

J. Vávra, V. Sprague (Eds): Biology of Microsporidia. Comparative Pathobiology (L. A. Bulla Jr., T. C. Cheng Eds.) vol. 1. Plenum Press, New York and London 1976, 371 pp. Price 37 \$.

This first of the two-volume treatise of microsporidiology comprises chapters on structure, life cycle, host-parasite relations and some other general aspects of research in microsporidia, including a most useful and up-to-date introduction in the methodology (chapter by J. Vávra and J. V. Maddox); the second volume next to appear in the series will deal with systematics. Half a century elapsed since Kudo's (1924) monograph on microsporidia, irrespective of a few monographic papers dealing only with some groups of microsporidia, and a modern reference book on this fascinating protozoan phylum has been badly needed. Recent years witnessed a steady increase of interest in this group of parasites, resulting in innumerable papers especially on their taxonomy, structure, biology and potential for use in biological control of pests (the latter being not yet successfully exploited to date). This necessitated a critical evaluation and summarization of the existing knowledge on this group of parasitic organisms, to help the beginner and stimulate the experienced reader. By a rather complete coverage the treatise succeeded in achieving this goal and although the individual chapters vary to some extent regarding the standard of their presentation, they prove to be reliable sources of information. There are two very good introductory chapters on structure and development of microsporidia (J. Vávra) revealing clearly what is known at present as well as critically stressing the gaps in our knowledge (e.g., the lasting enigma of the finest structure of the polar fila-

ment). Microsporidian physiology (E. Weidner) is understandably at its beginning phase. A short chapter is devoted to the extracorporeal ecology of microsporidia (J. P. Kramer). Chapters on the host-parasite relations to vertebrates (E. U. Canning) and invertebrates (J. Weiser) at the organismal level provide numerous useful facts on most of the important aspects of microsporidian infections in the respective host groups. R. Weissenberg presents a stimulating insight into the still neglected problem of the xenoparasitic complexes formed by microsporidia and their altered host cells; a problem of rising importance, mammalian microsporidia are also dealt with by M. Petri in respect to mammalian tumors. The chapter on epizootiology and microbial control (Y. Tanada) closes with reserved optimism as far as future impact of microsporidia in biological control is concerned. The book is concluded by a chapter on microsporidian type slide collection (B. E. Erickson) — a most meritorious matter — and by a glossary of terms used in microsporidiology.

Although the book is printed in an economy-minded way (including innumerable uncorrected misprints), photomicrographs are well reproduced and the standard of illustrations is very good. The book is an essential enrichment of protozoological literature, can be recommended to all parasitologists and insect pathologists and is of interest to cell biologists. It is a good start of the series of Comparative Pathobiology.

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