Influenza: virus, vaccines and strategy

Edited by P. SELBY. 1976. London: Academic Press. Pp. 354. £9.00.

This volume comprises the proceedings of an International Working Group on Pandemic Influenza that met in January 1976 at Rougemont, Switzerland, under the auspices of the Sandoz Institute for Health and Socio-Economic Studies, to suggest studies and to propose solutions for the control of influenza epidemics and pandemics. The proceedings include 24 papers of which eight are concerned with epidemiology, virus strains, prevalence of antibody and surveillance of morbidity and mortality in Sweden, the United Kingdom and the United States. There are single papers on the pathogenesis of natural infection related to virulence and host resistance, on viral structure and replication, and on chemoprophylaxis. The laboratory and clinical assessment of inactivated whole virus, split or sub-unit vaccine and live vaccines are discussed, together with requirements of vaccine evaluation and licensing, with likely time schedules between the emergence of a new strain and its production and distribution for general use. The final section of five papers discusses cost effectiveness of vaccination, vaccination strategy and the acceptance of vaccination by the elderly, by doctors and by the general public.

This is a useful collection of well presented reports. Unfortunately, rapid developments in the field and the emergence of swine influenza, which is mentioned only as an epilogue, lessen its importance.

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Microbiology-1976

Edited by D. SCHLESSINGER. 1976. Washington, D.C.: American Society for Microbiology. Pp. viii and 587. US \$22.00.

The major part of "Microbiology-1976" consists of papers presented to a Symposium of the American Society for Microbiology entitled "Bacilli: biochemical genetics, physiology and industrial applications". The meeting was held from 6-9 August 1975, and the 47 papers included in this volume cover about 450 pages, i.e., about three-quarters of the book. Even so, some of the papers on "Cell envelope and cell division in bacilli" have been held over and will appear in Microbiology-1977. It seems a pity not to have included structure with the other topics in this volume, but the authors and the organisers of the meeting are to be congratulated on bringing together such an excellent collection. Organisms of the genus *Bacillus* can hardly be considered neglected as there have been numerous publications on their characteristics, occurrence, classification, taxonomy and applications. However, this is the first compilation of papers that gives a comprehensive view of modern work.

The series begins quite rightly with Spitzizen's discovery of genetic transformation in *Bacillus subtilis* in 1958. The first paper by Young, Williams and Wilson takes the development of biochemical genetics from that point through the mapping of the chromosome, the isolation of bacteriophages and establishment of transduction systems up to the identification and use of restriction endonucleases. This introduces the newcomer to the wide range of genetic possibilities and these themes are followed up in detail by the authors of the subsequent papers. There are several papers on various aspects of DNA replication and protein synthesis. The papers on the bacteriophages of *B. subtilis*, *B. licheniformis* and other species include studies of the bacteriophages themselves and of their interactions with the bacterial hosts and also discuss particular applications for studies in molecular biology.

One of the attractions of the bacilli is that they are spore-formers and can be used as model systems for studying a simple but clearly defined process of differentiation. This topic is represented by only a few papers. Aspects of the regulation of enzyme synthesis appear under various guises and there is also some very interesting discussion on this topic in the papers concerned with industrial applications. The special characteristics of extracellular enzyme production are considered and it seemed surprising not to find penicillinase featuring more predominantly. However, the diligent reader who continues to the end of the book will find that there is quite a lot of overlap with Symposium III, and a paper on the secretion of extracellular enzymes, including the penicillinase of *B. licheniformis*, will be found there.