

Cellular Interactions in Symbiosis and Parasitism

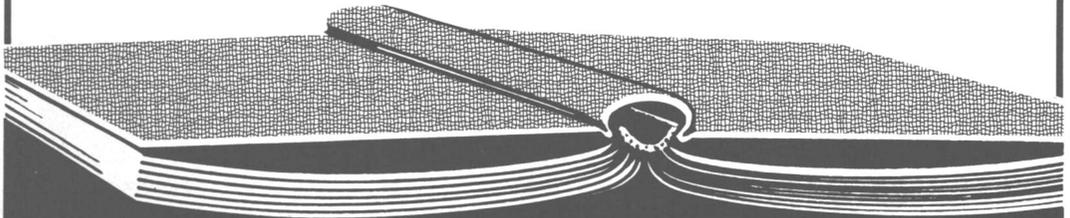
Edited by Clayton B. Cook, Peter W. Pappas, and Emanuel D. Rudolph. The study of symbiotic associations has increasingly emphasized cellular aspects; and it is now clear that cellular phenomena provide the basis for understanding many symbiotic and parasitic interactions. Symbiologists and parasitologists routinely apply the techniques of cell biology to their particular disciplines; and, as a result, new questions arise with regard to both symbiotic relationships and relevant cellular events. The present volume examines cellular processes in several well-studied symbiotic systems: lichens, host-parasite relationships, algae-invertebrate symbioses, endomycorrhizae, and microbial associations. Three general types of interactions are considered, and several cellular themes are evident: the recognition of symbionts and parasites at the cellular level; the interaction of symbionts and parasites with the cellular defense mechanisms of hosts; cellular mechanisms for nutrient uptake from the environment and for translocation between partners; and genetic interactions between partners. *Ohio State University Biosciences Colloquia, no. 5. Illus.*

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Gene Structure and Expression

Edited by D. H. Dean, L. F. Johnson, P. C. Kimball, and P. S. Perlman. Recombinant DNA technology has had an enormous impact on research in the biological sciences. It has facilitated the development of rapid and simple methods of DNA sequence determination, thereby permitting a detailed analysis of the organization of structural genes and their regulatory sequences. It has also permitted the restructuring of genes, the purification and amplification of a single DNA fragment from a complicated mixture, and even the expression of natural and artificial genes in a variety of host organisms. The theoretical as well as the practical importance of recombinant DNA research is firmly established. The papers in the present volume examine recent advances in restriction enzyme analysis, cloning vehicles, and DNA sequencing strategies, and provide detailed analyses of the structure and expression of genes in a variety of model systems ranging from viruses and bacteria to mammalian cells. *Ohio State University Biosciences Colloquia, no. 6. Illus.*

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