which will be of interest and great value to workers in a variety of disciplines. It has been carefully edited, its presentations are well referenced and it contains a useful index.

G. WEBBE

Progress in Clinical Parasitology Vol. I

Edited by TSIEH SUN. 1989. W. W. Norton & Co. Ltd, London. Pp. xiii and 162. £42.00.

According to the editor's preface, this book is aimed at an American readership newly alerted to the importance of parasitic diseases by the seriousness of AIDS-related protozoal infections. This is to be the first in a series of monographs on clinical parasitology, produced to "bridge the gap between journals and textbooks by presenting comprehensive reviews soon after basic advances are made".

Volume I is a mixed bag of six diverse topics, three on protozoa and three on helminths. The chapters vary greatly in length, 14–46 pages, and subject matter—from a historical review of schistosomiasis control in China to an ultrastructural study of *Cryptosporidium*. The first two chapters are concerned with malaria. In the first of these W. A. Krotoski gives a scholarly, blow-by-blow account of the discovery of the hypnozoite stage in the malaria life-cycle. This important discovery, in which Dr Krotoski played a leading part, led to an understanding of the cause of relapses in *P. vivax* and *P. ovale* malaria and an appreciation of the clinical and therapeutic implications.

The second chapter is a multi-author review by L. William Scheibel and collaborators on Ca^{2+} /calmodulin (CaM) functions in *P. falciparum* and their implications for drug design. Evidence for the importance of Ca^{2+} and CaM to malaria parasites is reviewed and this is followed by a discussion of the author's own work which verified the presence of CaM in *P. falciparum* and detailed the effects exerted by Ca^{2+} antagonists. From this work, Ca^{2+} appears to play a major role in the metabolism of plasmodia; therefore, an understanding

of its regulation may aid in the rational development of new drugs as well as improved use of drug combinations. The reported activity of anti-CaM agents against a wide range of other parasites suggests that similar work on Ca^{2+} /CaM might likewise lead to the development of improved chemotherapy for other infections.

The next three chapters are on helminths. The first is a comprehensive, general review of onchocerciasis by D. W. Gibson, D. O. L. Duke and D. H. Connor. Most aspects are covered in this review, which gives an excellent overview of the disease and current knowledge of its pathogenesis and means of control.

This is followed by an interesting general review of the rare but potentially lethal zoonotic trichiuroid worm *Capillaria philippinensis*, a parasite first described only in 1968. This is one of the few helminths that multiplies in man. It occurs mainly in the Philippines and Thailand, and seems to be naturally a parasite of migratory fish-eating birds. Man becomes infected by eating raw fish and the case fatality, which originally averaged 10%, has been greatly reduced by the use of long-term mebendazole or albendazole treatment.

Chapter 5 is an account by Mao Shou-pai and Fu Sui, based mainly on the Chinese literature, of the successful efforts made from 1948 onwards to reduce the public health importance of *Schistosoma japonicum*. As in other countries, the main tool in the Chinese control programme is now praziquantel, in this case combined with local use of molluscicides.

The final chapter, by Ribeiro and colleagues, is an electronmicroscope study of the developmental stages of *Cryptosporidium* as seen in a human duodenal biopsy. This type of study can provide important insights into the intractable nature of the infection in the immunocompromised host and suggest possible reasons for its great severity. For example, the lack of sensitivity of *Cryptosporidium* to drugs may be related to its demonstrated intracellular, extracytoplasmic localisation, and the occurrence of an apparently auto-infective type of oocyst may contribute to the persistence of the infection in the immunocompromised host.

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