confined to the amino-terminal 53 amino acid residues, whereas the ability to form tetramers and to bind inducer requires the carboxy-terminal part of the repressor molecule. In a similar fashion, λ phage repressor seems also to contain two domains: an amino-terminal DNA-binding region and a carboxy-terminal domain needed for oligomerization and derepression.

Terry Platt has contributed a fine article on the tryptophan biosynthetic operon, which is regulated by a combination of repression at the operator and antitermination at the nearby 'attenuator'. Transcription termination provides a versatile and sensitive form of regulation, as the *trp* attenuator responds to changes in nucleotide sequence, to termination factor *rho* and even to the structure of tryptophan tRNA. Platt mentions the fact that the histidine biosynthetic 'operon' has no repressor nor operator and is controlled almost entirely by antitermination. Thus, the histidine operon would be worthy of a seperate article.

The chapter on phase variation provides the greatest novelty in the book, as the inversion of several hundred nucleotide base-pairs determines whether the H-1 or H-2 flagellar antigen is synthesised.

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Sexuality in man and animals

Sex, Hormones and Behaviour. Ciba Foundation Symposium No. 62. (New Series.) (Exerpta Medica: Amsterdam, Oxford and New York, 1979.) $41; Dfl.84.

THE purpose of this symposium was to explore, and extend, the zone of overlap between studies of human sexuality and experimental research on sexual behaviour in animals. The book contains fourteen papers, dealing mainly with aspects of sexual development, homosexuality, and the neuroendocrine regulation of heterosexual behaviour.

In many respects, the overlap between human and animal research in these areas is extensive and this is particularly apparent where studies of the non-human primates are concerned. The degree to which androgens and experiential factors influence the development of sex differences in human behaviour remains a controversial issue, as indicated by contributions from Ehrhardt, Meyer-Bahlburg and Green. Fresh insights into these problems could emerge from research on monkeys. Abbott and Hearn describe experiments on common marmosets which indicate that sexual differentiation of the brain by androgen occurs, at least partly, during postnatal life. In future it may be possible to use marmosets as models to study how androgens affect the developing brain of male primates.

Very little is known about the neuroendocrine control of human sexual behaviour in adulthood, or the extent to which steroid hormones, brain monoamines and peptides influence such behaviour. Contributions by Nieschlag, Bancroft and Skakkebaek describe the effects of androgens on human sexual behaviour, and Everitt presents new findings concerning monoamines and sexual behaviour in rhesus monkeys. The interplay between social factors, neuroendocrine mechanisms and sexual behaviour constitutes an important field of research which is explored by Keverne, in his paper on laboratory groups of talapoin monkeys.

Satisfactory animal models with which to study certain facets of human sexuality have yet to be defined. Homosexuality and transsexuality are specific examples. It is evident that approaches to the study and treatment of homosexuality advocated by Dörner at this symposium were not endorsed by some participants. In his paper, Beach provides thorough guidelines on the potential value and limitations of animals as subjects for research on homosexuality and heterosexual behaviour in man.

This is an excellent book. One minor criticism is that some contributors present purely qualitative papers, whereas the reader might find a quantitative treatment more useful. Discussion sessions between the participants are reported fully, as in other Ciba Foundation Symposia, and total almost 150 pages. These discussions greatly enhance and amplify the value of the papers, making this volume a valuable addition to the literature on sexual behaviour in man and animals.

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Atomic absorption spectroscopy

Atomic Absorption Spectroscopy. Second edition. By M. Salavin. Pp.193. (Wiley: New York and Chichester, UK, 1979.) £14; $26.

THIS monograph is the second edition of Volume 25 of a series on analytical chemistry and its applications edited by P.J. Elving, J.D. Winefordner and I.M. Kolthoff. As the first edition was written by Walter Slavin, son of the present author, Morris, they join that select company of father-and-son books so prized by collectors, but in reverse order.

In his preface the author states that this should be regarded as a new book on atomic absorption spectroscopy from a different perspective. The organisation and layout of the book, however, follow lines similar to the first edition but, naturally, in view of the developments that have occurred in the intervening eleven years, the material content of the sections has been brought up to date and in many cases completely rewritten. The additional areas covered include a section on electrothermal atomisation and greater emphasis is given to the chemical preparation of samples and to environmental applications. The author rightly draws attention to the neglected area of high precision analysis for major elemental constituents but offers little fresh guidance on how to achieve it. An appendix on commercial instrumentation contents itself with a list of eleven sources of relevant commercial equipment of which only four are actual suppliers of atomic absorption instruments. The information in this section is cursory and refrains from mentioning any European manufacturers.

The different perspective follows inevitably from the author's obvious experience in optical emission spectroscopy which by the same token demonstrates his unfamiliarity with the conventional terminology of atomic absorption spectroscopy. This makes the book slightly upsetting for practitioners of the art but more importantly sets a poor example for the newcomer or for the bench worker in atomic absorption spectroscopy, for whom the book is intended.

The book is written in an off-hand, chatty style, which would be refreshing enough were it not casual to the point of inaccuracy. The use of jargon from other disciplines — who outside the field of emission spectrometry knows what a direct-reader is? (p14) — is less than helpful. Many of the terms used are positively misleading, for example, the sample is "injected" (p11) and the flame is described as being "scanned" by a beam from a hollow-cathode discharge lamp (p9 and p27). Other errors are to be found — nitrous oxide is hardly a fuel (p11), reference 33 should be to Zaidel and in Table 3:1 (p53) 50% 0_2–50% N_2 would hardly make a satisfactory flame.

The book is easy to read and can be regarded more as an essay on the subject than as a satisfactory laboratory handbook especially in a field where a plethora of excellent textbooks already exists.

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