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Book review

The Molecular Medicine of Viral Hepatitis
Editors: T.J. Harrison and A.J. Zuckerman, 1997. Wiley, New York, 271 pages.

Viral hepatitis is one of the world's leading infectious disease threats to the public health. For example, in spite of an effective vaccine, more then 350 million people are chronic carriers of hepatitis B virus (HBV); of which as many as 100 million are expected to die from liver disease. The incidence of hepatitis C virus (HCV) infection is increasing in the developed countries at an alarming rate, with possibly 4 million people infected in the US, alone. Complications from HCV are now among the leading causes for liver transplantation in the US. Hepatitis D virus (HDV), which can fatally exacerbate chronic HBV infection, represents a remarkable example of medically relevant viral pseudotype formation. Although hepatitis A virus (HAV) usually does not cause fatal infections, a useful vaccine now exits. Moreover, the dynamics of disease emergence makes it likely that despite our best efforts to sanitize the transfused blood supply and promote public awareness about good preventive practices, we must be vigilant, prepared and open minded to detect new etiologic agents of hepatitis, as they emerge. Clinical and basic science advances are relentlessly bringing viral hepatitis into center of virology.

Thus, from the epidemiological perspective, as well as the increasing availability of therapeutic and immunization options, it is all the more important that the care giver and student of virology alike to be well informed about viral hepatitis.

A book that bridges the gap between current clinical and molecular biological understanding of viral hepatitis is certainly welcome. 'The Molecular Medicine of Viral Hepatitis' by T.J. Harrison and A.J. Zuckerman attempts such an ambitious goal. While far from perfect, the editors have certainly taken a step in the right direction. The laudable effort is to comprehensively bring the issues of vaccine and therapy resistant mutants, epidemiology molecular biology regarding HAV, HBV, HCV, HDV and HEV under a single cover. This is an ambitious goal and despite some heterogeneity in the 15 chapters in depth, quality and style, a useful resource has been provided. For the most part, the book offers more of a research and viral perspective on the current issues of viral hepatitis, rather than a study of 'molecular medicine' as implied by the title. It's real value, however, is to consolidate a series of reviews of the five indicated viruses into a single book. The information is thus concentrated and, unlike the situation in encyclopedic works such as 'Field's Virology' (B. Fields, D. Knipe and P. Howley, Eds., Lippincott-Raven), the topic of viral hepatitis is isolated from the enormous universe of information about other infectious agents. Given the relative paucity and diffuseness of information about these viruses, consolidation and concentration alone, is valuable. The academic or highly motivated clinician needing a handy resource can economically find help in Zuckerman and Harrison. It is noted, however, for the most part, the work by Zuckerman and Harrison does not offer greater detail about viral hepatitis than does Field's. Moreover, some of its chapters are very similar to those in 'Viral Hepatitis' (A.J. Zuckerman and H.C. Thomas, 1993, Churchill Livingstone)—a book with greater depth. 'Hepadnaviruses' (W.S. Mason and C. Seeger, 1991, Current Topics in Microbiology and Im-

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munology, vol. 168, Springer Verlag) provides a more sophisticated molecular treatment, but is limited to hepadnaviruses and is now somewhat dated.

The contributors and editors of Zuckerman and Harrison are leaders in their disciplines, assuring that the chapters will provide cutting edge knowledge. The chapter by Lemon et al. on HAV attenuation is excellent and can stand alone, as can those by Kann and Gerlich (HBV replication) and Tong and Trepo (HBe minus mutants). The chapters by Taylor (HDV replication); Koshy (mechanism of hepatotcellular carcinoma) and Clarke and Darby (antivirals) are particularly insightful. From the perspective of antivirals, the Clarke and Darby chapter is broad minded, innovative but sadly too brief. The chapters on HCV are also very current but take a more clinical microbiological turn, perhaps reflecting the less developed state of knowledge about this virus.

However, the organization of the book is not ideal and the selection of chapter topics is eclectic, varying dramatically from virus to virus. It is appreciated that although all hepatitis viruses cause liver pathogenesis, each virus is as different as different organs of the body. Therefore, one can be sympathetic to an effort to unify reviews of disparate etiologic agents under one roof. Moreover, there are many other viral as well as non viral causes of infectious hepatitis which receive no mention in the book. On the other hand, there is considerable redundancy from chapter to chapter; with genetic maps and the obligatory epidemiological information repeated over and over again. A particularly disturbing flaw of the book, however, is the very limited number of references provided in the 'Further Reading' section of each chapter. A scholarly reader will be uncomfortable with the numerous scientific claims made in the text under-supported or (worse) entirely unsupported by citations. The degree to which this occurs varies from chapter to chapter, but references are, for the most part not offered. While this is understandable in an undergraduate text book, it is a disappointment in a scholarly anthology. The graphics in the book are usually relevant (a feature which is appreciated and can by no means be taken for granted) but unfortunately vary in quality.

Thus, as an instructional tool, one must be cautious with it's use, taking care to provide students with appropriate supplements. However, none of the limitations are fatal. Although the book is limited, it will have use as a reference for academics and sophisticated caregivers and an accessory in the instruction of hepatitis viruses provided other sources of information are offered.

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