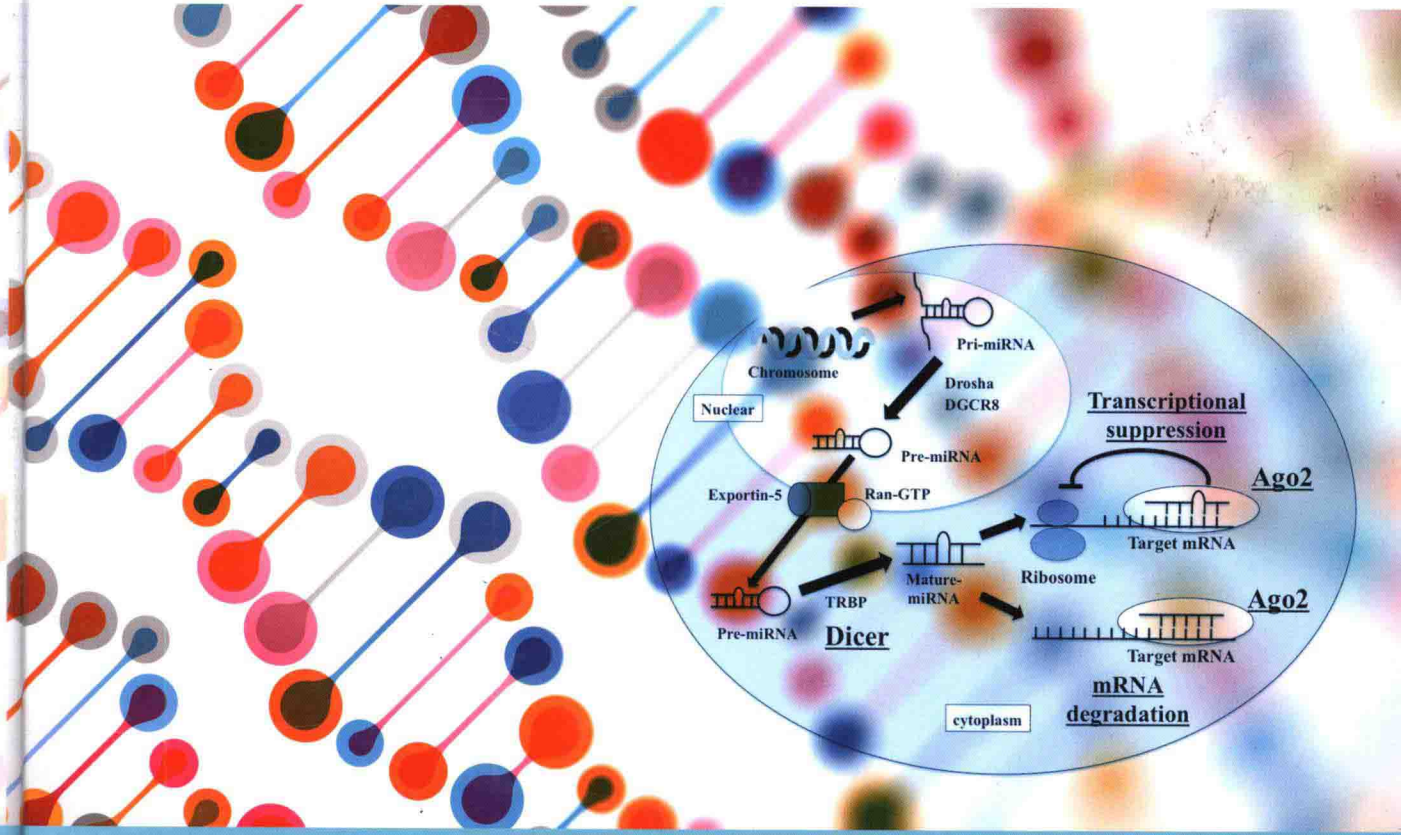
Editor SAURA C. SAHU

microRNAs in Toxicology and Medicine



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Editor

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microRNAs in Toxicology and Medicine

I lovingly dedicate this book to:

My parents, Gopinath and Ichhamoni, for their gifts of life, love and living examples

My wife, Jharana, for her life-long friendship, love and support, as well as for her patience and understanding of the long hours spent at home on planning, writing and editing this book.

My children, Megha, Sudhir and Subir, for their love and care

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Preface

During the past decade it has become increasingly obvious that microRNAs regulate gene expressions and control many developmental and cellular processes in the eukaryotic organisms. Recent studies strongly suggest that they are likely to play important roles in a wide range of human diseases including cancer. As a result they have become an important component of the molecular mechanisms of the disease processes. Also, published reports strongly suggest that they are expected to play important roles in cellular response to xenobiotic stress affecting expression of microRNA as a mechanism of adaptation and, therefore, they have attracted great interest in toxicology. Thus microRNAs play an important role in toxicogenomics.

The importance of this field of research is evidenced by the increasing number of contributions published each year. It becomes increasingly clear that developments in this field are moving so rapidly that new means are needed to report the status of current ongoing research activities. The contributions presented in this monograph represent a collaborative effort by international experts working in this emerging field of science.

The main purpose of this book is to assemble up-to-date, state-of-the-art information on microRNAs presented by internationally recognized experts in a single edition. Therefore, I sincerely hope that this book will provide an authoritative source of current information on microRNA research and prove useful to the scientists interested in this scientific discipline throughout the world. It is my sincere hope that the information presented in this book will serve as a stimulus to all the investigators interested in this area of research. Also it should be of interest to a variety of other scientific disciplines including toxicology, medicine, and pharmacology, as well as food, drug, and other regulatory sciences.

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