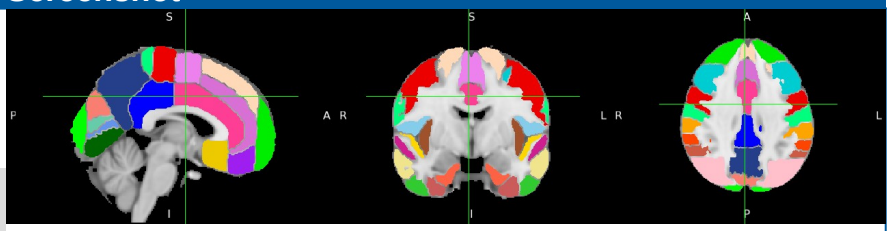
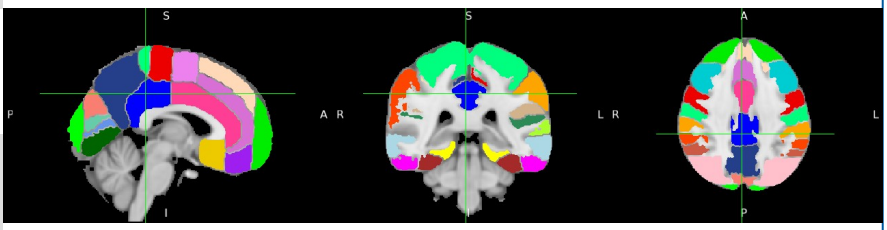
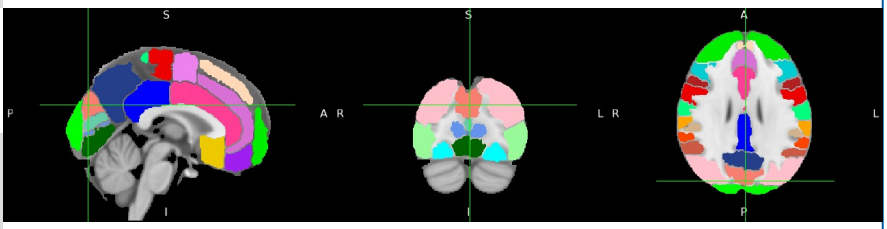
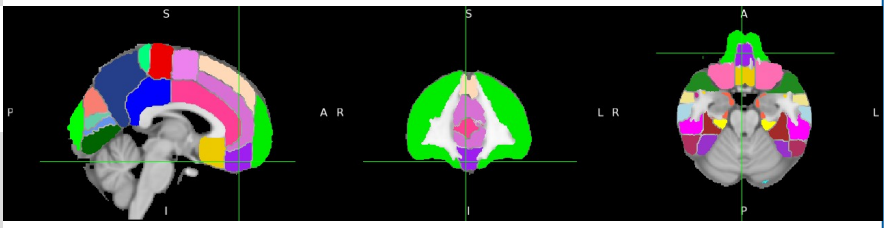
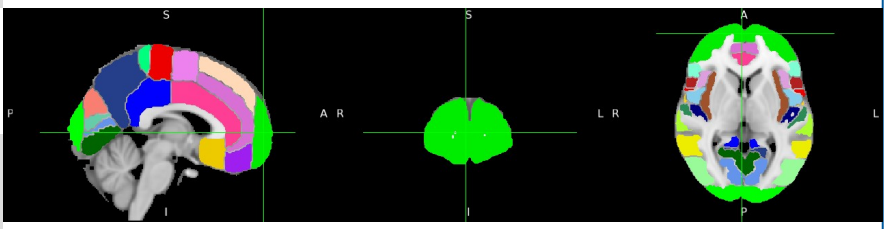
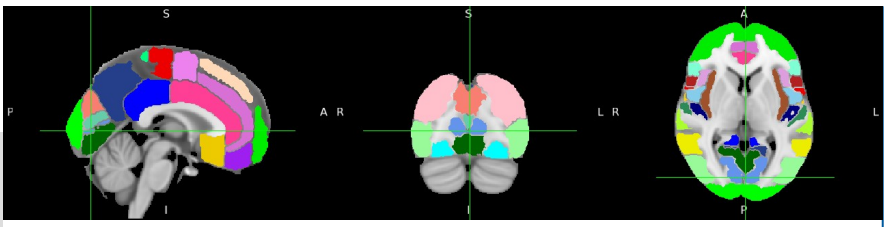
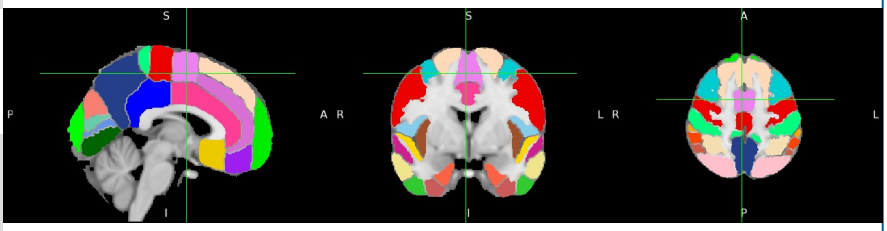
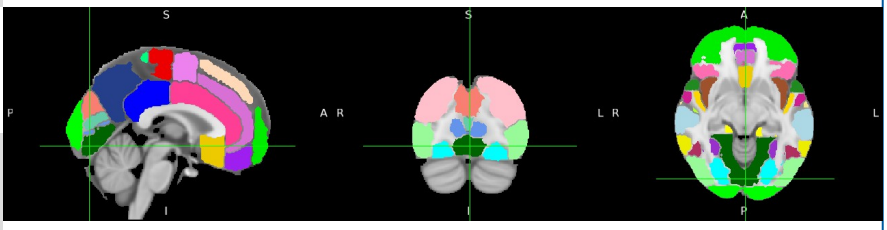
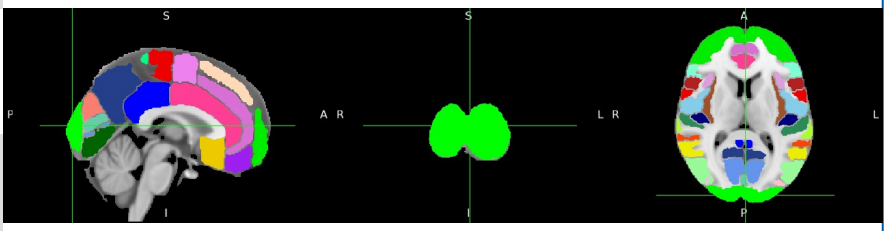
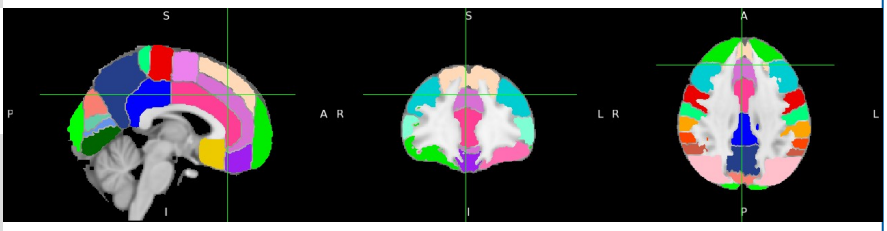
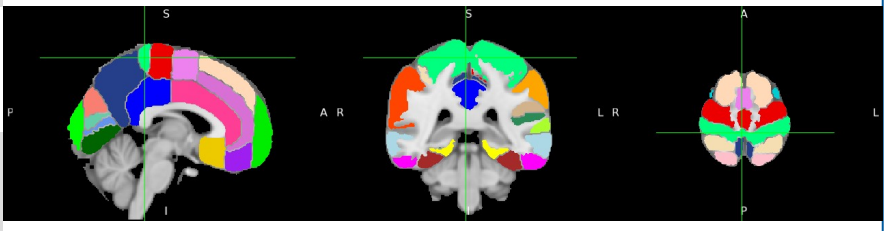
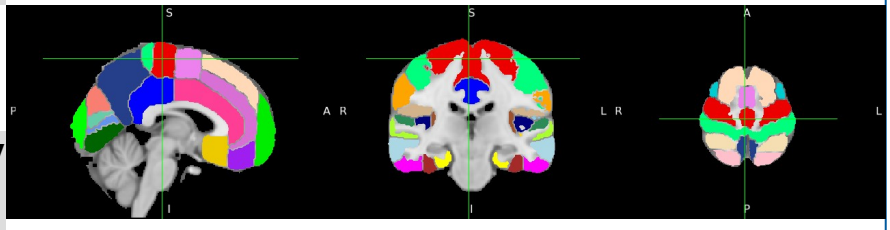
Neuroanatomy Task

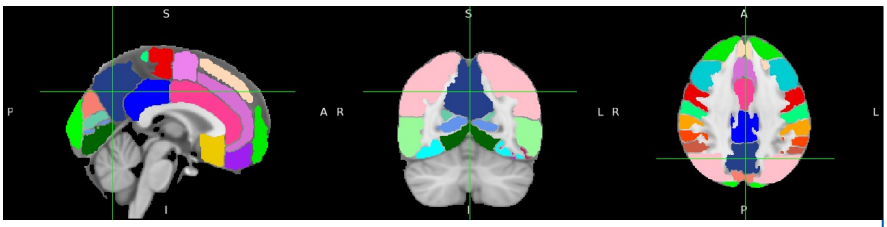
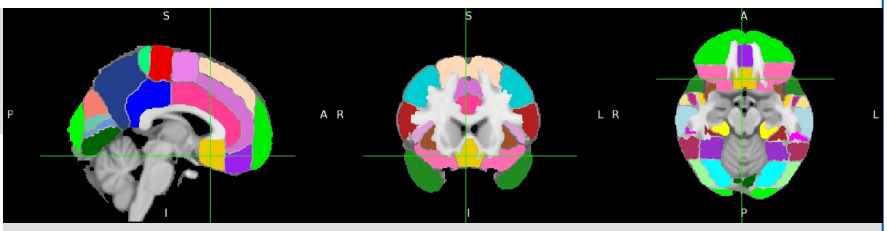
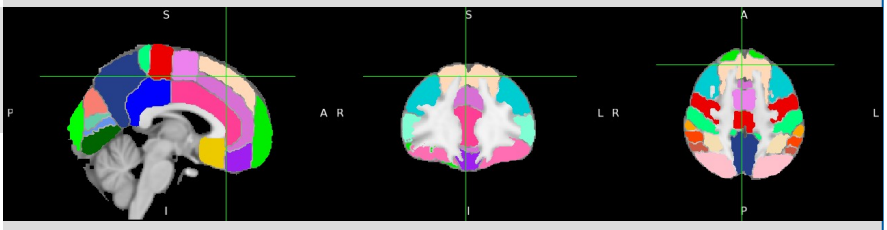
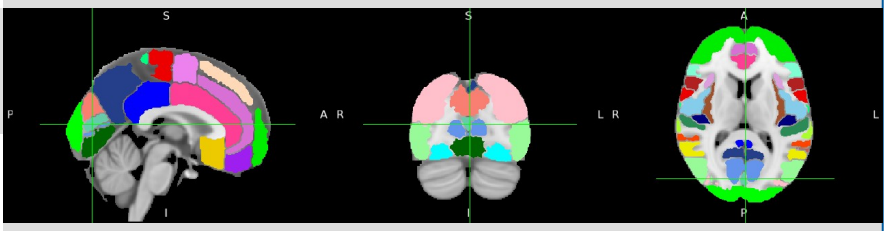
Mahmoud Rabea

Sec : 2
BN :25
ID:9203396

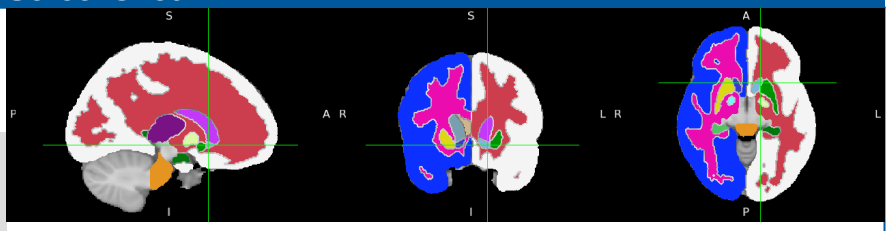
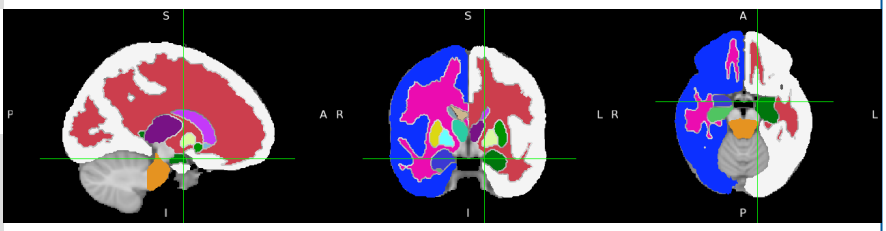
Harvard-Oxford Cortical Structural Atlas:

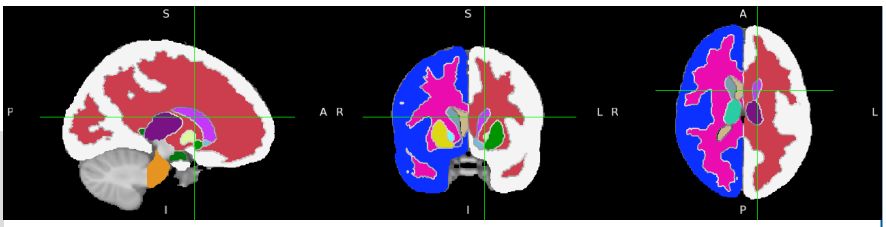
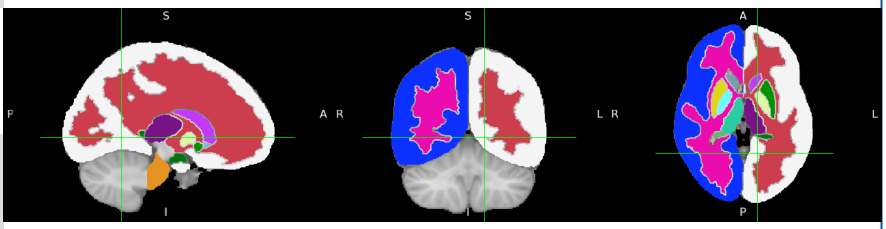
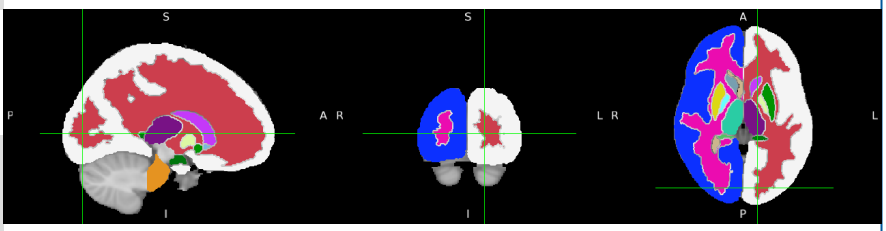
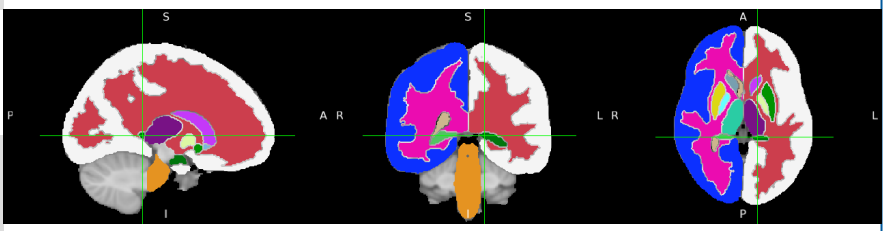
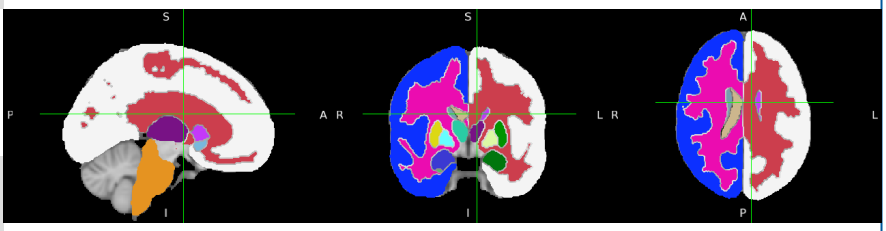
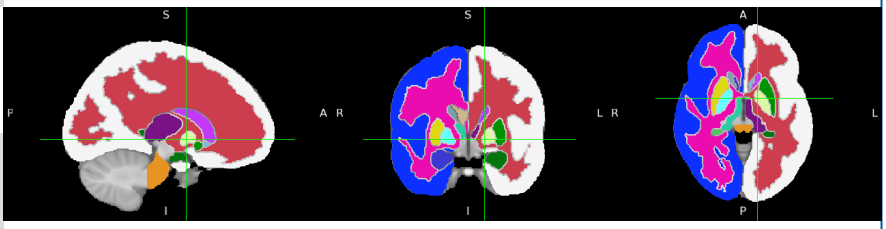
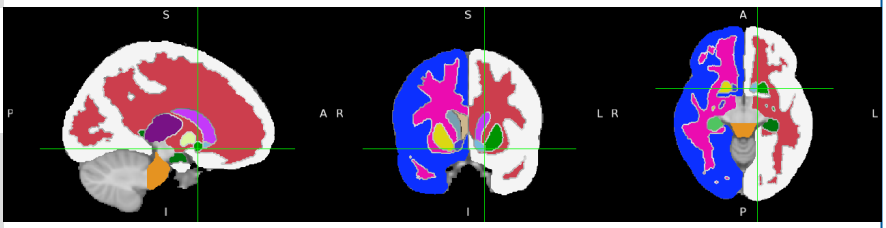
Region Name	Two main functions	Screenshot
Cingulate Gyrus, anterior division	Emotional Processing	
	Decision Making	
Cingulate Gyrus, posterior division	Sensory integration	
	Pain processing	
Cuneal Coretex	Visual processing	
	Visuospatial attention	
Frontal Medial Cortex	Decision-making	
	Self-awareness	
Frontal Pole	Attentional control	
	Decision-making	

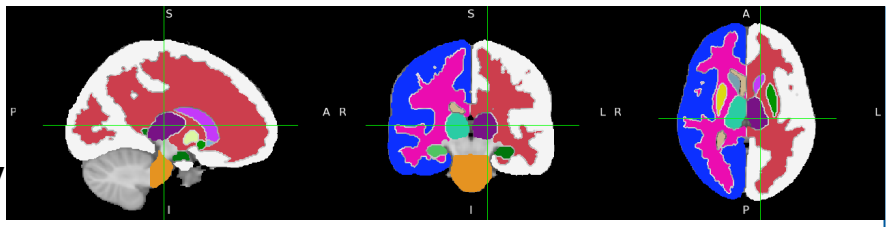
Intracalcarine Cortex (primary visual cortex or V1)	Visual processing Perception.	
Juxtapositional Lobule Cortex (formerly Supplementary Motor Cortex)	Motor planning Movement initiation	
Lingual Gyrus	Visual processing Object recognition	
Occipital pole	Perception Visual processing	
Paracingulate Gyrus	Cognitive control Emotional Processing	
Postcentral Gyrus (primary somatosensory cortex or S1)	Somatosensory processing Spatial discrimination	
Precentral Gyrus (primary motor cortex or M1)	Motor planning Execution of voluntary movements	

Precuneous Cortex	Self-processing And Visuospatial processing	
Subcallosal Cortex	Emotional regulation	
	Reward processing	
Superior Frontal Gyrus	Cognitive control	
	Working memory	
Supracalcarine Cortex	Visual processing	
	Perception of spatial frequency	
Total Number of Regions		16

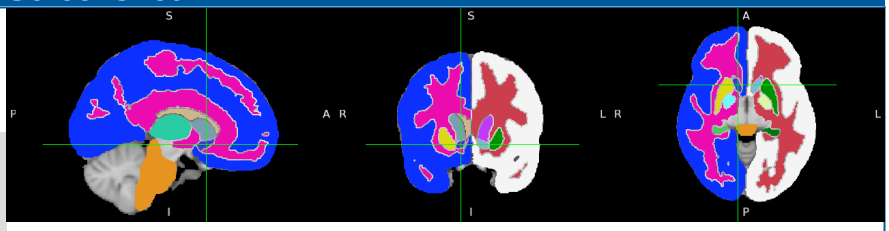
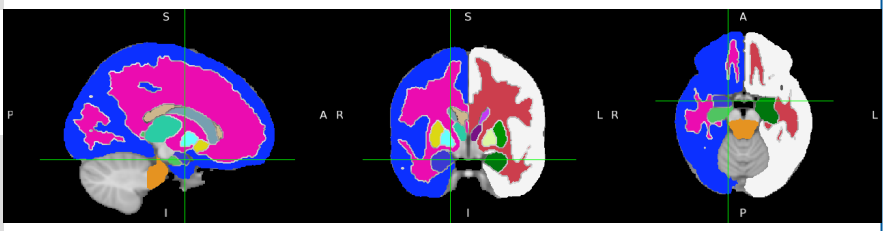
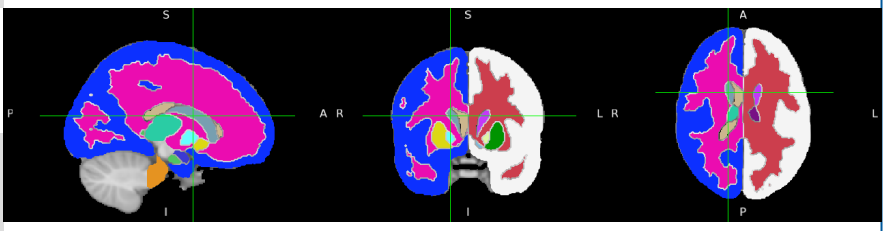
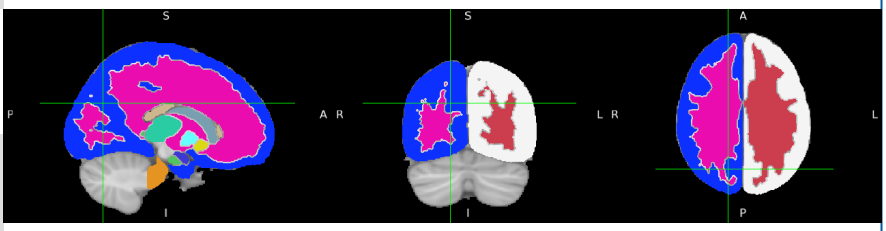
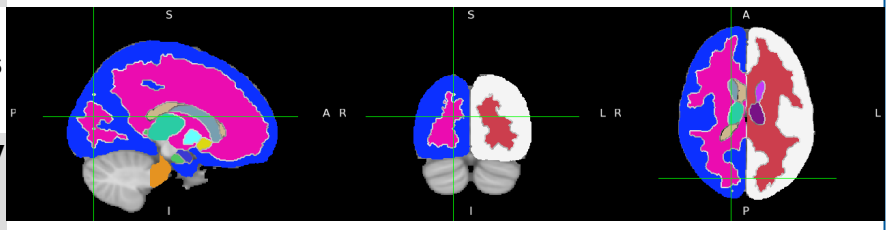
Harvard-Oxford Sub-cortical Structural Atlas: Left:

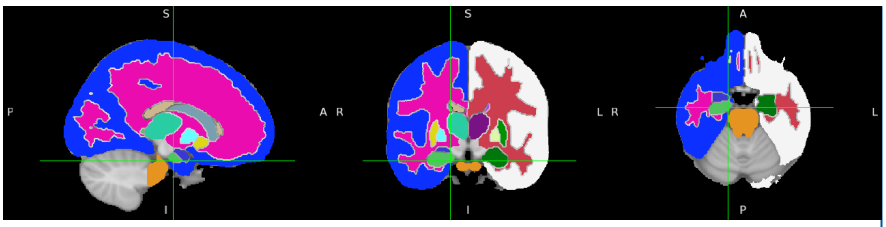
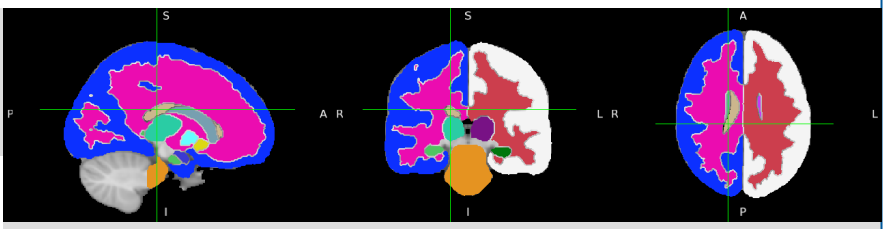
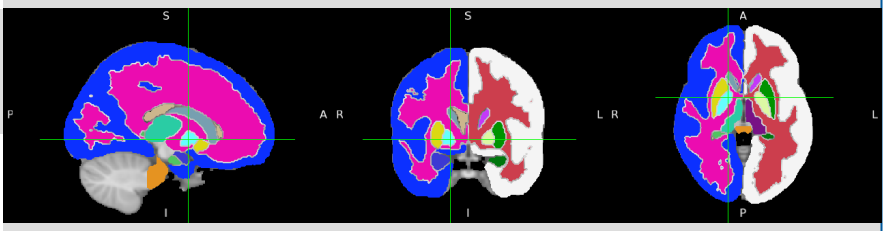
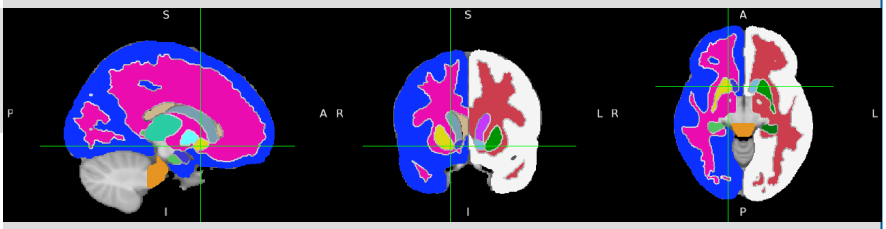
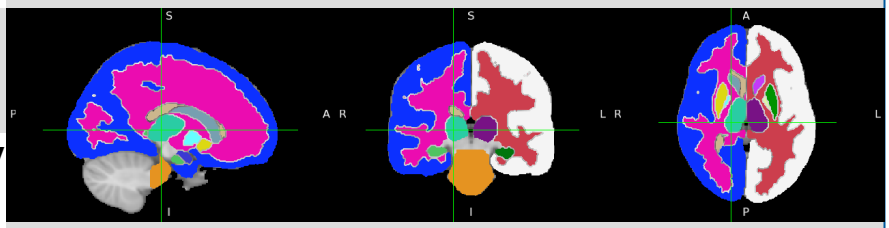
Region Name	Two Main Functions	Screenshot
Left Accumbens (nucleus accumbens)	Reward processing	
	Motivation	
Left Amygdala	Emotional processing	
	Emotional memory	

Left Caudate	**Motor control**	
	Cognitive flexibility.	
Left Cerebral Cortex	**Language processing**	
	Logical reasoning	
Left Cerebral White Matter	**Communication between brain regions**	
	Processing of language-related information	
Left Hippocampus	**Spatial navigation**	
	Memory consolidation	
Left Lateral Ventricle	**Production and circulation of cerebrospinal fluid (CSF)**	
	Support for brain structure.	
Left Pallidum (Globus Pallidus)	**Motor control**	
	Reward processing	
Left Putamen	**Motor control**	
	Procedural learning.	

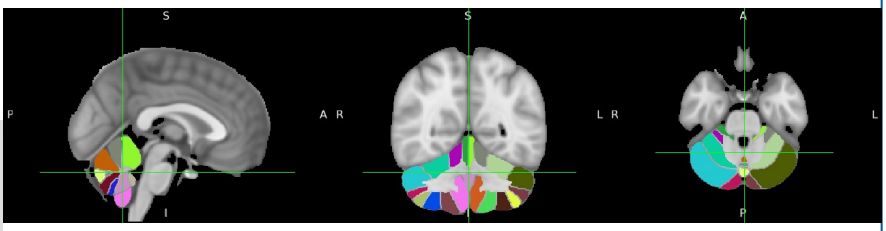
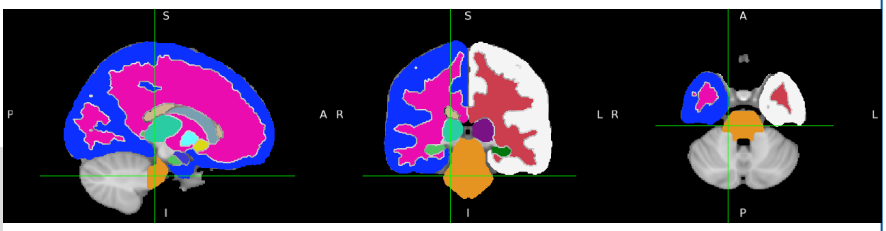
Left Thalamus	Sensory relay AND Processing of sensory information	
Total Number of Regions	10	

Right:

Region Name	Two Main Functions	Screenshot
Right Accumbens (nucleus accumbens)	Reward processing Motivation	
Right Amygdala	Emotional processing Emotional memory	
Right Caudate	Motor control Reward-based learning	
Right Cerebral Cortex	Spatial processing Creative thinking	
Right Cerebral White Matter	Communication between brain regions Processing of sensory information	

Right Hippocampus	Spatial navigation AND Memory consolidation	
Right Lateral Ventricle	Production and circulation of cerebrospinal fluid (CSF) Support for brain structure.	
Right Pallidum (Globus Pallidus)	Motor control Reward processing	
Right Putamen	Motor control Learning from rewards and punishments	
Right Thalamus	Sensory relay Processing of sensory information	
Total Number of Regions	**10**	

Cerebellum & Brainstem:

Region Name	Two main functions	Screenshot
Cerebellum	Motor coordination and balance	
	Learning and memory related to motor skills	
Brainstem	Regulation of vital functions such as breathing and heart rate.	
	Transmission of neural signals between the brain and the rest of the body	