
George Salt: The Cellular Defence Reactions of Insects. Cambridge Monographs in Experimental Biology No. 16. Cambridge University Press, 118 pp., 10 Figs., 4 Plates, 1970

Insects meet in their environment with many possibilities of microbe infection or infestation with parasites. They resist these dangers by two main defence mechanisms — cellular reactions and serum responses. This monograph is devoted to cellular reactions. Its author has been engaged in those problems for more than 15 years and has summarized in this work knowledge and research results of his own as well as those of other specialists.

The book is divided into 8 chapters. A short introduction is followed by a chapter dealing with phagocytosis. Various forms of this process are discussed here such as types of blood cells, their properties and capabilities of phagocytosis, phagocytised organisms, effects on absorbed particles and on cells themselves, and efficiency of this process as a defence reaction. The third chapter is devoted to the encapsulation process, development and properties of cellular and sheath capsules, effects of encapsulation on affected organisms and efficiency of this defence reaction. The subsequent chapter deals with nodule formation — a reaction which is a combination of both said above. The fifth chapter

offers a view of both phagocytosed and encapsulated objects. The following chapter covers the reactions of insect blood cells, problems of contact stimulus, adhesion, cohesion, aggregation and further capsule development. The seventh chapter is devoted to cellular reactions and immunity, to the problems of adaptability and specificity of these reactions. The final chapter presents a comparison between defence reactions of insects and vertebrates. The monograph is concluded by abundant references, an index of organisms in accordance with their system, and a subject index.

The book offers and evaluates an ample factographic material. It is well arranged, but it would be improved if more illustrating documents were added. The parasitologist will be interested primarily in some paragraphs dealing with insect defence reactions to the presence of zooparasites. Due to its qualities the book will certainly attract many readers, particularly among entomologists. Its publication is welcome.

Dr. V. Černý, CSc.