Book reviews

Doerfler, W. (ed.): The Molecular Biology of Adenoviruses 1. 30 Years of Adenovirus Research 1953–1983. Current Topics in Microbiology and Immunology, Vol. 109. Berlin, Heidelberg, New York, Tokyo: Springer 1983. xii + 232 pp., 69 figs. Hard bound DM 118,–.

Since adenoviruses were discovered in 1953 by Rowe and his colleagues more than 40 types from human origins and numerous types from other species have been isolated. Not only because of their clinical significance – frequently causing respiratory-enteral syndromes – but also for their relationship to oncogene transformation as well as the possible mutagene effect of some types on host cells or host organisms are adenoviruses of high scientific interest. It is the aim of this first of three volumes on the molecular biology of adenoviruses to provide a comprehensive survey in this field. In the last 30 years the high potential of adenoviruses as research tools in molecular and cellular biology of eukaryotic cells has been recognized. By this it was possible to develop new principles in biology as the concept of transforming genes, the splicing of RNA, a new mode of DNA replication, and many other aspects. The first volume contains reviews on structure, DNA replication, transcription, as well as contributions to oncogenic transformation and the mechanism of recombination between adenoviral and cellular DNA's written by excellent specialists involved in this research. The papers provide deep insights into the molecular biology of this virus group. The importance of adenovirus research on the studies of the molecular biology of eukaryotes can be compared with the bacteriophage lambda in investigations of prokaryotes, as Doerfler states in his preface. This volume, as surely also the following two volumes, will be an advantageous acquisition for further studies in this field.

H. Stäber, Berlin

Goldstein, I.J.; Etzler, M.E. (eds.): Chemical Taxonomy, Molecular Biology and Function of Plant Lectins. Proc. of a Symposium, Sponsored by E. Y. Lab. May 31–June 3, 1983. Asilomar, California. In: Progress in Clinical and Biological Research, Vol. 138. New York: Alan R. Liss. 1983. 298 pp., several figs. and tabs.

This work results from a symposium held in 1983 in Asilomar, USA. More than 60 scientists contributed to this report, providing a mosaic of 19 articles and 12 posters. In fact, volume 138 of the thematical serial "Progress in clinical and biological research" is an outline of recent studies on plant lectins. A broad field of subjects dealing with plant lectins are discussed: molecular structures, genetical background, cellular localisation, taxonomical grouping of plant lectins sources, binding capacities of lectins and propositions about their biological functions.

In her introduction, Etzler shows relations between the different specific topics of the programm, but scarcely succeeds in creating a link between these single talks, which are presented as independant chapters. The information is mostly concentrated upon research results from the last 6 years and the conclusions are brief and clear. The lists of references are detailed though strictly relevant. Obviously this compiled, concrete style did not leave much room for general extension and hypothetical abstraction. An interesting exception to this rule are the models given by Anderson et al. and Dazzo et al. upon the role of lectins in recognition processes. It is a pity that the symposium report is not concluded by an exchange of viewpoints and a formulation of highpoint questions coming from the – famous – contributors. Nevertheless this volume remains a very complete source of basic and background information of high quality for all chemists and biologists working with plant lectins. It provides an useful link between handbooks and reviews or short articles.

E.S. Pierson, Nijmegen