

From Anatomy to Function of the Central Nervous System

Clinical and Neurosurgical Applications



Edited by
Brandon Matteo Ascenzi



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AUDIENCE: Neuroscientists, neurologists, neurosurgeons, neurophysiologists, neurobiologists, neuropsychologists and medical students

SHELVING CLASSIFICATIONS:

Neuroanatomy, Neuroscience, Neuroscience Methodology

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THEMA CLASSIFICATION:

THEMAPSAN; THEMADPM; THEMAJMM; THEMAJMR

A completely innovative reference of *Functional Neuroanatomy*, useful for knowing and understanding the not easy neuroanatomical and neurofunctional features of the Central Nervous System

KEY FEATURES

- Integrates anatomo-functional descriptions with the synaptic and neurochemical organization of the CNS
- Allows readers to better understand the morphology and topography of encephalic structures
- Features neuroradiological images and human brain dissections using the Klingler's method
- Chapters have references (key article, book, and protocols) for additional detailed studies

DESCRIPTION

From Anatomy to Function of the Central Nervous System: Clinical and Neurosurgical Applications, aims to satisfy the needs of a large audience by describing virtually all the anatomo-functional aspects of the CNS by the use of radiologic-nuclear imaging (e.g., fMRN, PET) and electrophysiological methods (e.g., EEG, Patch-clamp), as well as Klingler's dissection. The latter offers a great advantage to understand the macroscopic anatomy of the brain, allowing to highlight *ex vivo* even the most hidden structures. It is important that for the first time the Klingler's method, known and used mainly in neurosurgical education, is reported in a functional neuroanatomy book together with the neuroradiologic images, that represent in turn, one of the most effective resources able to detect the nerve structures today, especially in the clinical and neurosurgical fields. Lastly, by integrating the anatomo-functional description with the synaptic organization of the CNS, this reference is useful for anyone who wants to understand how the activity of a nerve structure arises, describing its microstructure, neurotransmitter phenotype and neural activity. It also features description of pathologic conditions which result from neuroanatomical and/or neurofunctional alterations and includes neurosurgical aspects.

RELATED TITLES

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