

Prostate Cancer: Signalling Networks, Genetics and New Treatment Strategies

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For an organ that is (usually) quite small, and without which at least half of the world's population can live quite comfortably, the prostate seems to be associated with an inordinate amount of confusion and ignorance. The look on a patient's face when he realises a digital rectal examination has nothing to do with a computer is only one example. Even those of us who are supposed to know something about the prostate are frequently fazed by whole new areas of biology we knew little about, often in the context of a new treatment being promoted in the media.

With that in mind, it was refreshing, if somewhat intimidating, to read this book. It has succeeded admirably in bringing together areas that the clinician usually skims over. The chapters move logically through mechanisms of carcinogenesis with a strong emphasis on the genetic and epigenetic factors involved. This is followed by a series of chapters describing the signalling pathways shown to be of relevance, many of which are non-canonical and overlap in unexpected ways. An example of this is a comprehensive description of androgen receptor biology and some of the clever ways by which prostate cancers evade androgen deprivation. Many of these still involve

the androgen receptor, but through ligand-independent mechanisms. The roles of other steroids such as estrogen and the critical biology of estrogen receptor sub-types in normal and malignant prostate physiology are described very well, raising important questions about novel approaches to hormonal therapy. The book concludes with chapters outlining recent advances in surgical, radiation and systemic treatments of prostate cancer.

As with most textbooks, this one suffers from its timing; it is already out of date in some key areas, such as abiraterone and MDV-3100 (where the companies but not the drugs are mentioned only in passing), cancer stem cell biology and signalling pathways (still very controversial but not addressed at all), familial prostate cancer (where there has been a veritable explosion in candidate genes and SNPs) and cancer immunology (reflecting my personal prejudice). There is some overlap in content between chapters, but this is probably unavoidable since similar issues have been approached by different chapter authors from different perspectives. The chapters covering surgery, radiation and systemic therapies are obviously a little out of date, however are excellent summaries of the key pivotal trials up to that point.

In the current era it is always possible to put together a more up-to-date snapshot of the literature, however this would require some serious Pubmed bashing and would still be a picture without perspective. For that alone, this book will be a useful addition to my collection and I will refer to it often.

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