Book Reviews

Lohmann, K.; Schubert, L.: Selektive DNS-Vermehrung während der frühembryonalen Differenzierung des Teichmolchs *Triturus vulgaris.* Ein Beitrag zur Frage der Genom-Konstanz. Opladen: Westdeutscher Verlag 1981. IV, 42 pp., 9 figs. Soft bound DM 10.–.

The reading of this book raises the question of just what is the purpose of the "Research Reports" of Nordrhein-Westfalen, edited by the minister for Science and Research. If this publication is supposed to reflect the level of science in this country, then one could without hesitation abolish the respective budget and make better use of this money. I cannot avoid finding it annoying that official support is spent on such type of publications. Either there exists no advisory institution to control the quality of publications financed by the state, or it must be unaware of recent developments in cell and molecular biology. The content of this publication deals with a possible selective increase in nuclear DNA content during development of the new *Triturus vulgaris.* Though the observation of a potential increase in genome size in particular developmental stages might be of fundamental interest extending the spectrum of variation in genome constitution connected with differention processes, it has been approached with entirely inadequate techniques. The methodological approach does simply not relate to the development in molecular biology over the past 5–8 years. Even though the techniques might have been adequate 8 years ago, the experimentation is unacceptable: at no level have the experiments been carried out to a final state but instead they remain at the level of preliminary evidence. None of the techniques applied has been varied to the full extent of their power of resolution or application. It appears that the researchers lacked adequate training and advise in their work. In view of the financial situation of the research at Universities I find it unacceptable to support this quality of work. W. Hennig, Nijmegen

Birge, E.A.: Bacterial and Bacteriophage Genetics – An Introduction. Berlin, Heidelberg, New York: Springer 1981. 359 pp., 111 figs. Hard bound $ 25.70.

As it is indicated in the title of the book and emphasized in the preface, this book is really an introduction and nothing more. However, it is a very good one. First of all, the composition of the book is well proportioned. The difficulty the author had to cope with while writing this book was how to give a comprehensive review of the various methods developed and of the huge amounts of results obtained in such a wide field as bacterial and bacteriophage genetics in less than 400 pages. The author has solved this problem probably in the best way: in each chapter he describes only one prototype system in detail in order to illustrate the point he wants to discuss, while all the other similar systems are mentioned briefly, sometimes summarized only in tables, and only the differences between these systems and the prototype one are emphasized. The result of this is a clear, concise but still a comprehensive review of the field, and gives the reader excellent insight into the main points of bacterial and bacteriophage genetics. Accordingly, both classical and the newly developed genetic techniques are discussed: conjugation, transduction, transformation as well as plasmid induced chromosome mobilization, transpositions, etc. (although I might have paid a little more attention to bacterial protoplast fusion because of its general applicability and potential practical importance). Similarly, in addition to the classical operon model, the genetic control of some of the more complex regulatory systems, such as attenuation is also described. Several chapters are dealing with the mechanisms of DNA repair and recombination as well as the various types of plasmids.

Of bacteriophages, T h and lambda are described in the most detailed way, but other prototype phage systems (Φx 174, RNA-containing phages, etc.) are discussed as well. Although only one chapter deals with gene splicing and cloning, basic principles and some standard systems are described.

The book will be useful to students or other readers who are not familiar with this field and who want to find more information on a particular problem as, at the end of each chapter, references are provided for both general (mainly review papers) and specialized papers. These references have been carefully, although arbitrarily selected, and certainly represent the most important topics of the field.

In this book the author presents his thoughts in a very clear, understandable, but at the same time, most precise way, and this is why this book is recommended first of all for students and teachers, but also for all those who are familiar with the topic. All might benefit from it. C. Kari, Szeged