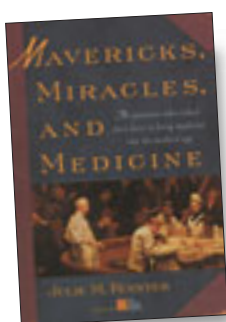


## ► **Mavericks, Miracles, and Medicine: The Pioneers Who Risked Their Lives to Bring Medicine into the Modern Age**

JULIE M. FENSTER

Carroll & Graf, New York, 2003, 304 pp,  
\$25.00 hardcover  
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Most of us remember being told by our teachers that modern science and medicine are the products of serious efforts by researchers, collaborating to link disparate facts into a chain of indisputable

logic. But it does not take long for anyone working in these fields to realize that progress is a fluke and typically comes at great personal expense. It often requires seemingly superhuman feats of daring, not the least of which is the willingness to make that “career-limiting move” for the sake of an ideal. It is examples of this spirit that Julie Fenster chronicles in her latest book, *Mavericks, Miracles, and Medicine*.

Fenster is an author and historian whose previous editorial outings include *Ether Day*, a study of the discovery of anesthesia (reviewed in the May 2002 issue of *Modern Drug Discovery*). In her newest book, which also serves as a companion for a miniseries on the History Channel, Fenster recounts the lives of 27 people who changed the face of modern medicine, ranging from the efforts of a 14th-century anatomist to the attempts of a geneticist to clone a sheep in the 1990s.

The book is broken into five sections. In *Understanding the Body*, Fenster looks at the evolution of medicine’s view of the human corpus. She describes how, with only rudimentary instruments and keen observation, Andreas Vesalius was able to describe human anatomy in such detail and so accurately that present-day clini-

cians are hard-pressed to find more than a handful of errors in his illustrations.

In the second section, *Germ Theory*, Fenster examines the growth of microbiology and describes how Hungarian physician Ignaz Semmelweis was able to discern a link between whether surgeons washed their hands and patient postoperative infections. Although common sense by today’s standards, this link between cleanliness and infection was considered too radical by the physicians of the day, and Semmelweis died, unlauded, in an insane asylum.

In the third section, *Magic Bullets*, Fenster offers stories about the people who tried to prevent or cure diseases such as smallpox, syphilis, and heart disease. In particular, she recounts the battle of egos that took place between Selman Waksman and Albert Schatz over who contributed what to the discovery of streptomycin, an antibiotic produced by a soil microbe, which eventually became a treatment for tuberculosis.

Fenster then moves, in *The Mind*, into an examination of the tenuous connection between body and identity, describing the efforts of various scientists to map the functions of the brain. Almost as a reprise of *Ether Day*, she again tackles the controversies that surrounded the discovery of the anesthetic capacity of ether. And in the last section, *Toward Better Surgery*, she looks at the events that shaped the early attempts at blood transfusion and kidney transplantation.

In examining the evolution of medicine, Fenster is clearly up to the task, humanizing an endeavor that is (ironically) all too often dehumanizing. She presents each of the characters in her anecdotes with all of their flaws and foibles on display, focused on the final goal but always held back by some personal or interpersonal limitation. In one way, the reader almost begins to question whether their sacrifices were worth the final outcome.

Aside from breaking the book into sections, however, there is not much flow between the vignettes, which made reading the book a little disturbing. The reader is left without any idea as to how these people and their discoveries relate to one

another. In contemplating this conundrum, however, I realized where I was going wrong. I had forgotten about the connection to the television miniseries. Instead of being a book about the evolution of modern medicine, *Mavericks, Miracles, and Medicine* presents episodes of history that each must fit into an hour of television viewing. As such, the stories are self-contained entities that cannot interrelate except on the grandest of scales. Once I remembered this bit of information, the process of reading the book became much more enjoyable.

The television series first aired last September, but given the plethora of channels and paucity of programming, it is sure to appear again and again on the History Channel.

—REVIEWED BY RANDALL C. WILLIS ■

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