



THE GENETIC BASIS OF HUMAN CANCER

Editors: Bert Vogelstein and Kenneth W. Kinzler
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Research on the etiology of cancer is one of the busiest endeavours in the biomedical sciences. Over the past half century, different disciplines have evolved to represent the major research fronts probing for the causes of human cancer. The field has become enormously complex with the contribution of molecular and cell biologists, pathologists, geneticists, epidemiologists, and other health professionals. Regardless of the approach that one may use to study cancer etiology, be it at the molecular level or at the societal level, the fundamental tenet held today is that cancer is a disease of DNA. It has its roots on the damage accumulated in strategic genes as a result of physical, chemical, or biological insults. The homeostatic process that counters the accumulation of DNA damage in a target cell to prevent it from undergoing malignant transformation requires an intricate and delicate balance of forces, represented by signalling and sensing mechanisms that aim at restoring genome integrity or, if that cannot be achieved, will trigger cell death. Much of the genetic basis of cancer stems from the inter-individual heterogeneity in the control of this process. Studying the source of this heterogeneity has been the domain of cancer geneticists. Their findings, particularly in the past 30 years, have led to more rational approaches to research on the environmental causes of cancer and to new strategies for cancer prevention and control.

Bringing together the information from the multiple fronts of research on cancer genetics is a daunting task, to say the least. Vogelstein's and Kinzler's "**The Genetic Basis of Human Cancer**" is among the most authorita-

tive and comprehensive sources of information in this vast field. In its Second Edition (the First was published in 1998), this book contains a wealth of information that will appeal to basic scientists, cancer epidemiologists, and oncologists. Its nearly 100 authors are among the world's most knowledgeable scientists working on one or more facets of cancer genetics. Their contributions appear in 52 chapters distributed into logically-structured sections that cover (i) basic concepts in cancer genetics, (ii) controls of the cell cycle, (iii) familial cancer syndromes, and (iv) cancer by site. The editors' novel nomenclature that groups tumour suppressor genes into either "gatekeepers" or "caretakers" is used to further divide the section on familial cancers on the basis of the type of genes that are affected. Each chapter is written as an independent comprehensive review with lavish documentation and an extensive reference list. Given the size of this book, at 800 pages and small typeface, a most attractive feature is the concise summary of highlights preceding each chapter. These are written as numbered statements that capture the most noteworthy passages as take-home lessons.

Because of its didactic structuring, this book can be used as a reference for individual chapters (e.g., those in Sections 3 and 4) or as source of integrated information on the fundamentals of cancer genetics (e.g., Sections 1 and 2). A detailed alphabetical Index allows readers to find specific terms and concepts described across multiple chapters; the one supplied is as detailed as one could possibly wish, for a technically complex tome such as "**The Genetic Basis of Human Cancer**".

In summary, this Second Edition of Vogelstein's and Kinzler's well-known resource is likely to become a popular item in the personal library of cancer geneticists, oncologists, cancer epidemiologists, and basic cancer researchers. Graduate students and oncology fellows may also find this book an excellent source of cutting-edge information on the genetics of cancer. Oncology teachers will appreciate the informative summary of highlights in the beginning of each chapter.

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