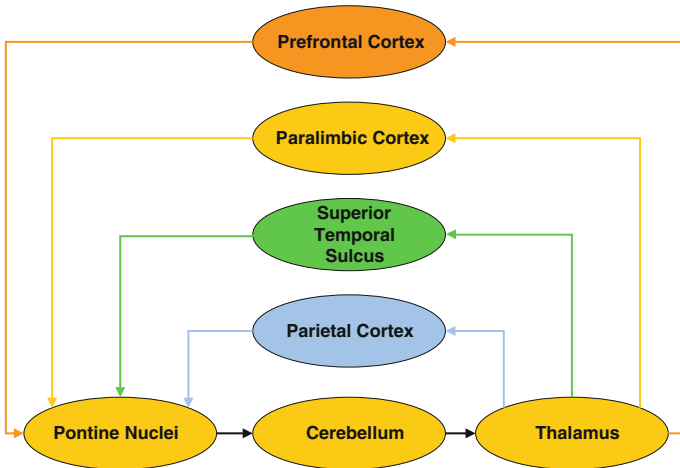


# The Modular Organization of the Cerebellum

The cerebellum is organized along an anterior–posterior and lateral–medial gradient. The anterior lobes of the cerebellum are involved in movement—typically that which is very well practiced or automatic. The posterior regions are involved in cognition and in learning and adapting new sensorimotor tasks and behaviors. The medial regions of the cerebellum are involved in affective, emotional, and motivational processes. The lateral regions of the cerebellum are involved in cognitive processes [234, 235]. Corresponding regions of the cerebral cortex project information to the cerebellum through the highly organized cerebro-cerebellar circuitry system. A simplified scheme of this circuitry system, described above, is depicted in Fig. 1.



**Fig. 1** Simplified illustration of connections between the cerebral cortex and the cerebellum. Koziol/Budding, 2009