



**Fig. 1:** Neuropil structures in the insect brain. **A.** Frontal diagram of the brain of the locust *Schistocerca gregaria*. **B.** Horizontal view of the brain of the sphinx moth *Manduca sexta*. In both figures the left optic lobe has been omitted. The optic lobe consists of the lamina (La), the medulla (Me), and the lobula complex (Lo). In the moth, the lobula plate (LP) can be distinguished from the lobula proper. Subdivisions of the mushroom body are the calyx (Ca), the pedunculus (P), and the  $\alpha$ - and  $\beta$ -lobe (aL, bL). In the locust mushroom body, an accessory calyx (ACa) and, in the moth, a secondary pedunculus (SP), a  $\gamma$ -lobe (gL), and a Y-lobe (YL) are present. The central complex consists of the upper and lower division of the central body (CBU, CBL) and the protocerebral bridge (PB). In **A**, the antennal, the ocellar and the labro-frontal nerves (AN, ON, LFN) are shown. Other brain areas: AL, antennal lobe; AOTu, anterior optic tubercle; LAL, lateral accessory lobe; LH, lateral horn of the protocerebrum; TC, tritocerebrum. Scale bar: 200  $\mu$ m.