Brain anatomy

Cerebellum - the part of the brain at the back of the skull in vertebrates. Its function is to coordinate and regulate muscular activity.

Parietal lobes - either of the paired lobes of the brain at the top of the head, including areas concerned with the reception and correlation of sensory information.

Basal ganglia - a group of structures linked to the thalamus in the base of the brain and involved in coordination of movement.

Brain stem - the portion of the brain that is continuous with the spinal cord and comprises the medulla oblongata, pons, midbrain, and parts of the hypothalamus, functioning in the control of reflexes and such essential internal mechanisms as respiration and heartbeat.

Cortex - the furrowed outer layer of gray matter in the cerebrum of the brain, associated with the higher brain functions, as voluntary movement, coordination of sensory information, learning and memory, and the expression of individuality.

Frontal lobe - each of the paired lobes of the brain lying immediately behind the forehead, including areas concerned with behavior, learning, personality, and voluntary movement.

Brain EEG
Low Beta/High Beta - Beta wave, or beta rhythm, is the term used to designate the frequency range of human brain activity between 12.5 and 30 Hz (12.5 to 30 transitions or cycles per second

Low Alpha/High Alpha - Alpha waves are one type of brain waves detected either by electroencephalography (EEG) or magnetoencephalography (MEG) and predominantly originate from the occipital lobe during wakeful relaxation with closed eyes. Alpha waves are reduced with open eyes, drowsiness and sleep.

Delta - A delta wave is a high amplitude brain wave with a frequency of oscillation between 0.5–4 hertz. A delta wave is a high amplitude brain wave with a frequency of oscillation between 0.5–4 hertz. Delta waves, like other brain waves, are recorded with an electroencephalogram[1] (EEG) and are usually associated with the deep stage 3 of NREM sleep, also known as slow-wave sleep (SWS), and aid in characterizing the depth of sleep.

Low Gamma/High Gamma - Gamma brain waves (39-100 hz) are involved in higher mental activity and consolidation of information. An interesting study has shown that advanced Tibetan meditators produce higher levels of gamma than non-meditators both before and during meditation.

Theta - Theta waves generate the theta rhythm, a neural oscillatory pattern in electroencephalography (EEG) signals, recorded either from inside the brain or from electrodes glued to the scalp. Theta waves with a lower frequency range, usually around 6–7 Hz, are sometimes observed when a rat is motionless but alert.