobe	High level visual feature extraction (representation of objects)
LGN	Lateral Geniculate Nucleus	Thalamus	Lowest level visual feature extraction
LIP	Lateral Intra-Parietal cortex	Parietal lobe	Controlling eye-movements
MT	Medial Temporal cortex	Occipital lobe	Extraction of information about motion in the stimulus
STN	Subthalamic Nucleus	Basal ganglia	Preventing premature responses during high conflict choices
V1	Primary Visual cortex	Occipital lobe	Lower level visual feature extraction
V2, 3, 4	Visual cortex 2, 3, 4	Occipital lobe	Middle level visual feature extraction
VTA	Ventral Tegmental Area	Mid-brain	Computing temporal difference error