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BOOK REVIEW

Hepatitis B and D Protocols.

Methods in Molecular Medicine, in: Hamatake, R.K., Lau, J.Y.N. (Eds.), Humana Press, hardback.

Volume I: Detection, Genotypes and Characterization, 376 pages, ISBN 1-58829-105-7 (US\$125).

Volume II: Immunology, Model Systems and Clinical Studies, 600 pages, ISBN 1-58829-108-1 (US\$135).

The editors have assembled a comprehensive collection of laboratory protocols authored by leaders in the field. In general, the (almost 70) chapters provide thorough and authoritative descriptions of the techniques currently used in the study of hepatitis B and D viruses (HBV and HDV). In most of the chapters, the description of the methodology is detailed and includes equipment requirements and sources of reagents. However, some chapters would benefit from the inclusion of a figure illustrating a representative example of the data the technique is designed to produce. Several chapters deal with the non-human hepadnaviruses, particularly woodchuck hepatitis virus and duck hepatitis B virus (DHBV), which are used as models for HBV. A few chapters are devoid of methodology and simply provide concise reviews.

There are three sections in Volume I. The comprehensive first part covers the commercial assays and other methods available for detecting and quantitating the viral nucleic acids and proteins. The second, and shortest, part focuses on genotypes and variants of HBV (there is nothing on the genotypes of HDV). I believe this section would have benefited from a chapter discussing the nucleic acid databases containing HBV and HDV sequences, the programmes available for interrogating these databases, and algorithms to determine the genotype of novel viral sequences. Part III covers molecular biological methods used to characterise the replication of HBV and DHBV. While some chapters describe

techniques which may be used quite widely, others are somewhat esoteric and detail methodology pertaining to the particular research focus of the author's laboratory.

Volume II also is divided into three parts, the first dealing with virus-specific immunological and other host responses. By and large, these chapters provide excellent experimental detail in an area that has seen considerable progress over recent years. Part II covers *in vivo* (animal) and *in vitro* (cell culture) models, another 'hot' area. Research into HBV initially was hampered by the facts that the virus does not grow in established cell lines and infects only higher primates. These chapters provide an excellent description of the diverse model systems that continue to be developed. The final part deals with antiviral testing and clinical studies and, arguably, does not fit in so well as the other five. The chapters that deal with drug resistance would have been at home in part II of Volume I, whilst those that focus on the treatment of patients rather than laboratory techniques seem somewhat out of place in this book.

It is difficult to envisage a high sales volume at over \$250 (slightly cheaper for the online version) – a high price for the individual and cash-strapped academic libraries. Routine laboratories are likely to find the most relevant material in Volume I. An alternative is to purchase individual chapters online, although, at \$25 each, the price soon mounts up. Nonetheless, this may prove an attractive option to the researcher seeking to branch out into a new area. In conclusion, a very useful resource, if you can afford it!

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