Medulla Oblongata

Located in the lower part of the brain stem, the medulla oblongata is in charge of autonomic functions like heart rate, breathing, and swallowing. It also plays a major role in coordinating signals between the brain and the spinal cord. Damages to the medulla oblongata can cause sensory complications, difficulty swallowing, paralysis, but usually cause death because it controls functions that are basic to human life (breathing, heart rate, maintaining homeostasis, etc).

Location of the medulla oblongata

Source: Brain Explorer

More detailed look at the medulla oblongata.

Source: The Brain Wiki