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BOOK REVIEW

WITTNER M. & WEISS L.M.: THE MICROSPORIDIA AND MICROSPORIDIOSIS. ASM- Press, Washington, 2000, 553 pp., 326 ill., 18 tab. ISBN 1-55581-147-7. Price USD 750.00.

This comprehensive monograph contains 17 chapters written by 32 authors. Microsporidia are a specific group of protists, well adapted to parasitic life, which attack protozoa, invertebrates and vertebrates. They lack mitochondria and are intracellular parasites with a very specific way of entering host cells by means of a polar tube coiled inside a spore, which serves to inject the germ into the interior of host cells. Their adverse effect on honey bees and silkworms was appreciated more than hundred years ago and the subject of an extensive study. Interest in these organisms is stimulated when they cause serious damage to human economy (destruction of bees, silkworms and fish), or as recently when they were shown to be opportunistic pathogens in immunosuppressed patients. The detection of several different microsporidia in man provoked this up-to-date monograph which summarizes the general knowledge on the group and their interaction with man.

The various chapters of the book give detailed descriptions of the microscopic and submicroscopic morphology of the species included in the phylum Microspora, accounts of their cycles of development and a comprehensive list of the genera with information on their morphology and distribution in hosts. The chapter on molecular biology and phylogeny summarizes the modern interpretation of their phylogeny and molecular diagnostics. The main part of the publication deals with microsporidia in man, clinical symptoms of intestinal, organ-located, cerebral and ocular infections. Other chapters define host-parasite relations and laboratory diagnosis of microsporidioses, and describe methods of cultivation and propagation using tissue culture, and in experimental hosts. A special chapter on microsporidia in higher vertebrates compares these microsporidia with those in man.

The reviews are up to date and a good starting point for future research. The well funded research on AIDS has given us a broader and deeper understanding of the role of microsporidia as oportunistic pathogens of man. Allthough these infections only become apparent because of immunosuppression, it is likely they are also present in healthy people, but only, give rise to short lasting symptomless infections. Further research will reveal more about their distribution and the effect of these parasites, which are well adapted for survival un-noticed in their hosts. For entomologists and insect pathologists the data presented on human pathogens and the summary of morphological data should stimulate further research on microsporidia.

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