Scientific Basis of Cancer Chemotherapy. Edited by Georges Mathé. New York, Springer-Verlag, 1969. 96 pp. $7.00.

This monograph consists of articles by participants in a 1968 seminar organized by the European Organization for Research into Cancer Treatment. The first paper by Connors succinctly summarizes the various agents used in cancer chemotherapy, what is known about their mechanism of action, and both the advantages and limitations of the various screening tests for such drugs. The most widely used tumor screen in the U.S. is the L1210 mouse leukemia, which has been helpful in working out general principles of chemotherapy, but which unfortunately does not detect some clinically active agents. The need for better studies of human tumors in vitro is obvious. The best papers are those of Double and Ball concerning extracellular and intracellular factors, respectively, influencing the response of tumors to chemotherapeutic agents. Such crucial factors as route of administration, excretion rate, dose regimen, extra-cellular deactivation, delivery to the tumor, and transport across the cell membrane are discussed, emphasizing the paucity of human pharmacologic data. A major point is that many of the important advances in chemotherapy in the last few years have come not so much from the use of new agents, but more rational use of existing drugs based on animal research on optimum dose schedules. An excellent account of possible mechanisms of intracellular drug resistance is given with specific examples of each. The discussion of DNA repair following cross-linking by alkylating agents is particularly interesting.

The paper by Amiel on "Chemotherapy and Immune Reactions" is a detailed account of his group's research on immunosuppression in mice by a host of antineoplastic drugs. The paper bears little relation to cancer chemotherapy directly or to the rest of the seminar and it would be far better had it been replaced by a brief review of such data with the therapeutic implications. Kenis discusses the very important recent research bearing on dose schedules and modes of administration of anti-tumor agents. This includes the studies of Skipper, et al. on the kinetics of leukemic cell growth, and Bruce, et al. concerning the different effects of various chemotherapeutic agents on normal hematopoietic cells as contrasted to lymphoma cells. Mathé contributes a most stimulating overview of the place of modern chemotherapy and its relation to other methods of cancer treatment. Among the more valuable concepts are that administration of a drug kills only a percentage of a given population of tumor cells, the exploitation of differences in tumor and normal stem cell kinetics, rational reasons for combining drugs based on different types of host toxicity but additive tumor cell kill, and the choice of a drug based on the kinetics of the tumor under attack. The place of chemotherapy in conjunction with immunotherapy, surgery and radiotherapy is discussed in light of the concept that reduction of tumor mass by a variety of means, although in themselves not complete, may change tumor kinetics in such a way that another modality may be more useful.

There are some annoying examples of misspelling, stilted English and mistakes in tables and figures which testify to careless proofreading. On the whole, though, this is a valuable book whose brevity makes it one that
The Treatment of Hodgkin's Disease. By E. Anglesio. New York, Springer-Verlag New York, Inc., 1969. xii, 75 pp. $6.00.

This monograph presents a discussion of the current concepts of clinical and pathological classification of Hodgkin's disease, approaches to therapy and clinical management. Among the advantages of the presentation are the excellent compilations of the classifications of the disease and tabulations of results achieved to date with regard to therapy and survival.

While the author has carefully reviewed the pertinent material, his comments and conclusions are inexplicable in many instances. Examples include the recommendation for radical surgery in early or focal disease. None of the surgical series is a randomized prospective study nor do the majority include an adequate number of cases for statistical validity to warrant the author's recommendation. In presenting Kaplan's results with radical radiotherapy, there is an excellent reproduction of data showing the superiority of radical versus conventional radiotherapy. The author comments nevertheless that conventional therapy is "fairly satisfactory!"

The scheme for radiotherapy of Stage I is reasonable, but the method employed is not that of most centers utilizing the radical approach in this country. For Stage III disease the plan seems less comprehensible since it involves treatment of involved but not adjacent areas. If it is intended to be "curative," there is inadequate therapy for adjacent areas. If it is intended to be palliative, it would be unnecessary to treat asymptomatic although involved areas.

The discussion of chemotherapy consists of general comments regarding efficacy and toxicity without a well defined analysis of comparative responses derived from objective assessment. A few opinions are cited without data to support the claims.

In presenting clinical problems in the management of the disease, there are references to the immunological studies of patients with Hodgkin's disease, but no description of the specific immunologic status. Extra-nodal Hodgkin's disease as a specific entity also appears to have been neglected.

In summary, this monograph provides an interesting review of some advances in Hodgkin's disease. The quality of the presentation in terms of organization and conclusions could be improved.

Neurological Anatomy in Relation to Clinical Medicine, 2nd Ed. By A. Brodal. New York, Oxford University Press, 1969. 807 pp. $15.00.

The diagnosis and proper understanding of neurologic disorders depend heavily on thorough knowledge of the structure of the nervous system, and of the relationships between structure and function. Dr. Brodal's work represents an authoritative exposition of these relationships. The present edition is a thorough revision of the original book, published in English in 1946. Comparison of the two volumes provides a striking picture of