

Precentral gyrus tumor

see [Precentral gyrus glioma](#).

Catani et al. identified three intralobar tracts connecting: i) posterior [Broca's area](#) with [supplementary motor area](#) (SMA) and pre-supplementary motor area (pre-SMA) (i.e., the [frontal aslant tract](#) - FAT); ii) posterior orbitofrontal cortex with anterior polar region (i.e., [frontoorbitopolar tract](#) - FOP); iii) posterior [precentral cortex](#) with anterior prefrontal cortex (i.e., the frontal superior longitudinal - FSL fasciculus system). In addition more complex systems of short U-shaped fibres were identified in the regions of the central, pre-central, perinsular and fronto-marginal sulcus (FMS). The connections between Broca and medial frontal areas (i.e. FAT) and those between the hand-knob motor region and post-central gyrus (PoCG) were found left lateralized in a group of twelve healthy right-handed subjects. The existence of these short frontal connections was confirmed using post-mortem blunt dissections. The functional role of these tracts in motor learning, verbal fluency, prospective behaviour, episodic and working memory is discussed in the study of Catani et al. provides a general model for the local connectivity of the [frontal lobes](#) that could be used as an anatomical framework for studies on lateralization and future clinical research in neurological and psychiatric disorders ¹⁾.

Precentral gyrus metastases

see [Precentral gyrus metastases](#).

¹⁾

Catani M, Dell'acqua F, Vergani F, Malik F, Hodge H, Roy P, Valabregue R, Thiebaut de Schotten M. Short frontal lobe connections of the human brain. *Cortex*. 2012 Feb;48(2):273-91. doi: 10.1016/j.cortex.2011.12.001. Epub 2011 Dec 13. PubMed PMID: 22209688.

From:

<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:

https://neurosurgerywiki.com/wiki/doku.php?id=precentral_gyrus_tumor

Last update: **2024/06/07 02:52**

