Virus Hunter, by C.J. Peters and Mark Olshaker, Anchor Books, New York, 1997, $23.95.

This splendid book is part memoir, part autobiography, and part scientific history. It represents the partnership of the protagonist, C.J. Peters, with Mark Olshaker, a professional author and journalist. Dr. Peters is chief, Special Pathogens Branch, Division of Viral and Rickettsial Diseases, Centers for Disease Control and Prevention, the federal agency with responsibility for the public health aspects of infectious diseases in the United States.

Peters, a Hopkins-trained physician, has dedicated his professional career over the last 30 years to field and laboratory studies of hemorrhagic fever viruses. These exotic agents share several characteristics, including their extraordinary lethality in primates, their maintenance in zoonotic reservoirs that are often obscure, and their occurrence in remote regions of the world. Interest in the hemorrhagic fevers has expanded over the last quarter century because they exemplify the problem of emerging infectious diseases in its most dramatic and terrifying form. Twenty-five years ago, Michael Crichton coined the term "Andromeda strain" in a famous fictional treatment in which a rogue microbe threatens to produce a devastating global pandemic. The hemorrhagic fevers represent a potential real world example of such an Andromeda scenario.

The emergence of new infectious diseases has captured the attention of epidemiologists and public health workers in the last decade. Many episodes are associated with increasing human invasion of wild ecosystems, human-made alterations of existing ecosystems through the construction of dams, massive deforestation, agricultural revolutions, the search for fossil fuels, or the importation of wild animals into new and artificial habitats. These events may expose people to zoonotic viruses of animals that can cross the species barrier resulting in human infections and disease. The bad news is that viruses that cause relatively benign infections in their natural hosts often are much more virulent in a new species. The good news is that only rarely can zoonotic viruses be transmitted from person to person; therefore, the extent of such outbreaks is limited. A remote but alarming contingency is a novel pathogenic virus that could spread by direct human-to-human contact. In a few instances, this has happened with the hemorrhagic fever viruses, but all such outbreaks have been limited to a few generations of person-to-person spread, partly because of the use of barrier nursing and partly because of biologic forces that are poorly understood. If such a devastating infection were to transmit readily and escape efforts at containment, we could face unthinkable consequences, AIDS on a fast track.

Peters, in this chronicle of his personal encounters with hemorrhagic fever viruses, develops this thesis, and effectively explains the problems of emerging viral diseases. Furthermore, his often understated accounts convey an immediate sense of the dangers of emerging infections more dramatically than would any recitation of numbers and facts.

In my view, this book is a landmark memoir in the annals of infectious diseases. It has the immediacy of a personal account, stitching together a series of vignettes that build an unforgettable picture of the heroic aspect of microbiology at the end of the 20th century. Mark Olshaker, a professional writer, permits the author's personality to shine so that the book captures the essence of all great portraits: it conveys a true picture of an individual, "warts and all."

Finally, although the text may seem a bit rough in places, it develops a single consistent theme, which will be a major one in the next millennium, namely the potential dangers of unconsidered human manipulation of the fragile ecosystems on which depend our very survival as a species.

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