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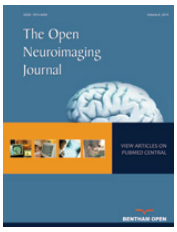

BOOK REVIEW

Neuroimaging Genetics Edited by Bigos *et al.* Oxford University Press

Klaus Mathiak* and Martin Klasen

Department Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University; JARA-Brain, Translational Neuroscience, Aachen, Germany

Over the last two decades, the association of genetic variation and brain function has received considerable attention. It is well established that most psychiatric and neurological diseases have a substantial genetic contribution. Therefore, investigating the influences of genotypes on brain structure and function should lead to a better understanding of the neurobiology of physiological brain functions and neuropsychiatric disorders. *Neuroimaging Genetics - Principles and Practices* is a comprehensive volume which exhaustively covers this field of imaging genetics. The table of contributors is a who-is-who of top-ranking researchers in the field, and the scientific quality of the single chapters is extraordinary. The book offers an impressive range of thematic fields, spanning from basic neuroscience to clinical implications. Most of the topics are covered with stunning detail, including basically all relevant studies on the respective issue. This makes the volume an important reference book for experienced researchers of the neuroimaging genetics community. Beginners, however, may miss a broader introduction to basic concepts concerning the molecular biology as well as the imaging techniques. Methodological overviews in future editions may render the book more accessible to less specialized readers. In a similar vein, more figures may help to illustrate the content of the text better and help to get a faster insight into the topics.

The interdisciplinary approach of the book is adequate and laudable; the book successfully unites findings from various disciplines such as molecular genetics, neurology, psychiatry, psychology, and cognitive neuroscience. Fundamentals of gene influences on neurochemistry are exhaustively covered as well as the neurogenetics of basic cognitive functions. The chapters on the association of genes with psychiatric and neurological disorders form one of the most comprehensive collections of clinical imaging genetics literature and are a must-read for every interested clinical neuroscientist. Of note, the book covers both functional and structural aspects, providing a comprehensive picture. At the advent of individualized medicine, the section on genotype-dependent drug response is of particular relevance. Moreover, the book goes even beyond the classical genotype-disease associations. Remarkable and socially relevant is the section on healthy and pathological processes of cognitive aging. The book also tackles complex multifactorial approaches such as gene-environment interactions and multi-locus models. However, these latter sections could be more comprehensive in future editions, given their importance for overcoming the limitations of traditional study designs.

* Address correspondence to this author at the Department Psychiatry, Psychotherapy and Psychosomatics, RWTH Aachen University; JARA-Brain, Translational Neuroscience, Aachen, Germany; Tel: +49 241 80-89647; Fax: +49 241 80-82401; E-mail: kmathiak@ukaachen.de