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| 1. Record Nr. | UNINA9910298270603321 |
| Titolo | Recent Advances on the Modular Organization of the Cortex // edited by Manuel F. Casanova, Ioan Opris |
| Pubbl/distr/stampa | Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015 |
| ISBN | 94-017-9900-8 |
| Edizione | [1st ed. 2015.] |
| Descrizione fisica | 1 online resource (434 p.) |
| Disciplina | 610 611 612.8 616.8 |
| Soggetti | Neurosciences Neurology Human anatomy Neurology Anatomy |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references and index. |
| Nota di contenuto | Introduction -- Vernon Benjamin Mountcastle -- Modular organization of the prefrontal cortex: the legacy of Patricia Goldman-Rakic -- The types of functional and structural subdivisions of cortical areas -- The types of functional and structural subdivisions of cortical areas -- The minicolumn in comparative context -- Unusual cortical lamination patterns in the sengis (elephant shrews) do not appear to influence the presence of cortical minicolumns -- Active inference, predictive coding and cortical architecture -- Columnar organization of the motor cortex: direction of movement -- Discrete, place-defined macrocolumns in somatosensory cortex: lessons for modular organization of the cerebral cortex -- Prefrontal cortical microcircuits for executive control of behavior -- Cytoarchitectural modules: functional specialisation and disruption in neuropsychiatric disorders -- The relevance of subplate modifications to connectivity in the cerebral cortex of individuals with autism spectrum disorders -- The minicolumnopathy of autism -- Clinical applications of electrophysiological approaches based on |

cortical modularity in autism -- Index.

Sommario/riassunto

The way you perceive the world, plan, make decisions and communicate your thoughts and feelings depends on the function and hierarchical arrangement of cortical modules. The ability to both provide adaptive responses to our ever-changing environment and to pursue a useful role in society is the most important problem faced by present day neuroscientists. In essence, the workings of cortical modules define the nature of our soul, making each of us who we are. This book provides a breath-taking view of different perspectives by world renowned authorities as to the workings of these cortical modules both in the normal state and in mental disorders.
