

CRISTOPHER K. ATTERWILL and JOHN D. FLACK (eds)  
**Endocrine Toxicology**  
 Cambridge University Press, Cambridge, 1992; 475 pp., £65.00 (\$110)

This is such an excellent volume that the appreciation printed on the back cover could be repeated by any reviewer without hesitation. It is the first target toxicology volume dedicated to endocrine toxicology and it covers the whole spectrum of known toxic effects on the endocrine system, ranging from small disturbances in hormonal secretion to full endocrine neoplasia. Its main characteristics are epitomized by the last chapter, which, under the title of 'The future: needs and opportunities', defines the place of endocrinology in toxicology and the inadequacy of routine toxicological procedures for the evaluation of direct or indirect toxic effects on the endocrine status and gives stimulating thoughts on future possibilities.

Between the introductory and closing chapters, the volume deals with hypothalamic and pituitary, thyroid and parathyroid, and adrenal and reproductive toxicology, dietary effects on endocrine tumours and the toxicology of the neuroendocrine system. As the studies of endocrine effects have not been an integral part of toxicological assessment, it is not surprising that most of the described endocrinal changes are neoplasms and most of them were discovered at necropsy. Behind every observed change there are complex processes and interactions between endocrine systems on the one hand and endocrine systems and other tissues on the other hand. The aim of the whole volume is to demonstrate the complexity of endocrine toxicology and to give a comprehensive source of information on the anatomy, physiology and toxicology of the endocrine glands that could help and stimulate experimental and clinical toxicologists in their research and also help others in the interpretation of research data.

Chapters have helpful illustrations and tables and up-to-date references. Readers are helped by an index with approximately 1600 entries.

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PETER K. GESSNER and TERESA GESSNER  
**Disulfiram and its Metabolite Diethyldithiocarbamate. Pharmacology and Status in the Treatment of Alcoholism, HIV Infection, AIDS and Heavy Metal Toxicity**  
 Chapman & Hall, London, 1992; 452 pp., £75.00

Disulfiram (DSSD) started its career as the active agent in an anti-scabies ointment and became famous as Antabuse for the treatment of alcoholism. The story of the birth of Antabuse is given in an amusing chapter in the appendix by one of the discoverers. The importance of DSSD as a pharmaceutical agent increased with its effectiveness against nickel dermatitis, acute nickel carbonyl intoxication, Wilson disease and radiation disease. However, this is not the end of an amazing career. Its metabolite, diethyldithiocarbamate (DSH), is now used as a modulator of cancer chemotherapy (e.g. against cisplatin toxicity) and an immunostimulant in the control of HIV infection. The experimental and clinical aspects of all these uses and also the chemistry, biochemistry, metabolism, kinetics and toxicity of DSSD and DSH are skilfully and comprehensively presented by the authors. Perhaps the only major omission is the interaction with amphetamine. The chapter on the disulfiram therapy of alcohol abuse is preceded by chapters on enzyme inhibitions and on the disulfiram-ethanol reaction. Other chapters deal with the effects on heavy metals, immunomodulatory effects, DSH as an immunostimulant, modulation of cancer therapy, and toxicology. Modulation of cytotoxicity, oxidative stress, radiation effects and hyperthermia are also discussed in a single chapter.

This well-written and carefully edited volume deserves the interest of toxicologists, pharmacologists, immunologists, biochemists and clinicians. There are approximately 12 000 references, followed by an author citation index and a subject index.

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H. N. NIGG and D. SIEGLER (eds)  
**Phytochemical Resources for Medicine and Agriculture**  
 Plenum Press, New York 1992; 445 pp., ISBN 0-306-44245-0 Price: \$195.00

The book derives from the proceedings of a symposium sponsored jointly by the Society for Economic Botany and the American Chemical Society Food and Natural Product subdivision during which, to quote the editors' words, 'it became obvious that, regardless of the discipline, we were all speaking the same language' and as a result of which 'we wanted the book to serve as an introductory text for courses and as a reference work for the future'. The text comprises thirteen contributions of variable quality and length. The medicinally oriented papers range from ancient poisons and the drug khat, through plant materials used in mummification, to a discussion of plants used in indigenous medicine and as sources of pharmaceutically important medicinal agents; there are also two papers dealing with the more specific areas of antiparasitic and antifungal compounds from plants. The contributions on agriculture-related topics include three on plant nematocidal, herbicidal and insecticidal principles and two on food plant constituents, including a very long one on toxicants. The final paper looks at future prospects and ends on an upbeat note. Taxonomic, chemical and subject indexes are provided.

There is some overlap in the various contributions dealing with medicinal agents (*Artemisia annua*, *Catharanthus roseus*, gossypol, etc. are discussed in several different places), which tighter editing could have avoided. Inevitably, in a text of such complexity there is a scattering of errors and typos, but most of these should be obvious (thebaine is *not* dimethyl-morphine, as stated on p. 39; the correct structure, on p. 40, makes this clear). Although the preface promises that the structure of every chemical will be included in the chapter in which it is mentioned, strychnine for one (p. 1) has missed out. The book is hardly an 'introductory text', and parts of it require considerable background knowledge to place what is being said in its full context. Strange it may be that the two groups took so long to find out that 'they spoke the same language', but the book does serve to remind readers of different disciplines that plants are more than just potential sources of medicinal agents or agricultural chemicals and that food plants are also sources of both medicinally effective and potentially dangerous substances.

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