The accepted view of the neuron attributes dedicated functions to its various anatomical components; however, dendrites and axons often act in ways contrary to their so-called main function.Much of what is known about axonal function comes from studying the squid giant axon, an ideal experimental preparation because of its relatively immense size (0.5–1 millimeter thick, several centimeters long).Fully differentiated neurons are permanently postmitotic[9] however, stem cells present in the adult brain may regenerate functional neurons throughout the life of an organism (see neurogenesis).Sensory neurons can have axons that run from the toes to the posterior column of the spinal cord, over 1.5 meters in adults.