varying from the role of ionizing radiation in leukemogenesis to the repair and replication of DNA following injury. Each paper is presented in a succinct and well documented fashion by an authority in the field. The illustrations are excellent and the free discussions of the various topics are both informative and provocative. This book is not for the clinician, but it should be on the shelf of all those investigators involved in unraveling the mechanisms of subcellular genetics and malignant transformation. It seems quite possible that the synthesis of these papers on a variety of diverse topics into a single volume will help to spark the development of new and exciting discoveries in the cancer field.

STUART FINCH

MACHINES IN MEDICINE: THE MEDICAL PRACTICE OF THE FUTURE. By Donald Longmore. Edited and illustrated by M. Ross Macdonald. New York, Doubleday and Co., 1970. 192 pp. $5.95.

It's hard to decide why this book was written—presumably it was to fit into Doubleday's Science Series somewhere between "Spare-Part Surgery," another work by Dr. Longmore, and "Hydrofoils and Hovercraft." This book is a mass of half-truths and speculations based on sound principles. It has just the right amount of technical complexity to make any pseudo-scientist sure he is really getting the story from a straight-shooter.

The book has some good features and a short paragraph should do them justice. Dr. Longmore provides a picturesque description of the problems facing the physician who must content himself with the crude measurements available from the machines we have, rather than seeking the actual molecular derangements causing disease within the body's cells. He does this with enough professional skill and humility to convince the reader. Then follows a satisfactory description of various medical machinery that would be of interest to a layman with a good basic knowledge of chemistry and biology.

What is objectionable in this work is that after his apology for medicine's crude tools, Dr. Longmore proceeds to oversimplify the interpretation of their results to the point of misinformation. This is most clear when he advises surgery or heart transplantation when the electrocardiogram indicates cardiac damage or when he publishes a chart of diseases of blood constituents with enough errors to think the book was never proofread. Perhaps more important is his counsel that "cardiac catheterization can be highly risky . . . After all, what does it matter whether a patient has aortic stenosis with mitral regurgitation or aortic regurgitation with mitral stenosis? Either way he's going to need open-heart surgery." When this kind of advice comes from a consultant in heart surgery and is substantiated by a humorous quote from Lord Brock, I worry that somebody might really believe it. The major criticism of the last half of the book is that it's quite boring. In short, this Longmore effort is not worth purchasing, unless one is interested in playing one-upmanship with his physician.

ROBERT S. BROWN

KININ HORMONES. By M. Rocha e Silva. Springfield, Ill., Charles C. Thomas, 1970. 317 pp. $23.50.