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## **BOOKS AND JOURNALS REVIEWS**

### **Janusz K. Rybakowski, Alessandro Serretti (ed.) GENETIC INFLUENCES ON RESPONSE TO DRUG TREATMENT FOR MAJOR PSYCHIATRIC DISORDERS**

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Genetic factors are believed to play a major role in the variation of treatment response and the incidence of side effects of medications. The aim of pharmacogenetics is to study the relationship between gene variants and drug response – such as treatment efficacy and risk of side effects. It is hoped that pharmacogenetic studies will lead to the individual prediction of response to drugs and reduction of adverse effects

Professor Janusz Rybakowski and Professor Alessandro Serretti, experts in the field of pharmacogenetic studies in psychiatry, are editors of the book “Genetic influences on response to drug treatment for major psychiatric disorders”. The book is written by global experts such as Maria Arranz, Daniel Muller, Chiara Fabbri, Roy Perlis, Alessandro Serretti and Janusz Rybakowski. This book provides insight into the pharmacogenetics of antipsychotics, antidepressants and mood stabilizers in the treatment of schizophrenia, depression and bipolar disorder.

The authors of the first two chapters of this book review pharmacogenetic findings in relation to antipsychotic drugs used in the treatment of schizophrenia. These pharmacogenetic studies are related to antipsychotic efficacy and antipsychotic-induced side effects such as tardive dyskinesia, metabolic syndrome, clozapine-induced agranulocytosis. In summary authors indicate that in spite of great progress in the field of pharmacogenetics the translation of this findings into clinical practice is difficult.

In the next two chapters authors review pharmacogenetic studies of antidepressants. Particularly they present genetic findings in relation to drug efficacy, side effects and sub-type of depression “treatment-resistant depression”. They indicate that recently published studies supported the clinical utility of genetic testing. This test is based on polymorphisms of genes involved in pharmacokinetics (cytochrome P450) and pharmacodynamics (SLC6A4 and HTR2) of antidepressants.

The fifth chapter discusses the studies on biomarkers related to depression and pharmacotherapy of depression. The authors discuss the results concerning proteomics

testing and neuroimaging of the brain. In summary the authors indicate that despite great progress in the field the known biomarkers are not specific enough to be used in clinical practice.

In the sixth chapter pharmacogenetic studies of mood stabilizers (lithium, valproate, carbamazepine, olanzapine, lamotrigine) in long-term treatment of bipolar disorder are discussed. The author of the chapter presents pharmacogenetic studies – candidate genes, genome-wide association studies mainly in relation to lithium. The author also presents the first data from the International Consortium on Lithium Genetics (Con-LiGen) – including 2,563 patients collected by 22 participating sites.

In the last chapter Serretti A. and Rybakowski J. discussed the results of pharmacogenetic studies presented in previous chapters mainly in relation to clinical application of pharmacogenetics.

This book is very interesting and useful especially for psychiatrists, not only as an update of present state of knowledge; challenges and the future directions of pharmacogenetics are also discussed.

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