report, work was discussed in which tumor transplants were used to study allogeneic inhibition. The discussion following this presentation was outstanding in that it provided a forum for detailed discussion of alternative interpretations of the data presented. On the biochemical level, the reader is informed that current efforts in nucleic acid and genetic code research may contribute to our knowledge of the development of immunologic processes. Basic relationships of immunity, cancer, and chemotherapy on the cellular level are not made immediately evident in this book. This deficiency reflects the present state of knowledge in these fields. Another factor contributing to this deficiency is the lack of unity of presentation, which is inevitable in a book with 18 different authors.

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Mechanisms of Invasion in Cancer. UICC Monograph Series, Vol. 6. Pierre Denoix (ed.). New York: Springer-Verlag, 1967. 217 pp. $9.50.

The volume consists of the papers presented and the ensuing discussions at a colloquium on the mechanisms of invasion by cancer cells, organized by the UICC in Paris, July 1965, and presided over by Professor Pierre Denoix. A subsequent round-table discussion of the same subject was held at the Tokyo Congress in October 1966, which allowed the authors to revise their papers in the light of progress made in the interim.

The subjects covered include: metastasis in human patients, biochemical changes accompanying metastasis, mechanisms of tumor cell dissemination *in vivo*, studies on cellular membrane chemistry and biology, immunologic aspects of metastasis, and cellular ecology in relation to the development of metastasis.

Twenty-two scientists participated in the meetings from institutions in Great Britain, France, Czechoslovakia, Israel, Germany, Hungary, United States of America, U.S.S.R., Peru, Switzerland, and Sweden. Since prospective purchasers of the book are properly interested in the identity of the participants, this list is provided: M. Abercrombie, E. J. Ambrose, G. Barski, Z. Brada, O. Costachel, P. Denoix, M. Feldman, B. N. Halpern, H. Hamperl, B. Kellner, F. Lacour, J. Leighton, O. M. Lejneva, R. E. Madden, R. A. Malmgren, P. Mori-Chavez, M. Stoker, P. Strauli, B. Sylven, G. A. Voisin, E. Wolff, and S. Wood, Jr.

This reviewer was impressed with the diversity of material presented, some of it, unfortunately, only rather remotely related to the *mechanisms* of tumor invasion, but the bulk of it of interest to all workers in this particular field. As so often happens, there is more to be gleaned from the discussions than from the formal presentations, the latter containing, as is inevitable, much that has been previously published.

The reintroduction of the old, and I had thought abandoned, concept of *pressure* as a factor in invasive growth, by Hamperl, excited considerable discussion as might be expected, and a round-table discussion on *in vitro* models as an approach to the invasiveness problem was enlightening, especially in the wide range of opinions that became apparent. The reviewer's major personal interest being centered on the role of the cell surface in the mechanisms of invasiveness, the presentation by Ambrose on this subject, together with the discussion that followed, was of special value.

Considerable progress has been made toward gaining an understanding of this complicated problem since the informal symposium on invasiveness held in London seven years ago. That the final story on the subject is yet to be written is obvious, but the challenges posed should be a stimulant to excite the zeal of young scientists in this area of research. Surely, all those interested in the invasiveness of cancer should read this book.

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Cancer Epidemiology: Methods of Study. Abraham M. Lilienfeld, Einar Pedersen, and John E. Dowd. Baltimore: The Johns Hopkins Press, 1967. 165 pp. $6.50.

The main section of this volume is the work of 9 epidemiologists representing the 5 major continents. Their individual contributions are not identified, and only the two responsible for seeing it through are listed as authors. A statistical methodology appendix written by the third-named author was added, and it constitutes a substantial portion of the book.

Of the 5 chapters, comprising less than 100 pages, the first 2 are essentially introductory, while the last relates to the question of interpreting epidemiologic findings. This leaves 2 chapters on methodology, one relating to morbidity and mortality studies, the other to retrospective and prospective studies. The text is easy to read, and one can go through it in about an hour; if one wishes to absorb carefully its many well-put points, more time, of course, is necessary. The brevity of the text is probably due to its representing the general area of agreement of the cooperating epidemiologists. It brings out the problems, but not the romance, of modern cancer epidemiology.

How to analyze the data the epidemiologist has finally collected is the subject of the statistical appendix. Wisely, the author has limited himself to a handful of simple, reasonable procedures, these being in keeping with the preceding text. A helpful device of generally showing each procedure in a symbolic table and then following it up with an illustrative table is employed. A variety of references and citations from statistical practitioners is provided. Yet the appendix cannot be recommended, and the reader is warned against relying on it.

Difficulties in the statistical appendix include incorrect and ambiguous formulas, careless wording, inconsistent symbolism, too naive a formula for binomial parameter limits, failure to warn that the finite population correction formula is inappropriate in significance testing, a disastrous illustration of the use of random number tables, and others.

Mechanisms of Invasion in Cancer. UICC Monograph Series, Vol. 6: Pierre Denoix (ed.). New York: Springer-Verlag, 1967. 217 pp. $9.50

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