

## *The Biophysical Basis of Excitability*

by J.G. Ferreira and M.W. Marshall

*Cambridge University Press; London, New York, 1985*

484 pages. £50.00, \$80.00

This is a curious book. Its aim, in the author's own words, "is to present existing knowledge in a way that clearly explains the basic principles underlying excitability in biological tissue". Approximately half of the book addresses these basic principles and the rest is in the form of a series of appendices providing what is felt to be essential mathematical background.

Despite this attempt to improve readability, I still found the book heavy going and very classical. It certainly provides information relating to many

of the questions that are often asked by membrane biophysicists; but I could not help comparing it unfavourably with much more forward looking texts such as Hille's 'Ionic Channels of Excitable Membranes'. Nevertheless, in laboratories where there is more than a passing interest in membrane biophysics, this book would probably be a useful addition to the reference collection. I doubt, however, that when resources are scarce it could be given a very high priority.

P.F. Baker

## *Current Topics in Research on Synapses, Volume 3*

Edited by D. Gareth Jones

*Alan R. Liss; New York, 1986*

178 pages. £33.00

This book is the third of a series on synaptic research, each of which has been fairly ambitious in the breadth of topics covered. Volume 3 is no exception ranging from anatomical reviews on the synapses in the motor thalamus and another on plasticity of synaptic contacts, through a chapter on the neurophysiology of long-term potentiation as a synaptic phenomenon responsible for memory, to a review on the effects of ethanol on the ontogenesis of CNS neurones. For me this diversity was too great and this odd mix of topics produced a book which lacks cohesion. Even within chapters the authors have been over-ambitious. For example, the review on ethanol jumps between clinical developmental studies and animal experiments, appraising the animal models of ethanol administration on the way and then for

good measure returns to clinical uses of alcohol, highlighting some aspects of epidemiology.

The text, I am sure, will only be attractive to a very specialised section of scientists and would be of little use to anyone wanting an overview of more general aspects of current synaptic research. Despite these criticisms of a lack of cohesion, each chapter is otherwise well written and the sectioning is sufficient to make the book of use as a reference text. I should have liked to see more tabulated information as these are invaluable in books which are collections of recent literature.

The price is typical of a hardback text of this length but I do not think it will attract a wide readership.

Ian Kitchen