Book Reviews


The first volume of this comprehensive textbook, written by fifteen Soviet authors, covers the subjects of comparative and experimental oncology.

I. P. Mistchenko contributes two papers to the section on comparative oncology, one on tumors of vertebrate animals and one on tumors of plants. The biology of the cancer cell is covered by A. D. Timofeevsky, and its biochemistry by E. I. Sterkin. The section on malignant tumors in general includes six reports: A. D. Timofeevsky on transplantation of tumors; M. M. Fomenko and S. N. Ledanov on the morphology of transplanted strains of tumors; M. A. Magat on the experimental production of tumors; L. M. Schabad on the morphology and histogenesis of tumors induced by chemical agents; N. D. Iudina on the effect of carcinogenic compounds on the blood and blood-forming organs; and A. D. Timofeevsky on tissue culture of tumors. The relations between tumor and host are discussed in nine papers: R. E. Kavetsky on the etiology and pathogenesis of malignant tumors; M. B. Medvedeva on metabolism in the presence of tumors; A. A. Bogomoletz on cancer and the anergy of the mesenchyme; N. N. Sirotinin on allergy and cancer; I. M. Neiman on immunity to malignant tumors; L. M. Shabad on experimental genetics; L. F. Larionov on endocrine glands and cancer; I. P. Mistchenko on diet and cancer; and S. I. Zalkind on mitogenetic radiation and cancer.

On the whole, the textbook is a critical and scholarly presentation of the major aspects of experimental cancer research. The literature is well reviewed and over 3,000 references are cited.

The predominance of the biologic approach in cancer research and the particular emphasis on the effect of tumors upon the organism are characteristic of Soviet experimental oncology, and in these fields Soviet workers are undoubtedly preeminent. One is struck, however, by the practical absence of Soviet work on the genetics of cancer. This deficiency is apparent in the studies on the resistance and susceptibility to transplanted tumors and similar problems in which the genetic factors are not sufficiently appreciated, and in the general use of non-homogeneous animals. The existence of mitogenetic rays is not generally accepted in the United States, and the editor of this volume notes that Zalkind ignores the negative reports in his discussion of the subject.

Subsequent volumes are to deal with the general morphology of malignant tumors, the pathology of malignant tumors, general clinical oncology, special clinical oncology, and radiation therapy. This, the first volume of the series, on comparative and experimental oncology, is easily superior to anything of its type available in the English language. In the reviewer's opinion, it would be worth while to translate it in toto into English, or, even better, to initiate the creation of a similar text by American and British oncologists.

Michael B. Shimkin


These are the proceedings of the first convention of oncologists of the Ukraine Republic, held in Kiev on May 25-30, 1938. The meeting was attended by 391 delegates, representing 7 of the 11 Republics of the Soviet Union; practically all the workers prominent in experimental oncology in the U.S.S.R. were present. The 93 reports were divided into 10 sessions, with discussions and a summary at the end of each. The subjects of the sessions were: (1) Carcinogenic substances. (2) Biology of the cancer cell; precancer. (3) Resistance and susceptibility to cancer. (4) and 5) Alterations in the cancerous organism. (6) Organization of the anti-cancer campaign. (7) Cancer of the respiratory organs. (8) Biologic therapy and biologic methods of diagnosis. (9) Effectiveness of surgical treatment. (10) Effectiveness of radiation therapy of malignant tumors.

The wide scope of experimental oncology in the Soviet Union, and the desirability of better acquaintance and closer contact with the work of the Soviet oncologists, are apparent from the Resolutions of the Convention (pages 535-539) concerning the reports on experimental oncology:

"The convention notes that on the subject of substances that elicit malignant tumors the following results were reached: (1) A series of compounds was synthesized and their action investigated. (2) Interesting work is in progress on isolated compounds and their action on cells and on the whole organism. (3) Important specificity of their action as substances that produce malignant tumors was established. (4) A series of various facts was established toward the possibility of carcinogenic compounds arising in the organism and, further, their possible etiologic significance in the origin of spontaneous tumors in animals and man.

"The convention considers that further extension of investigations in the problem of carcinogenic substances is essential, including the following: (1) Elucidation of their mechanism of action. (2) Elucidation of the correlation of carcinogenic activity with the chemical structure of the compounds. (3) Further study of the problem of endogenous production of carcinogenic compounds and their etiologic role.

"On the problem of the biology of the cancer cell, the following results were reached: (1) It was reaffirmed through new investigations, with the aid of new methods, that blastogenous cells arise from the cells of the organism and are characterized by certain degrees of autonomy. (2) The cancer cell, possessing the property of unrestricted growth, may for a long time exist in a quiescent state, retaining its established properties. (3) The method of tissue culture allows the discovery that malignant cells of man retain to certain limits the histoblastomatous properties of the tissue of origin and in certain cases have the ability to differentiate. (4) New facts were established in the important field of study of the chromosome structure of the cancer cell. (5) Data were presented touching certain aspects of the metabolism of tumor tissue (proteosynthesis, acid-base systems).
The authors of The Metabolism of Normal and Tumor Tissue (3:73-87, 1943) request that the following correction be made. It is made thus tardily because their first letter respecting it was lost in transit.

In Tables III and V the second column, which now reads:

Liver tumor
   " "
   " "
   etc.,

should read as it was in their manuscript:

Liver
Tumor
   Liver
c   Tumor
   etc.,

Michael B. Shimkin

*Cancer Res* 1944;4:71-72.

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