Chromium in Nutrition and Metabolism

Developments in Nutrition and Metabolism; Volume 2

Edited by D. Shapcott and J. Hubert
Elsevier/North-Holland; Amsterdam, New York, 1979
viii + 262 pages. $44.00, Dfl 90.00

This is a 'State of the Art' book consisting of papers read at a symposium in July 1979. The publishers presumably intended very rapid publication since the book is offset from authors' typescripts but since a review copy was not received until January 1980 this has not been achieved. Nor has the reader's expectation of a cheap method of publishing been fulfilled since it costs $44 for 250 pages of material – which will soon be out of date.

Much of the book is devoted to methods of analysis of chromium, a subject of vital interest to those carrying out the analyses but less interesting to others.

Analysis is certainly of great importance since values reported in 1974 led an American group into premature assessment of human daily recommended intakes for chromium. With urinary excretion of 5–10 μg/l and an absorption efficiency of 0.5–1.0%, intake would need to be about 1000 μg–about 10-times the average American intake! Improved methods of analysis in 1978 divided the excretion figure by 10 and resulted in many, but not all, Americans now being adequately nourished (at least with respect to chromium).

Chromium was shown to be part of the glucose tolerance factor in 1959 and a dietary essential for animals in 1966. The essential nature of chromium for man was revealed as recently as 1974 by the deficiency following prolonged total parenteral nutrition with consequent disturbance of glucose tolerance. Hence it is rather early to expect complete clarification of its metabolic role.

Malnourished children in Jordan, Turkey and Nigeria respond by improved glucose tolerance to treatment with chromium chloride and the biologically active form of the mineral is an unidentified complex of trivalent chromium with nicotinic acid, glycine, glutaminic acid and cysteine.

The few papers that discuss dietary sources and deficiencies in various sections of the population are short and suffer from the lack of editing that is inevitable in printing from typescripts – there is much repetition. The whole book would be more useful as a general review article and indeed is largely covered by the introductory overview by Mertz.

A. E. Bender

Transport by Proteins

Edited by G. Blauer and H. Sund
Walter de Gruyter; Berlin, New York, 1978
xvi + 420 pages. DM 145.00 (hardcover)

This volume presents the Proceedings of the FEBS Symposium No. 58. It was held in Konstanz in July 1978 and the Proceedings appeared – completed with discussions – within 1978. The speed of publication, for which both the editors and the publishers are to be highly commended, has not been

detrimental to either editing or printing.

The scope of the Symposium was quite broad: it covered not only some selected examples of membrane transport proteins, but also presented a number of contributions on non-membrane transport proteins (e.g., hemoglobin, albumin, redox systems) as well as a general section including protein–ligand interactions, and non-equilibrium thermodynamics of transport. Naturally, each of the individual topics may have deserved a symposium of its own. On the other hand, the reader, who might be interested in principle, in a single narrow field, will have here the opportunity of checking his own knowhow with that developed in neighbouring, seemingly little related, areas.

As always in multi-author volumes, the level, type and quality of the various contributions are different. I have enjoyed reading the large majority of them and I am sure that most readers will also.

G. Semenza

Nonsense Mutations and tRNA Suppressors

Edited by J. E. Celis and J. D. Smith
Academic Press; London, New York, San Francisco, 1979
x + 350 pages. $37.00, £16.00 (hardcover)

This book is a record on the proceedings of the EMBO Laboratory Course held in Aarhus in July 1978. The main aim of the book is to introduce the reader to the field of translational suppression, specifically to nonsense mutations and tRNA suppressors. It contains first a few general chapters dedicated to tRNAs, aminoacyl-tRNA synthetases, initiation and termination of protein synthesis and reading frame errors on ribosomes.

The classical work on nonsense suppressors in procaryotes and yeast is thereafter described as well as the latest developments in the search for nonsense mutations and tRNA suppressors in higher eucaryotes.

It is to my knowledge the first book covering the subject. It will be of great interest to researchers and teachers in Genetics, Molecular and Cell Biology.

G. Dirheimer

Plasmids

by Paul Broda
W. H. Freeman; Oxford, San Francisco, 1980
viii + 198 pages. £6.90 (hardcover)

For several years after their initial discovery plasmids were regarded as something of a genetic oddity, of interest to microbial geneticists and with some environmental implications to those concerned with antibiotic resistance, but they could hardly be said to be of wide interest to microbiologists. Now all that has changed. Not only are more and more characters now being found to be plasmid-mediated in bacteria, but also these characters are being seen as sets of genes which fit the bacteria that carry them to occupy some specialised ecological niche. So there are patterns of antibiotic resistance genes which reflect

Edited. by. AlbrechtWezler and Michael Witzel. Volume I. rnJ. - Walter de Gruyter . BerlinÂ· New York. \0. 1995.Â These raw materials were processed near the source areas or transported to distant manufacturing centres where they were modified using specific technologies. Special status objects, or tools that were produced from raw materials and specific technologies, were'used in the vicinity of the production centre or redistributed to other regions. Transport by Proteins, herausgeg. von G. Blauer und H. Sund, XV, 420 S., Preis DM 145,-, Walter de Gruyter, Berlin-New York 1978. Article. Jan 1979. Hansâ€Dieter HÃ¶ltje. View. Cyclic acetylcholine analogues. IV.Â EFSA European Food Safety Authority. Eliezer Barreiro. Federal University of Rio de Janeiro. Vincenzo Calderone. UniversitÃ di Pisa. Current institution. Heinrich-Heine-UniversitÃ¤t DÃ¼sseldorf. DÃ¼sseldorf, Germany. Co-authors. Walter de Gruyter GmbH (German: [ËˆÉ¡ÊÉ”ÊÌ¯tÉ] or [ËˆxÊÉ”ÊÌ¯tÉ]; brand name: De Gruyter) is a scholarly publishing house specializing in academic literature. The company has its roots in the bookstore of the KÃ¶nigliche Realschule in Berlin, which had been granted the royal privilege to print books by King Frederick II of Prussia in 1749.[2] In 1801 the store was taken over by Georg Reimer. In 1919, Walter de Gruyter (1862â€“1923) merged it with 4 other publishing houses into the company that became Verlag Walter de Gruyter & Co in 1923, and Walter de Gruyter GmbH in 2012.[2].Â Imprints and partnerships. Several former publishing houses have become imprints of De Gruyter. "De Gruyter Mouton/De Gruyter Saur" (formerly "Mouton de Gruyter") was purchased by de Gruyter in 1977.