Virus Receptors

Receptors and Recognition, Series B: Volumes 7 and 8 (General Editors: P. Cuatrecasas and M. F. Greaves)

Bacterial Viruses: Volume 7, part 1
Edited by L. L. Randall and L. Philipson
Chapman and Hall; London, New York, 1980
viii + 148 pages. £15.00

Animal Viruses: Volume 8, part 2
Edited by K. Lonberg-Holm and L. Philipson
Chapman and Hall; London, New York, 1980
viii + 218 pages. £16.50

The appearance of the books in the distinguished series on receptors and recognition reflects the growing interest in this relatively neglected field of virus research. Virus receptors were the subject of one chapter in a previous volume on this series only 4 years ago [Maeger and Hughes (1977) vol. 4]. Most of the notable recent advances in the chemistry of the cell receptor sites (CRS) (to use the proposed terminology for the structures that bind on virions), are to be found in the field of bacterial viruses. The first part contains 8 well-written chapters, fully documented with hardly any overlap. To quote Linda L. Randall in the introduction ‘... anything which is exposed on the cell surface can be used by phages as receptors’. On the other hand, the large second part reflects the paucity of data on receptors in animal virology. It contains 11 chapters with considerable overlap in the material presented. Most of the text is concerned with the external virion proteins involved in receptor recognition, which is available in many virological reviews. However, this part consolidates the present knowledge and sets out the terminology, while the chapters on the quantitative aspects and the receptors of tumor viruses are outstanding.

I see no reason for separating the volume into 2 parts. The books are slim, and an integrated volume has many obvious advantages. On the whole, this volume is to be recommended to people with a special interest in cell receptors, and to virologists as a reference book.

K. Apostolov

DNA Tumor Viruses

Edited by John Tooze
Cold Spring Harbor Laboratory; New York, 1981

The importance of DNA tumour viruses is manifold. Because they transform mammalian cells causing malignant cancers they have been intensively studied as model systems for understanding the causes of cancer. But they are equally important model systems for those wishing to understand such a basic cellular mechanism as the control of the initiation and termination of DNA replication, the mechanisms of transcriptional control, RNA splicing, and messenger RNA processing, or the dynamics of molecular evolution. ‘DNA Tumor Viruses’ is a lucid and comprehensive survey of what was known of their molecular biology by mid-1979. It will be valuable to a great many biochemists and essential reading for anyone entering the field.

What is known about the 3 classes of DNA tumour
The new strain of the virus has forced the United Kingdom back into lockdown and is popping up across the United States and dozens of other countries. As the Wall Street Journal notes, this isn’t the first time that COVID mutations have resulted in a more transmissible strain of the virus: Scientists in July described a variant that over time displaced an older strain of coronavirus to become the dominant strain in the global pandemic. Experiments showed that variant, known as G614, replicated more quickly, but appeared to be just as susceptible to antibodies that target the earlier strain and wasn’t associated with more severe illness. Another new strain has been found in California. Receptors and Recognition. L. L. Randall, L. Philipson. John J. Holland. John J. Holland. Search for more articles by this author. PDF. Add to favorites. Download Citations. The Quarterly Review of Biology. Volume 57, Number 3 Sep., 1982. Published in association with Stony Brook University. Article DOI: https://doi.org/10.1086/412855. Copyright 1982 Stony Brook Foundation, Inc.