This book forms part of a valuable series covering a variety of aspects of biomedically-orientated cancer research. The series generally provides state-of-the-art summaries on topical areas. In this edition, the editors have included five papers on diverse topics authored by leading experts in their field. At least two of these chapters provide a particularly topical update on two areas that are of great clinical interest, namely the BCR-ABL tyrosine kinase inhibitor, Imatinib and Histone Deacetylase Inhibitors, which are increasingly finding their way into clinical trials. The other three papers cover prostate cancer and the Met Hepatocyte Growth Factor Receptor, Keratinocyte Growth Factor/FGF7 (KGF) and its potential role in epithelial protection and repair and the Raf-1 Kinase Inhibitor Protein (RKIP).

The paper by Brian Druker provides an informative overview of the molecular biology underpinning chronic myeloid leukemia, development of the BCR-ABL inhibitor Imatinib and pertinent clinical trial information. Important observations on mechanisms of drug resistance and relapse are presented, as well as its increasing role in other diseases, such as gastrointestinal stromal tumours. A personal perspective is provided on “lessons learned from clinical trials” on patient and dose selection, as well as translating the success of Imatinib to other cancers.

Paul Marks, Victoria Richon and colleagues provide a useful summary on the various classes of Histone Deacetylases and Histone Acetyltransferases (HDACs and HATs), which play a critical role in modulating chromatin structure and the pattern of gene transcription. Their recognised disruption in certain cancers is summarised, including the role that HDACs play in mediating oncogenic activity in certain tumour types including leukemia/lymphoma and breast cancer. An overview on the various HDAC inhibitors under development is provided, with some insights into their effect on gene expression, non-transcriptional effects and synergy with anticancer agents. Some data on xenograft models is reported, as well as an extensive list of clinical trials underway with a large number of HDAC inhibitors. Anecdotal evidence to date, provided from Phase I studies and early Phase II data suggest that HDAC Inhibitors are worthy of further investigation.

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