

# Schizophrenia: Differential Transcriptome and Novel Targets

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# **SCHIZOPHRENIA: DIFFERENTIAL TRANSCRIPTOME AND NOVEL TARGETS**

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## PREFACE

Schizophrenia is one of the most complex and disabling diseases to affect mankind. Relatively little is known about its nature and its origins, and available treatments are inadequate for most patients. As a result, there are inevitable controversies about what causes it, how to diagnose it, and how best to treat it. Schizophrenia has been a controversial topic since the term was first proposed by Eugen Bleuler to describe a uniquely human syndrome of profoundly disturbed behavior. In the years following Bleuler's original work the controversies have continued at least as vigorously, but their content has changed. The debate is no longer about the nature of intrapsychic mechanisms, or whether schizophrenia really exists, or whether it is an illness as opposed to a life choice, or whether it is an important public health concern. Indeed, a recent editorial in *Nature* reified the current status of schizophrenia in the biomedical research establishment by declaring, 'Schizophrenia is arguably the worst disease affecting mankind, even AIDS not excepted' (*Nature* Editorial, 1988). The debate has shifted away from the view that schizophrenia is caused by a fault in the infant-mother psychological relationship.

However, in the past decade, there has been an explosion of new research, with dramatic discoveries involving genetic etiology and epidemiological risk factors. There has also been a catalog of new drugs coming to market, and controversy about the relative advantages and disadvantages of newer compared with older therapies. In addition, developing technologies in genomics, molecular biology and neuroimaging provide streams of new information.

This textbook of schizophrenia represents a major shift of thinking influenced by the recent changes in our understanding of the brain, the developments in methodology which have influenced scientifically informed notions of our clinical practice, and the changes in our culture which have led to new concepts of management and treatment and a new understanding of the factors which are likely to affect relapse. Promising as some of the basic science may seem, schizophrenia is still a disease whose diagnosis depends on clinical acumen and careful assessment.

This book represents a definitive, essential, and up-to-date reference text on schizophrenia. It extensively and critically digests and clarifies recent advances and places them within a clinical context. This includes a series of chapters that discuss Currently Recognized Genes for Schizophrenia: High-Resolution Chromosome Ideogram Representation (Chapter 2), Epigenetics and "Gene X Environment" Interactions (Chapter 3), Chromatin Regulators Linked to Schizophrenia via Evidence from Genetics and Functional Genomics (Chapter 4), Transcriptome Study of Differential Expression

(Chapter 5), Variations in Differential Gene Expression Patterns across Multiple Brain Regions (Chapter 6), Drug Targets Differentially Expressed in the Prefrontal Cortex of Schizophrenia Patients (Chapter 7). The increased recognition of the importance of neuropsychological deficits in the chronic disability and outcome of this illness is highlighted by several contributors.

*✍ Nikunaj Bhardwaj*

*✍ Swati Pandit*

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 *Nikunaj Bhardwaj*



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