be useful to those biologists interested in algae and their potential, and to biotechnologists in general. On this basis it could, in addition to library purchasses, attract an interdisciplinary readership, though perhaps not a large one.

Lyndon Rogers

An Introduction to Radioimmunoassay and Related Techniques (Third Edition)

Laboratory Techniques in Biochemistry and Molecular Biology

By T. Chard

General Editors: R.H. Burdon and P.H. van Knippenberg

Elsevier Science Publishers; Amsterdam, 1987

xvi + 274 pages. Dfl.79.00, $35.00 (paperback); Dfl.257.00, $109.00 (hardback)

If old George were asked at the village cricket match whether or not the bowling was accurate, he might well reply: “Nay lad, it’s all over place,” or words to that effect. However, careful inspection would probably show that balls bowled to leg and off of the stumps were produced with equal frequency so that the net average ball, from a scientific point of view, was perfectly accurate and on target. What George should have said was: “Nay lad, it’s a bit imprecise today.” Precision and accuracy are everything to the immunoassay buff and these and other far more complicated concepts are beautifully demystified in this little pocket paperback.

Actually, there is a bit of a rumpus going on at the moment about this word ‘accuracy’. The younger assayists feel that old George may have a point and that lay feelings about the word should be respected. They have therefore come up with the following revision:

New ‘accuracy’ =
the square root of (old ‘accuracy’² + precision²)

Got it? No? Well, the author was not over the moon about it either. And to add insult to injury the young bloods are suggesting that the word ‘bias’ replace old ‘accuracy’ — a strange choice for a term meaning: degree of approximation to the truth.

Getting back to the book, there is a mountain of useful information about radioimmunoassay (RIA) here. For reference and trouble-shooting in laboratories doing this sort of work routinely, it should be invaluable. And for those contemplating development of one of the traditional polyclonal antibody RIAs, every angle is considered, every aspect covered and no stone is left in peace to trip up the unwary. However, there is a distinctly backward-looking feel to it all. For example, only 4 of the 274 pages are devoted to monoclonal antibodies. The methods for using them and the problems arising are largely ignored. But surely, you will exclaim, the future for immunoassays lies with the infinitely reproducible and consistent monoclonals. Week by week their diversity expands and week by week they become cheaper and more generally available. I would agree and would add that the very demands of accuracy and precision extolled by the author will require their use in the not too distant future.

Another niggle before finishing — what about ELISA? Enzyme-linked immunoassays are indeed mentioned but only in the introductory chapters. Theoretical analysis, setting up the technology and problems in use are absent. This despite the fact that most new immunological assays being developed these days utilise the ELISA concept. It is cheaper, safer and often quicker than RIA. Sermon ends.

C.J. Chesterton