

## Platelet research

*Platelets in Biology and Pathology.* Edited by J. L. Gordon. Pp. 388. (North-Holland: Amsterdam and New York, 1977.) \$53.95; Dfl. 132.

THIS book is the first volume in a new series *Research Monographs in Cell and Tissue Physiology*, with J. T. Dingle as general Editor. This volume, written by recognised cognoscenti in the various areas of platelet research, may be considered as a collection of progress reports over the past decade's research, with emphasis on current work. J. L. Gordon is responsible for the excellent selective editing.

Few scientists, if any, working with platelets, can keep abreast of the progress in this very active and rapidly developing field. B. Maupins annotated bibliography on blood platelets, for example, contains about 1,300 references to work published in 1972. The authors of the present monograph have very effectively filtered the plethora of material and offer the reader a comprehensive survey of the present state of knowledge; they provide roughly 1,600 selected and useful

references.

The book is divided into two parts. Part one comprises an outline of fundamental platelet reactions, part two deals with platelet constituents, cellular control mechanisms and their biological significance. The first chapter in part one, "Blood platelets as multi-functional cells" (J. L. Gordon and A. J. Milner) is a well written appetiser, very fitting to the contents of the book. I am convinced that scientists to whom platelet research may seem a somewhat restricted subject, will acquire by reading these pages an informed interest in the numerous biological phenomena in which platelets are involved. The remainder of part one deals with platelet adhesion and aggregation (Baumgartner and Muggli) and the platelet release reaction (MacIntyre).

The book's second part brings together a great deal of valuable information on the platelet plasma membrane (Jamieson and Smith), lipids (Deykin), filaments and microtubules (Crawford), various platelet receptors (Mills and Macfarlane), biogenic amines (Drummond), platelets and thrombin (Majerus *et al.*), connective tissue and platelets (Jaffe),  $\beta$ -thromboglobulin (Moore and Pepper), platelets in immunological reactions (Brown),

prostaglandins (Smith and Silver), platelet proteinases (Ehrlich and Gordon) and platelet growth-stimulating factor (Ross *et al.*).

In general, the chapters are well balanced; they bring out points of significance and offer a great deal more than a mere catalogue of original sources of information. It is to be hoped that some of the messages of the book will be widely appreciated—namely, that we still know next to nothing about the physiological importance of the many *in vitro* platelet phenomena so eagerly studied at present; that enough information has accumulated on interspecies differences in platelet chemistry and behaviour to make generalisations difficult or impossible; and that animal models for the study of the pathogenesis of human pathological conditions involving platelets are therefore very difficult to establish.

I found this monograph stimulating and I recommend it to anyone wishing to acquire an overall impression of the major developments and current lines of thought in the platelet field.

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## Parasitic protozoa

*Parasitic Protozoa.* Vol. 1: Taxonomy, Kinetoplastids and Flagellates of Fish. Edited by Julius P. Kreier. Pp. xv+441. (Academic: New York and London, 1977.) \$35; £24.85.

THIS volume is the first of a series of four which are planned to present, in all, 40 chapters written individually by experts in each particular field and covering mainly the parasitic Protozoa but including also a number of organisms which are not, or only doubtfully, Protozoa, such as *Anaplasma*, *Eperythrozoon* and *Pneumocystis*. This is not so incongruous as might appear at first sight, as these organisms resemble the Protozoa in multiplying in their vertebrate host. The scope is, in fact, a welcome change from the more usual association of the Protozoa with only the helminths under the blanket term 'parasitology'.

The present volume contains 10 reviews, rather variable in length from about 25 to about 75 pages. The first two deal with taxonomy—respectively, with the position of the phylum Protozoa in the Animal Kingdom and with the internal classification of the phylum. The remainder deal exclusively, or predominantly with kinetoplastid flagellates and are rather variously defined. There are two defined purely taxonomically—the reviews of

*Leishmania* and *Trypanosoma cruzi*. *Trypanosoma* is otherwise treated in six reviews defined by pathogenicity in relation to host and to geographical distribution—those species causing diseases in man and other primates, or in cattle in sub-Saharan Africa or elsewhere, and those species generally regarded as 'non-pathogenic'. Finally, there is a treatment of the flagellate parasites of fish in which kinetoplastids figure largely but which also include dinoflagellates and polymastigids.

All the reviews are very readable, comprehensive and accurate treatments and (assuming their scope) are excellent summaries of the present states of knowledge for each field. Within the space provided for each review it is not possible to go into much discussion of matters which are still controversial, and so some statements will inevitably seem dogmatic on wider reading. Nevertheless, the reviews are all excellent lead-ins to their subjects and will be very useful for students and for research workers. The book is well produced, referenced and indexed. Its cost, nearly £25, seems high, even in these times, as it is only rather sparsely illustrated with a few line drawings and photographs.

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