and biosynthesis, enzyme systems. The paper entitled, "Further studies on the biosynthesis of cholesterol and squalene," by Cornforth *et al.*, deserves special mention because of the probable significance of cholesterol synthesis in atherosclerosis. The final paper of this section is the report of an international committee on "Nomenclature of enzymes of fatty acid metabolism."

Part III is devoted to phospholipids and transport. Of special interest are a report by E. H. Ahrens, Jr., on "Fatty acid exchanges during fat digestion in the human intestine" and an article by M. G. Morehouse, W. P. Skipski, R. L. Searcy, and Leonard Spolter on "Absorption and distribution in the rat of lipids utilizing labelled glycerides and components." The article by J. Glover and C. Green on "Studies on the absorption and metabolism of sterols: mode of absorption" is of current interest.

Several papers in part IV are especially timely. These are "Minor constituents of unsaponifiable fractions of kidney, liver and other tissues from various species," by R. A. Morton; "Rôle de la choline a l'égard de la toxicité de certains mélanges lipides-cholestérol," by J. Raulin; "The biological value of various natural oils and fats," by H. J. Thomasson; "Function and metabolism of essential fatty acids," R. T. Holman; and, finally, "Action de l'héparine *in vitro* sur les lipides et les proteines du sérum sanguin," by Colette Magis.

It is not possible in a book of this type, covering so many subjects, to review any papers in detail. However, this volume should be on the required list for every lipid chemist and especially for graduate students working in this field.

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Experimental Research on Ageing. Symposium of the Biological and Medical Research Committee of the International Gerontological Association's European Section. Basel, 4–7 Apr. 1956. F. Verzár, Ed. Birkhäuser, Basel, Switzerland, 1956. 290 pp. F. 34.

This report of a symposium organized by F. Verzár and J. F. Danielli, under the auspices of a committee of the International Gerontological Association's European Section, is of special value, since the participants have presented observational data to support their points of view. It offers an excellent perspective of the interests of European investigators in research on aging.

Of the 40 papers published, the first five offer the views of R. E. Tunbridge and D. A. Hall (Leeds), I. Banga, J. Baló and D. Szabó (Budapest), Verzár (Basel), and N. R. Joseph and F. Bourlière (Paris) on age changes in connective tissue. These papers summarize, in a lucid fashion, the areas of agreement and disagreement among these investigators. With increasing age, collagen undergoes changes which are reflected in its chemical and physical properties. Danielli and G. H. Bourne (London) considered the potential role of somatic mutations in aging and reviewed briefly age changes in mammalian tissue cells. The importance of the interrelations between the functions of cells of a given tissue with other cells of the body was stressed. Although attractive, the hypothesis that aging is attributable to somatic mutations is highly speculative, since calculations must be based on mutation rates in the germ cells in the absence of data on somatic cells. O. Mühlbock (Amsterdam) summarized data from his genetic studies on mice to demonstrate that advanced parental age reduced the frequency of spontaneous mammary and hepatic tumors in the offspring. L. Brull and C. Keil (Liége) showed that fatness in mice increased regularly with age except in extreme old age. They concluded that mice behave like human beings—they keep on eating too much after they are grown.

About 14 papers were concerned with age changes in the functional capacities of various organ systems in mice, rats, and human beings. These varied from reports on structural changes in the senile mouse ovary (P. J. Thung, Amsterdam), and age differences in the response of body temperature of the rat to cold environments (F. Hügin and Verzár, Basel), to changes in carbohydrate (W. E. J. Jessop, Dublin, and H. Baur, Basel), protein (J. Rechenberger, Leipzig), and lipid metabolism (G. Schettler, Marburg) in the human being. Arteriosclerosis was the subject of papers by E. Greppi, G. Scardigli, G. Guidi, F. M. Antonini (Florence) and F. H. Schulz (Leipzig). Other clinical studies on protein metabolism (W. Schulze, Ludwigshafen), water metabolism (O. Olbrich and E. Woodford-Williams, Sunderland), blood coagulation (T. Geill, Copenhagen), aging in the central nervous system (M. Bürger, Leipzig), vitamin treatment of mentally disturbed old people (L. Van der Horst, Amsterdam), and blood sedimentation (J. A. Huet, Paris) were also reported. V. Korenchevsky (London) developed, in detail, his theory of autointoxication as one of the causes of aging. Olbrich and Woodford-Williams were unable to reduce nitrogenous waste products in the blood by daily intravenous infusions of saline in old subjects. A. T. Welford (Cambridge) critically examined current theories of age in learning ability. E. R. F. W. Crossman and J. Szafran (Birmingham), using card-sorting tests of increasing complexity, found that the easy tasks showed greater age differences than did the more difficult tasks. This is a new observation which led the investigators to present an interesting hypothesis based on the concept of "internal noise" in the nervous system.

Although many "old hands" in gerontological research contributed to the symposium, a number of investigators who were new to the field of aging were represented. This is an indication of the growing recognition of the importance of aging research among scientists from many disciplines.

The book offers thoughts and hypotheses about aging which should serve as a further stimulus to research. It differs from other symposia in that only minor reference is made to the discussion. The published discussion is usually limited to a series of questions with specific answers, so that the reader does not get full benefit of the thinking of the group. Unfortunately, the book does not contain a subject index. However, the volume is a "must" for anyone who wishes to be informed about current research on aging in European laboratories.

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A Revision of the Australian Chafers (Coleoptera: Scarabaeidae: Melolonthinae). vol. 1. E. B. Britton. British Museum (Natural History), London, 1957. viii + 185 pp. Plates. £4.

Volume I of this much needed revision of Australian chafers is presented in 185 pages, with 25 text figures and 42 plates with 499 line drawings. The volume is especially valuable, since E. B. Britton was unusually fortunate in being able to examine a high percentage of the types of Australian Melolonthinae, the British Museum itself owning at least half of the types of the 1389 known species. He was privileged also to spend the greater part of a year in Australia, studying types in the five Australian museums owning such specimens.

In the first volume, 157 of 184 previously described species are reduced to 136 through synonymy, and 67 new species are added, to bring the total to 203 species. These species, occurring on the Australian mainland and associated islands, including Tasmania, are described and presented in well-constructed keys to tribes, genera, and species.

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