

Book Reviews

Rita Hoots

Department Editor

HISTORY OF MEDICINE

The Rise and Fall of Modern Medicine By James Le Fanu, M.D. 2000. Carroll & Graf Publishers (19 West 21st St., NY 10010). 426 pp. Hardback \$26.

 James Fanu, a medical columnist for English newspapers and magazines, ties together a more recent history of medicine, covering the advances made in the short 50 year time span from the second world war. His chronicle is captivating, and in a lengthy prologue highlighting 10 definitive moments, he vividly recounts the electrifying new discoveries produced during this period.

Commencing in 1941 with the impact of penicillin, then the first miracle drug, the story continues with the wonders of cortisone treatment, especially for rheumatoid arthritis. Continuing through the 1950s, the reader is reminded of the introduction of streptomycin and its ability to conquer tuberculosis. Along this time the shocking indictment of smoking as the cause for lung cancer upset a fashionably tobacco-dependent population.

Those of us who have lived through these years recall the miracle of open heart surgery, the development of the polio vaccine, the convenience of oral contraceptives, the marvel of human organ transplantations, and the mys-

Rita Hoots, Book Reviews Editor, is a Professor at Woodland Community College and teaches classes in the biological sciences, human anatomy, and chemistry. Her various degrees in the sciences, counseling, and education come from the City University of New York, University of Wisconsin-Madison, California State University-Sacramento, and the University of California-Berkeley. Before entering the education field, Hoots was for many years a researcher in cell ultrastructure and immunology. Her predominant passion in education is directed to the popularization and illumination of science for the public. Her address is: **Science Dept., Woodland Community College, 41605 Gibson Rd., Woodland, CA 95776; e-mail: rahoots@ix.netcom.com.**

tery of amniocentesis. To mention some more recent developments, our awe at the ability of medicine to work wonders continued with the application of Levodopa for Parkinson's, computerized scanners to look inside the body, in vitro fertilization. Less than two decades ago, another 'microbe hunter' found that *Helicobacter pylori* was in large part responsible for chronic peptic ulcers and the condition could be cured.

During the post World War II years, explosive new developments resulted in clinical science, medical technology, and pharmaceutical innovations. Following this exciting recapitulation into 'Medicine's Big Bang', the book explores other issues that affect the progress of medicine. Divided into four parts, medicine is now examined from its past triumphant history to problems that impede advancement. Included within the third section described as 'The Fall' is a description of the new genetics. Unfortunately, the prognosis for genetic resolution of inborn errors is not positive and an extensive analysis of this stand is offered.

Following the dazzling post-war discoveries, this progressive curve of advancement attained its plateau and perhaps even begins its descent as the author continues to look at hobbling social theories of health, financial incentives restricting pharmaceutical exploration, and the dilemmas posed by ethical issues in human research.

For those who have experienced life before antibiotics, vaccines, miracle drugs and medical technology; *The Rise and Fall of Modern Medicine* will serve as a refresher course in nostalgia. For the baby boomers and products of modern medicine, this chronicle provides an exciting adventure story, unbelievable though true, of the magic exhibited in medical progress during a compressed time span. The author's insights into the factors responsible for damping the advancement of medical progress are thought provoking and will certainly generate controversy.

This book belongs in science libraries from the secondary to the graduate level; it will interest as well, any member of the public interested in contem-

porary issues. It is a most absorbingly readable tome that is masterfully written.

Prof. R. Hoots
Science Dept.
Woodland College
Woodland, CA 95776

DEEP-SEA ECOLOGY

The Ecology of Deep-Sea Hydrothermal Vents. By Cindi Lee Van Dover. 2000. Princeton University Press (41 William St., Princeton, NJ 08540). 424 pp. Paperback. \$39.50.

 Published in the year 2000, *The Ecology of Deep-Sea Hydrothermal Vents* by Cindi Lee Van Dover is destined to become a classic. Intended as a textbook for advanced undergraduates, graduate students, and practicing professionals, the author's open, easy writing style makes this material accessible to both scholars and enthusiastic amateurs.

This author is uniquely qualified to write such a treatise because of her experience both as a pilot and technician (1989-1991) of the deep-sea submersible, *Alvin*, and subsequently as a well-funded research scientist. She has logged well over 100 deep dives and has personally encountered most of the major Atlantic and Pacific vent fields. For the reader interested in the author's personal experiences and professional metamorphosis this reviewer recommends the author's book, **Deep-Ocean Journeys**.

This book is not a bestiary nor a picture book, though it is illustrated with more than 100 useful figures, photos, charts, maps and graphs; it is an ecology book. The first two chapters paint the contextual landscape against which later chapters are viewed: the non-vent deep-sea and the geological setting of hydrothermal vents.

From there, the author takes the reader on a journey through the physical and chemical features of vent fluids as well as the anatomy and hydrodynamics of vent plumes. With this foundational abiotic and hydrodynamical background laid, the text launches