New Advances on Disease Biomarkers and Molecular Targets in Biomedicine

Nikki P. Lee • C.Y. Cheng • John M. Luk
Editors

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Preface

Biomarkers and molecular targets are two indispensable themes in diverse disciplines of research and development in modern medicine. Insights derived from these studies would impact on current therapies or management of human diseases, as well as translation of studies from lab bench to clinical practices for improving health of patients. Advances in research over the past decades have led to a remarkable increase in understanding of disease etiologies/pathological conditions, preventive measures and treatment options, management of diseases, in particularly cancers and unexplained infertility in men, however still remain a major hurdle nowadays. Still much work remains to be done taking the advantage of recent advances in biotechnologies, proteomics, and genomics.

This monograph summarizes the latest research in various aspects of biomarkers and molecular targets ranging from studies in biomolecules, cellular, and/or signaling pathways that regulate disease metabolisms and mechanisms, with a hope to identify leading disease-specific biomarkers and therapeutic targets for predicting diagnosis and prognosis, classifying therapeutic responses, and enhancing treatment efficacy.

We hope that this book can be an introduction for students and interns on the breakthroughs of biomedical research, a reference work for researchers on their topics of interest, a comprehensive guide for clinicians on the updates in the field, and for those with passion in science and research who want to gain an insight in this rapidly developing area. In this expanding era of scientific discovery, the concepts and ideas discussed here will be revised and augmented periodically. It is our goal that an integration of the existing knowledge with new evolving concepts from the literatures in the years to come can promote future progress and bridge the gap between findings in the laboratory and translational medicine.

This book cannot be published without the enthusiasm and dedication of all the contributing authors, who are willing to use their valuable time to share their knowledge and wisdom with our readers through this monograph. More importantly, we

would like to express our sincere thanks to all the staff at Springer, in particular Mindy Okura-Marszycki, Aleta Kalkstein, and Renata Hutter, for their efforts and dedication in working with us selflessly during the preparation and production of this book.

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