

## Books to cut your teeth on

Gordon Peters

**Oncogenes and the Molecular Origins of Cancer.** By Robert A. Weinberg. *Cold Spring Harbor Laboratory: 1989. Pp. 367. Hbk \$97, pbk \$55.*

**Oncogenes.** By Geoffrey M. Cooper. *Jones and Bartlett: 1990. Pp. 323. \$50. Distributed in the UK by Chapman and Hall. £34.*

THE fundamental importance of proto-oncogenes in the control of cell growth and differentiation, as well as the aberrations that lead to cancer, make the study of these genes one of the most fruitful and stimulating areas of current biomedical research. Books that attract newcomers to the field, spark off new ideas or provide accessible sources of information are therefore important and welcome. Curiously, although both these volumes aspire to serve the same communities, and cover essentially the same material, they are as different in style as the major protagonists.

Bob Weinberg, in his typically eloquent preface to *Oncogenes and the Molecular Origins of Cancer*, for which he serves as editor and contributor, lyrically ponders the dilemmas faced by anyone embarking on such an enterprise. For whom should the book be written, how should it be structured, and when is the ideal time to tackle such a broad and rapidly expanding topic? A year in which the Nobel committee has acknowledged the significance of cellular oncogenes seems a fortunate choice, particularly as the recipients of the prize feature among Weinberg's coauthors. Although library shelves are laden with competent review articles and chapters in books on every aspect of the subject, many written by contributors to the present volume, an authoritative compendium has been long overdue. Cold Spring Harbor Laboratory Press has a history of producing timely texts that become popular sources of reference, and this one will be no exception.

Weinberg has done well to coordinate such an impressive list of acknowledged experts, but in reality the book is nothing more than a series of good, substantial reviews. Any multi-author text suffers from a lack of continuity, as each writer constructs a chapter that can be read in isolation, and each will have personal views on what constitutes "a statement of the ideas that shape current research in this rapidly moving field". There is inevitable repetition, the diagrams and tables are sporadic and of variable quality; despite the editor's desire to avoid "exhaustive, encyclopedic recounting", the

text is heavily referenced. Few citations are as recent as 1989, but this is to be expected in an opus of this magnitude. Some semblance of order does prevail, as the first seven chapters take us from growth factors on the outside of the cell to transcription factors in the nucleus, after a stiff and all-embracing overview by Harold Varmus. But the later chapters on DNA viruses, tumour-suppressor genes, and the closing foray into human cancer by Mike Bishop, appear as important additions rather than part of a logical scheme. Thus, while the chapters are of consistently high quality, the book as a whole is heavy going for those with only a passing curiosity in oncogenes. Weinberg's noble ambition that it should serve as a "recruiting pamphlet, a device to interest and excite those outside the field" is unlikely to be fulfilled, but any conscientious conscript should take the time to read this informative volume.

In a curious twist of fate, the monograph prepared by Weinberg's erstwhile scientific rival, Geoff Cooper, is a much more approachable work. Although it takes a more superficial and personalized view of the subject, written in a uniform style that the reader may like or dislike, it avoids the need to split the subject according to the expertise of different contributors. The benefits are a greater sense of logic and continuity, leading the uninitiated through sections dealing with the nature of the cancer cell, tumour viruses, viral and cellular oncogenes, and the normal functions of proto-oncogenes.

Although Cooper's prose is rather dry, the text is enlivened by personal credits and dates that confirm his acquaintance with the main players in the field as well as the key experiments and seminal discoveries. It is also liberally illustrated, with diagrams and tables on almost every other page. Not all these figures are necessary or informative, but most are helpful and the effect is to speed the reader's progress through the historical unfolding of the subject. References are mercifully excluded from the text, again making it easier to read, but each chapter concludes with a brief summary and a compilation of significant papers, divided according to subjects or concepts. The cognoscenti might choose to quibble with the exact choice or number of references, but there are enough to set the interested reader off on the right trail. All in all, Cooper has produced an admirable book that is above all a good read.

My advice to would-be novices is clear: cut your teeth on *Oncogenes* by Geoff Cooper before tackling the more solid fare offered by Weinberg and his illustrious collaborators. □

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