

The scope of this admirable volume can be gauged by the contents of the promised second and third parts: one will deal with somatic features, dermatoglyphs, and intelligence and character, while the other will be devoted to blood groups and blood factors.

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**Recent Results in Cancer Research.** Editor in Chief, P. Rentchnick. Vol. 12. Hereditary Factors in Carcinoma. By Henry T. Lynch. (Pp. xiv + 186; 17 figures. DM 24. \$6.00.) Berlin, Heidelberg, New York: Springer-Verlag. 1967.

In the end I had to admit I enjoyed this book for it does bring together in a clinical way most of what is known about the role of inheritance in human cancers. The subject matter includes, of course, not only the classical examples of 'single gene' malignancies, but also the part played by heredity in common conditions such as cancer of the breast, stomach, colon, lung, prostate, and endometrium. The reticuloses, congenital cancer, and congenital abnormalities associated with cancer also receive special attention, and it is good to see negative as well as positive genetic data presented. Of the 12 chapters, 10 (cancer families and cancer and genetic counselling included) are by Lynch himself, but the nervous system is dealt with by Aita, and 'Heredity, emotions and carcinoma: delay in cancer detection', by Anne Krush.

One can sympathize with Lynch in the difficulties he had in deciding on the titles of his chapter headings, and on the whole the book divides up fairly well, though the only safe way to find out what is in it is to read through all the table of contents. This is because *there is no index*, a lack which to this reviewer needed a lot of counteracting.

For a second edition, the following alterations and additions are suggested. (1) A general index. (2) An author index, or alternatively, for the book is short, to put all the references at the end instead of after each chapter. (3) Mention the alleged low incidence of cancer in allergic people (W. D. Mackay (1966). *Brit. J. Cancer*, 20, 434); the role, possibly an inherited one, of steroid levels in cancer of the breast (Bulbrook *et al.* (1962). *Lancet*, 2, 1238); Veale's monograph on intestinal polyposis (A. M. O. Veale (1965). *Intestinal Polyposis*. Eugenics Laboratory Memoirs, 40. Cambridge University Press.)

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### Surveys, Symposia, and Transactions

**Progress in Medical Genetics, Volume V.** Edited by Arthur G. Steinberg and Alexander G. Bearn. Pp. vii + 151; illustrated + tables. 67s. 6d.) London: William Heinemann Medical Books. 1967.

This volume of *Progress in Medical Genetics* begins with a stimulating philosophical account by Professor Dubos of the essential interaction of inheritance and

environment. Though we now accept that this interaction is almost always present in the pre- and postnatal determination of phenotypic characters, it is interesting to be reminded that inheritance and environment were for long thought of as almost exclusive alternatives.

Similarly, it used to be said that bacterial and human geneticists spoke different languages, and one could perhaps feel that communication between them was of little value anyway. This complacency has been permanently shattered since many of the principles of gene action and interaction in bacteria now appear to have their analogy in mammalian biology. Our concepts of genes and the way in which they operate to induce normal variation and disease in man have been greatly modified by these fundamental advances. In no field has this occurred more impressively than in the successful exploration of the haemoglobin molecule. This is superbly illustrated in the chapter on the thalassaemias by Dr. D. J. Weatherall. Genetically orientated research has here played a critical role in elucidating the fundamental pathological processes involved. If diseases ever become amenable to deliberate molecular manipulation, the first example is likely to be found in the haemoglobinopathies.

The porphyria story is equally fascinating. Like the disorders associated with abnormal haemoglobin molecules, inherited and environmental factors can be seen to be interacting in a definable if not perfectly understood way. In some respects, workers like Professor Waldenström have had a harder task since they began their studies and made much progress long before anything significant was known of the manner of gene action and, in addition, the porphyrins are a stage more removed from the DNA powerhouse than are the haemoglobins. Nevertheless, a fascinating story emerges from this section on a royal malady. One minor criticism is that it is difficult to comprehend some of the otherwise excellent figures because abbreviations are not explained in the legends. However, the text usually brings comprehension.

Professor Sherlock reviews clearly and briefly those liver disorders associated with jaundice which may have a genetic basis. In this group clinical entities are fairly well defined, but with the exception of one or two conditions, like Wilson's disease and galactosaemia, the precise role of inheritance is unknown. One must agree with Professor Sherlock that several of them 'must at least be familial'. Whether this involves the activity of rare recessive genes, sporadic mutations, or multi-factorial inheritance remains largely obscure.

In comparison with the clarity with which the haemoglobinopathies and porphyrias can be viewed and the at least clinical precision of liver disease, inherited muscle abnormalities remain relatively poorly defined. The comprehensive article by Drs. Emery and Walton highlights the paucity of knowledge about the basic pathological processes involved, and they review the inherited muscle diseases in clear but necessarily descriptive terms.

Until the causal link between gene and damaged muscle is defined in biochemical terms little advance in understanding can occur. Are phenotypically similar, but genetically distinct variations of Duchenne dystrophy,