

About this volume

The phylum Apicomplexa is characterized by the unique cell organisation of the zoites, the infective stages of unicellular parasites previously designated as Sporozoa. Apicomplexa includes Coccidian and Hematozoa well known for human and veterinary diseases they cause, such as malaria, toxoplasmosis, babesiosis, coccidiosis, and the large group of Gregarines, the early branching Apicomplexa. Gregarines are parasite of invertebrates and urochordates and they performed an extraordinary radiation from the marine and terrestrial hosts known from the Cambrian biodiversity explosion. After the basic publication in the *Traité de Zoologie* by Grassé in 1953, this second edition updates the knowledge with information provided by new technologies such as electron microscopy, biochemistry and molecular biology and to enlighten their high diversity of adaptation to invertebrate hosts living in a diversity of biotopes. The extracellular development of Gregarines, the considerable diversification of their cell cortex, their wide distribution in Annelids, Crustaceans, Echinoderms, Myriapods or Insects with about hundred thousands of species contribute to the understanding of many biological aspects of the pathogenic Apicomplexa. Since 1953, taxonomical reviews on Gregarines were published in the *Illustrated Guide of Protozoa*. In this supplement, there is a special emphasis on the hosts.

Contributors include: Stuart Goldstein, Ryoko Kuriyama, Gérard Prensier, Jiri Vavra, Lawrence Howard Bannister, Jean François Dubremetz.

About the Editors

Isabelle Desportes, Fellow of the Muséum National d'Histoire Naturelle, Paris, is known for her work on a wide range of unicellular parasites: Gregarines, Microsporidia, Haplosporidia, Paramyxidia, Myxosporidia. She is the author of chapters on the Phylum Apicomplexa (co-author E. Vivier) and the Phylum Paramyxa (co-author F.O. Perkins) in the *Handbook of Protoctists*, eds. Margulis, Corliss, Melkonian and Chapman, Jones and Bartlett Publ., 1989 and *The Biology of Microsporidia*, in: *Cryptosporidiosis and Microsporidiosis*, eds. Schmidt A. & Petry F., Karger AG, 2000. She was a member of the Nominating Committee of the International Society of Protistologists and of the Editorial board of the *European Journal of Protistology*, *Acta Protozoologica* and *Parasite*.

Joseph Schrével is Emeritus Professor at the Muséum National d'Histoire Naturelle, Paris. After his PhD on the biology and electron microscopy of the Gregarines of Polychaetes, he extended his studies on cell biology and biochemistry of other Apicomplexa like Plasmodium the causative agent of malaria, Babesia, different unicellular eukaryotes (Trypanosoma) and mammalian (cardiac and sperm) cells. He was member of the editorial board of: *Biology of the Cell* (Editor-in-Chief), *Parasitology Research*, *European Journal of Protistology*, *Journal of Ultrastructure Research* and the *Malarial Journal*. In 1993, he published "The Gregarines" (co-author M. Philippe) in *Parasite Protozoa*, ed. Kreier J, volume 4, Academic Press.

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