scans in breast cancer, single photon emission computed tomography (SPECT) in abdominal imaging, esophageal transit scintigraphy, captopril renal scintigraphy, radiolabeled monoclonal antibodies, osteoporosis, functional imaging of the elderly, and technetium-99m (^{99m}Tc) IDA scintigraphy in hepatobiliary disease. Generally, the chapters are thorough, but I did find some deficiencies in content.

The volume opens with a discussion by Fogelman and Coleman of bone scans in breast cancer patients. The introduction includes the pathophysiology of metastases to bone and abnormal bone scan findings. The authors discuss the diagnostic and prognostic follow-up roles of bone scans. They touch on the subject of bone marrow hyperplasia but could have improved that section by discussing the pattern of bone marrow involvement by metastatic disease versus bone marrow stimulation.

The current status of SPECT abdominal imaging is discussed by Van Heertum and his colleagues in Chapter 2. The technique and physics principles are well reviewed, and this section is followed by clinical uses, including liver sulfur colloid scans, red blood cells for hemangioma, infections with gallium-67 and indium-111-labeled leukocytes, and monoclonal antibodies for cancer treatment. Of the subjects covered, that on hemangioma could have been more detailed.

The two chapters on esophageal transit scintigraphy (ETS) are excellent. The authors Klein and Wald review the anatomy and physiology of the esophagus followed by the diagnostic assessment of esophageal motility disorders. The only inadequacy, perhaps, is the discussion of pediatric esophageal disorders. Renal scintigraphy with angiotensin-converting enzyme (ACE) inhibitors in the diagnosis of renal vascular hypertension is well reviewed by Sfakianakis' group. The authors discuss the pathophysiology involved and use excellent diagrams to explain the actions of ACE inhibitors. This chapter also includes useful diagrams on renal processing of radiopharmaceuticals in normal and disease states.

Radiolabeled monoclonal antibodies are covered by Keenan. He discusses the current status, future prospects and the history of the "magic bullet" reviewing basic immunology and defining terms. The Fab fragments are particularly well covered. The diagnostic and therapeutic uses of radiolabeled monoclonal antibodies for cancer are discussed completely, but I feel the section on non-cancer uses could have been substantially improved.

In another chapter, Silberstein brings us up-to-date on the diagnosis of and therapy for osteoporosis. His excellent discussion begins with problems in defining osteoporosis and the different diagnostic techniques available including single-and dual-photon absorptiometry and x-ray dual-photon and gamma camera techniques. Therapeutic modalities are reviewed, with a brief discussion on the screening procedure for osteoporosis and its justification.

Spencer and his colleagues provide a sequel to their 1987 article on the changes in functional imaging with aging, in reference to specific organ systems. As one might expect, the review is extensive, well referenced, and includes numerous mathematical formulae. The discussion of the thyroid is inappropriately lengthy, but sections on the genitourinary tract (in particular bladder dynamics and the effect of aging on kidney perfusion and glomerular filtration rates) and the spleen are well balanced.

In the final chapter, Drs. Krishnnamurthy discuss quantitative assessment of hepatobiliary diseases with [^{99m}Tc]IDA scintigraphy. They describe the agents and the factors that determine the rate of clearance of [^{99m}Tc]IDA and discuss cholecystokinin and its analogues, biliary dynamics, and the gallbladder ejection fraction. Overall, I recommend *Nuclear Medicine Annual 1988* to all physicians practicing nuclear medicine. It is well written and has up-to-date references and good quality images.

LAMK M. LAMKI
The University of Texas
M. D. Anderson Cancer Center
Houston, Texas

IMAGING IN CLINICAL PRACTICE

A.G. Chalmers, J.H. McKillop, P.J.A. Robinson, Edward Arnold, The Educational, Academic and Medical Publishing Division of Hodder & Stoughton, 1988, 330 pp, $25.00

This book is the second title in the "Clinical Practice Series." The series is primarily intended for students preparing for the MRCP(UK). The book might also be useful for American medical students rotating through a radiology elective. However, residents of radiology would probably not find the book to have adequate breadth and depth needed for an introductory book. Paul and Juhl's *Essentials of Radiologic Imaging* would be a better alternative. Michael Parker's *Introduction to Radiology* would be an excellent choice in the same price range that medical students would enjoy as a quick reference and as a reader-friendly introductory book.

The 330-page paperback book is composed of ten chapters organized by organ systems; respiratory, cardiovascular, gastrointestinal, liver/biliary/pancreas, genitourinary, endocrine, skeletal, central nervous system, and oncology. The introductory chapter gives a brief history of imaging, the strengths and weaknesses of different modalities, and basic principles and tips on choosing the appropriate test(s). Radiation biology is also touched upon.

The organ system approach is interspersed with pictures of adequate but average quality. However, some important entities had no corresponding images. I find it deficient that a chest x-ray of tuberculosis was not included but a hydatid cyst was illustrated. New treatment and developments were almost totally excluded. Biliary and renal lithotripsy, prostate ultrasound, and magnetic resonance imaging were barely mentioned. Renovascular hypertension evaluation with captopril renal scans or renal artery doppler were not even included as alternatives. Maybe this book reflects the British's practical clinical approach to patient management. I would recommend this book to European students of medicine or any medical library.

KARL CHIANG
Baylor College of Medicine
Houston, Texas