

scission can occur, bleomycin requires the presence of trace amounts of ferrous ions under aerobic conditions, leading to the now widely held view that oxygen-free radicals are directly involved in these destructive processes. Experiments with a variety of radical scavengers as well as spin trapping experiments are described which implicate the superoxide radical as an intermediate in the formation of the more active hydroxyl radical. Closed covalent circular DNA has proved to be an extremely sensitive substrate for testing bleomycin-dependent free radical damage. The same bacteriophage PM2 DNA was used by most groups studying the interaction of bleomycin with DNA. Overlap was minimal and emphasis served to illustrate the sensitivity and importance of this new technique as a measure of antitumour activity as distinct from less specific functions such as antimicrobial killing.

The final section of this book describes some of the biological effects of the bleomycins with particular reference to their cytotoxic properties. Interstitial pulmonary fibrosis is frequently a serious clinical complication of bleomycin therapy, consequently efforts to minimise undesirable side effects have been attempted by structural modifications to the drug, addition of inhibitors and removal of competing metal ions.

This symposium, devoted entirely to the drug bleomycin, has been edited with care and skill to produce a book of considerable interest to biochemists working in the field of antitumour antibiotics.

J. M. Gutteridge

### *Steroid Hormones*

by D. B. Gower

Croom Helm; London, 1979

116 pages. £7.95 (hardback), £2.95 (paperback)

This short book is published as one in a series of books related to medicine by Croom Helm. While other books, also developed from lectures delivered to medical students have been published (e.g., *Biochemistry of Steroid Hormones*, edited by H. L. J. Makin, Blackwell Scientific, 1975) their cost probably put them beyond the reach of most students.

Included in the book *Steroid Hormones* is a chapter dealing with steroid structure with an introduction to the complexities of steroid nomenclature. One of the aims of the author was to provide an integrated approach to understanding the chemistry, biochemistry, physiology and endocrinology of steroid hormones and this has been achieved at a level suitable for undergraduates. Subsequent chapters include an introduction to the mechanisms of action of oestrogens and androgens. Some indication of the plasma levels of several steroids found in normal subjects is

given with an account of the factors involved in the control of steroid hormone production.

The last two chapters of the book are more clinically orientated although it is doubtful, if as suggested, that this book will serve, as is suggested, equally well for medical students as for clinicians in endocrinology and gynaecology. The distinction between Cushing's disease and Cushing's syndrome, discussed in the last chapter requires clarification, as this is a point that often causes confusion amongst medical students.

Although treatment of some topics is of necessity brief, and frequent reference is made to the more costly book edited by Makin, this short text can be recommended to supplement the lecture notes of students attending an introductory course on steroid hormones.

M. J. Reed