

BOOK REVIEWS

Dynamics of Energy-Transducing Membranes

Edited by L. Ernster, R. W. Estabrook and E. C. Slater
Elsevier; Amsterdam, London, New York, 1974
xxvii + 578 pages. Dfl 135.00; \$ 51.95

The international bioenergetic circus has much in common with the floating crap game immortalised by the late Damon Runyan. That is not a vulgar allusion to the quality of work presented in the symposia of the former group, nor to the exotic retreats where these are sometimes held. Rather, I refer to the colourful character of the rival (or temporarily allied) factions in general and of their Godfathers in particular; to the private language and folk history, the self-citation, self-indulgence and sentimentality. Nowhere are these last characteristics more in evidence than on a special occasion, and what more special occasion than the coincidence of the 9th International Congress of Biochemistry in Stockholm in July 1973 with the 60th birthday of the legendary boss of the Philadelphia mob? Pal Joey prayed to Lady Luck, the mitochondriae paid their respects to Britton Chance.

The 'Book of the Show' has now been published; a large, glossy Festschrift comprising a selection of over 40 specialist papers that were either presented in the satellite symposium ('Energy-Transducing Membrane Functions') dedicated to Britton Chance, or presented at the International Congress and discussed in the symposium. Also included are the Congress plenary lecture, 'Electron Transfer and Energy Conservation', by E.C. Slater, tributes to Britton Chance by L. Ernster and H. Theorell and an affectionate and charmingly documented potted biography by R. W. Estabrook. Not surprisingly, the final paper by Chance himself is not a retrospective review, but a typical 'B.C.' research communication describing experiments involving simultaneous measurements of the kinetics of cytochromes c_F , b_T and b_K (spectrophotometrically) and ubiquinone (by fluorescence quenching), using a time-sharing triple dual-wavelength spectrophotometer, and fluorimeter attached to a regenerative flow apparatus with facilities for liquid dye laser photolysis!

But what of the bulk of the book? Is it worth reading, two years later, an inevitably unbalanced collection of communications that have probably since been published elsewhere and in many cases are now out of date? For the general biochemist the answer is probably no. He will probably find Slater's lecture interesting, and might find useful the review by Parnes, Boos and Kalckar on active transport in *E. coli*. He might also be intrigued by Boyer's paper on conformational coupling, (and ought then to read, as an antidote, Skulachev's elegant 'neo-Mitchellian' paper). Generally however the contributions are addressed to a specialist audience.

For the historian of science the book will be more useful. It is true that the proceedings of colloquia of this kind are fairly regularly published, and that for a snapshot of the state of the art at any one time this particular one must be considered incomplete, lacking as it does contributions from Peter Mitchell or from David Green. Nevertheless, the flavour is correct and appropriately spiced for the occasion with the liberal use of the sophisticated biophysical techniques that owe so much to Chance's inventiveness.

For the specialist, and particularly for the mitochondriac, (other energy transducing membranes being poorly represented) the book would be a pleasure to own, if not to buy. Even though some of the papers may be out of date, and he may already possess reprints of the others, it is a useful collection to browse through, with the usual fascinating juxtapositions, (compare Azzone et al. with Papa et al. on the mitochondrial proton pump), and it has been expertly put together. Moreover, as I have already mentioned, we are prone to self-indulgence and this is, after all, the Festschrift for a unique scientist who has contributed uniquely to developments in bioenergetics.

H. Baum