New Books

RNA Therapeutics. Function, Design, and Delivery Methods in Molecular Biology 629. John M. Walker, Series Editor

Edited by Mouldy Sioud. 2010. 542 pp.; 100 figs; 15 tabs. HARD COVER. EUR 109,95 (net price); CHF 158,00; GBP 99,00. ISBN 978-1-60761-656-6

Central to the synthesis of proteins, the performance of catalysis, and many other physiological processes, the aberrant expression of which can be linked to human diseases including cancers, RNA has proven to be key target for therapeutics as well as a tool for therapy. In RNA Therapeutics. Function, Design, and Delivery, expert contributors from a broad spectrum of scientific backgrounds highlight the roles that messenger RNAs and small RNAs can play in biology and medicine. While covering the five major RNA-based drugs, namely the use of ribozymes to cleave and/or correct mRNA transcript, the use of siRNA for targeted silencing of gene transcripts, the use of aptamers, like short RNA molecules, for neutralizing the protein functions, the use of mRNA-transfected DSs to activate immune system against tumor cells, as well as the use of RNA to reprogram T and/or DC cell function, this extensive volume brings together the fields of coding (mRNA) and non-coding RNA such as rybozymes, RNAse P, siRNAs, and miRNAs into one convenient source. Written in the highly successful Methods and Molecular Biology series format, the cutting-edge protocol chapters contain introductions to their respective topics, lists of the necessary materials and reagents, step-by-step, readily reproducible laboratory protocols, and practical tips on the troubleshooting and avoiding known pitfalls. Also, the book contains several excellent reviews for teaching purposes.

Authoritative and comprehensive, RNA Therapeutics:

Function, Design, and Delivery provides key models and tools which will assist researchers in increasing our understanding of RNA functions, modifications, and their involvement in diseases in order to lead to the design of vital new RNA-based therapeutics.

The handbook of biomarkers

Edited by Kewal K. Jain. Springer Verlag. 2010. ISBN 978-1-60761-686-3

Of the thousands of biomarkers that are currently being discovered, relatively few are being validated for further applications, and the potential of a biomarker can be quite difficult to evaluate. To aid in this imperative research, Dr. Kewal K. Jains's Handbook of Biomarkers thoroughly describes many different types of biomarkers and their discovery using various "-omics" technologies, such as proteomics and metabolomics, along with the background information needed for the evaluation of biomarkers as well as the essential precedures for their validation and use in clinical trials. With biomarkers described first according to technologies and then according to various diseases, this detailed book features the key correlations between diseases and classifications of biomarkers, which provides the reader with a guide to sort out current and future biomarkers.

Comprehensive and cutting-edge, the Handbook of Biomarkers serves as a vital guide to furthering our understanding of biomarkers, which, by facilitating the combination of therapeutics with diagnostics, promise to play an important role in the development of personalized medicine, one of the most important emerging trends in healthcare today.