The most likely method of inheritance is believed to be failing dominance but whether due to a single gene or to several (polymeria) is left an open question. On the basis of the present data consisting of thirteen families, from this study, plus .6 from the literature, the author believes that extrachromosomal inheritance may be excluded. Simple dominance and recessive inheritance are also excluded, while sex-linked and sex-limited inheritance have not been demonstrated.

The investigation of a possible relationship between pernicious anemia and leukemia showed that in the 209 leukemic proband pedigrees there were 17 verified cases of pernicious anemia, i.e., 8 per cent of the families. In the control material, pernicious anemia was found in only 6 of the 200 families, i.e., 3 per cent. The relationship between leukemia and pernicious anemia may, in Videbaek’s opinion, be due to a hereditary disposition which leukemia and pernicious anemia may have in common with cancer. No genetic relation between leukemia and other diseases of the blood-forming organs was found.

The last section of this paper is devoted to the consideration of the genetic relation between leukemia and cancer. In the data of this study there were 319 cases of cancer (7.89 per cent) among 4041 relatives of leukemic probands, while there were 218 cases (5.99 per cent), among 3641 relatives of the control group. The incidence of cancer is about 32 per cent higher in the patient material than in the control group—a statistically significant difference. The conclusion of this section is that a relation does exist between leukemia and cancer evident both in the greater frequency of cancer in relatives of leukemic individuals and also the frequent coexistence of cancer and leukemia in the same patient. Leukemia is therefore believed to be a malignant neoplasm of the blood and the hemopoietic apparatus.

This study is an attempt to answer problems on a factual basis. Though conclusions are few, the methods of the study and its objectives are worthy of high praise. Probably few other people recognize as clearly as the author that much more data from unimpeachable sources is necessary before final conclusions can be reached. Investigators of leukemia and cancer will find occasion to return to this work, for it will serve as a useful basis of comparison for their own data.

I. Ludwin


This monograph is the second edition of Frey-Wyssling’s “Submikroskopische Morphologie des Protoplastas und seiner Derivate,” first published in 1938. Extensively revised and rewritten, it has been excellently translated by Prof. J. J. Hermans and Miss M. Hollander.

The clear and exact style of this book makes it a pleasure to read, and it should become familiar to all cytologists, cell physiologists, and bio-physicists; as the best existing presentation of the subject, it will act to the student who is unfamiliar with submicroscopic phenomena as a key to a new world. Even for the specialist, almost every page will be found to contain some piece of unfamiliar and interesting information, but the book is more than a mine of material; it is unusually evocative of ideas for future investigation, many of which will probably come to mind only after it has been read and laid down.

The first section, on the Fundamentals of Submicroscopic Morphology, deals with the organization of gels and the structure of gels; the second section deals with the fine-structure of protoplasm (cytoplasm, nucleus, chloroplast, and the erythrocyte), and the last section deals with the fine-structure of the protoplasmic derivatives (cellulose, cutin, chitin, fibroin, keratin, collagen, mysoin, and starch grains). There is a selected bibliography of over 700 references, together with a subject and an author index. Most of the figures have been introduced to illustrate the spatial arrangements of atoms, molecules, and larger structures discussed in the text; these they do so clearly that it would be possible to become acquainted with the outlines of the subject by studying the figures alone.

Eric Ponder

Erratum

An unfortunate error in the preceding issue of Blood (June 1949), in the section on correspondence concerning revised hematologic nomenclature, gives a misleading impression. Page 781, the first sentence following the references to Dr. Osgood’s letter should read: "A subsequent letter received from Dr. Jones indicates that Dr. Downey was unable to attend two of the last meetings of the Committee, and that he does not agree on all points with the report." (instead of "... indicates that he was unable to attend...".)
Letters to the Editor