Cancer Biology

A concise yet thorough account of cancer biology.

This book emphasizes the cellular and molecular mechanisms involved in the transformation of normal into malignant cells, the invasiveness of cancer cells into host tissues, and the metastatic spread of cancer cells in the host organism. It also defines the fundamental pathophysiological changes that occur in tumor tissue and in the host animal or patient. The approach throughout the book is to discuss the historical development of a field, citing the key experimental advances to the present day, and to evaluate the current evidence that best supports or rules out concepts of the molecular and cellular mechanisms regulating cancer cell behavior. For all the areas of fundamental cancer research, an effort has been made to relate basic research findings to the clinical disease states. The book is well illustrated with schematic diagrams and actual research data to demonstrate points made in the text, and there is an extensive, up-to-date bibliography.

In this revision, Dr. Ruddon has organized his text to provide more integrated discussion of the many topics covered in the third edition. At the same time, he has included much new material on molecular genetics and genetic diagnosis (e.g., DNA microarrays to mark tumors), RNA interference, stem cells, cell cycle regulation, angiogenesis, etc.