

Biological Sciences

BIOCHEMISTRY DAY BY DAY

The International Journal of Biochemistry

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Most new journals seek to carve a place for themselves by catering for some known or imagined interface subject. It requires more pluck to launch a new medium in a central discipline, and the subscriber and reader will rightly question the motive of any publisher adding to the unmanageable flood of literature in a subject like biochemistry. But the one who determines initially the viability of a new journal is not the reader or subscriber so much as the contributor in his bid for citations; and to argue that the harassed reader is in fact the same person as the contributor is no more relevant than to point out that campaigners against air pollution are often keen motorists.

Professor E. C. Webb has already established (*Nature*, 225, 132; 1970) that if the growth of the biochemical literature is no longer logarithmic, it is very steep, and the proposal that investigators should be content to deposit the full recital of their research as typescript in some archival bank is having little impact. Clearly the journals must take the initiative in encouraging such a step; for if they are not prepared to risk the initial decrease in their output they must perish for ever in a sea of print. And if the major journals cannot agree to cooperate in this effort, then perhaps one of them should go it alone on an experimental basis.

In this climate of development it is a pity that the *International Journal of Biochemistry* makes no promise of innovation. Indeed, there is no real statement of policy. It is strange, moreover, that there is no official editorial board and I suspect that if the journal makes its mark, Professor Kerkut and his assistant Dr Walker will find themselves hard pressed: already the dates of receipt betray the fact that the editorial office is operational on Saturdays. Publication times of 6 to 8 months are not very competitive, but this is perhaps inevitable in a first issue. Each biochemical journal seems to acquire for itself a characteristic slant, be it enzymological, physical or comparative—the accent in this first issue is very much on comparative enzymology and metabolism. It is disappointing to find that although articles have been competently and fairly uniformly subedited, little account is taken of the recommendations of the IUPAC-IUB Commission on Biochemical Nomenclature, and SI units are not consistently adopted. The texts are littered with abbreviations like G6P and units like μ and Kcal. for which agreed alternatives are available. And in adopting the Harvard system of references a mistake may have been made, for the Commission of Editors of Biochemical Journals may soon standardize on another system. It is good to see a list of key words at the end of each contribution, but the editors will have to educate their authors to conform to some accepted thesaurus.

On balance, a new journal in biochemistry need occasion no alarm. But it does mean that biochemical journals are now being produced at the rate of one a day: *Biochemistry* has just doubled its frequency; *Biochimica et Biophysica Acta* is coming out every five days. So long as proliferation is the watchword of communication, the only choice is between more issues of the same journals or the addition of new ones. To judge from the progress of recent starters such as the *European Journal of Biochemistry*, the subject is big enough for all comers and their respective fates will ultimately depend on the standard of excellence they attain. J. H. MORRIS

PROTEIN SYNTHESIS

Techniques in Protein Biosynthesis

Edited by P. N. Campbell and J. R. Sargent. Vol. 2. (Academic Press: New York and London, December 1969.) 80s; \$12.00.

THE series to which this volume belongs introduces some of the practical techniques used in studying protein synthesis. Intended primarily for students lacking first-hand experience in the field, this volume has five major contributions and a short appendix which together cover a wide range of topics.

In the first chapter, Brammar gives an excellent account of how genetics has contributed to an understanding of protein synthesis. Although the presentation is very clear the article is definitely not for beginners because the coverage is extremely comprehensive. Furthermore, it is doubtful whether a factual review is suited to a book concerned with methodology. Certainly this chapter would be better placed at the end of the volume. It is unfortunate for Allende that his article on protein biosynthesis in plant systems follows. Relative to Brammar's sophisticated subject, plant systems seem low-powered, although undoubtedly this truly reflects the present situation. Ironically, Allende deals almost entirely with methods and he gives clear details of experiments used to study plant protein synthesis.

Noll holds very definite views, and this quality is evident in his analysis of structure and function in polysomes. The detail in this chapter is impressive and I found the presentation refreshing. Noll leaves the reader in no doubt that his analysis methods work. Clear diagrams illustrate excellent resolution between components with very close sedimentation values. In contrast, Bloemendal and Vennegoor do not assert themselves on fractionation of ribosomal proteins. Detectable proteins vary in number if different extraction and fractionation procedures are used, and I would have welcomed a really critical coverage of this aspect. Also, recent advances suggest that some of the methods described here may soon be discarded.

In the last major contribution, Waynforth reviews animal operative techniques and should be applauded wherever animal experimentation is used. I suspect that many scientists who manipulate animals do so incompetently, and one hopes they will study this chapter carefully. The author gives precise and thoughtful details and includes many helpful illustrations. Finally, Todd and Campbell contribute an interesting appendix on the use of energy-generating systems in *in vitro* studies on protein synthesis. This article leaves many questions unanswered.

Inevitably some of the many techniques discussed here have been, and will be, superseded by better ones. Much of the material included is extremely useful, however, and the volume should be acquired by all departments concerned with work on protein synthesis.

MICHAEL CANNON

COENZYME FUNCTION

The Biochemistry of Folic Acid and Related Pteridines By R. L. Blakley. (North-Holland Research Monographs: Frontiers of Biology, Vol. 13.) Pp. xxi+569. (North-Holland: Amsterdam and London, 1969.) 210s.

ONE can see very clearly in the case of the vitamins how both chemical and medical studies have contributed to the advance of biochemistry. It is now known that the B-group vitamins function in the form of coenzymes and a fairly full account can be given of the chemical nature