Brain Receptor Methodologies. Part A 
General Methods and Concepts, Amines 
and Acetylcholine. Part B Amino Acids, 
Peptides, Psychoactive Drugs 
Editors: Paul M Marangos, Iain C Campbell and Robert 
M Cohen (Part A, Pp 363; £39.50.) (Part 
B, Pp 336; £31.50.) Florida: Academic 

A major discovery in understanding the 
nature of neurotransmitter receptors in 
brain was the finding that they could be 
identified in vitro using radioactive ligands, 
that is drugs or transmitter substances 
showing a high affinity for specific receptor 
populations. Once established, such tech-
niques have allowed the mapping of neuro-
transmitter receptors throughout brain, the 
identification of their localisation within a 
given brain area and quantification of 
changes occurring in receptor population 
as a result of pharmacological manipula-
tion. Subsequently, it has been shown that 
ligand binding techniques can be used not 
only in membrane preparations of brain 
tissue but they may be utilised to label 
receptor populations in slice preparations as 
identified autoradiographically and also 
the peripheral administration of radioac-
tive ligands can be used to identify 
nervous system receptors in vivo.

As with all such techniques, methodol-
y is a critical issue. The conditions under 
which ligand binding experiments are car-
rried out has a significant influence on the 
nature of the receptor population 
identified. Many of the apparent discrep-
cencies on receptor identification in the 
literature are due to differences in 
methodology. Ligand binding experiments 
are readily carried out but difficult to inter-
pret. For these reasons it is timely that 
these two volumes on brain receptor 
methodology should appear. They contain 
up-to-date critiques of the means of bran-
tifying a range of neurotransmitter recep-
tors including catecholamines, acetyl-
choline, GABA, glutamate and peptides. 
The various chapters cover in vitro, in vivo, 
autoradiographic and photoaffinity label-
ing techniques and deal with both mem-
brane and soluble preparations. Space is 
also given to the critical issue of interpreta-
tion of data. Since receptors themselves do 
not produce changes in neuronal activity a 
section is devoted to the effector system 
believed to be linked to neurotransmitter 
receptors.

Overall, these are two excellent volumes 
which should be kept in all laboratories 
utilising receptor binding studies. Clearly 
their content is intended to be general in 
approach and so provide a broad back-
ground of information to pharmacologists 
and biochemists. All the chapters make 
outstanding reading although there is some 
overlap in, for example, the contribution 
for dopamine receptors and that on 
neuroleptic receptors which appear in dif-
ferent volumes. A pair of volumes to be 
recommended.

P JENNER

Current Therapy in Neurologic Disease 
(Pp 424; £46.00.) Oxford: Blackwell 

Anyone attempting a comprehensive book 
on therapeutics faces a frustrating and 
dauding task. So much is the victim of whim and fashion, and so many drugs are 
of ephemeral utility. To support any state-
ment containing advice about a particular 
regime, the author should include refer-
ces to suitably reliable trials; but in a 
detailed account for example of multiple 
sclerosis, so compendious would be the 
reference material that the description is 
liable to be both fragmented and tedious.

Richard Johnson has secured the help 
of some of the very best names in neurology, 
mainly from North America. Their range of 
specialist expertise is impressive indeed, 
and this is brought out in the minute detail 
and the clinical precision in their writings. 
The aim throughout is to answer practical 
questions for those involved with the 
neurologically sick. The contributors have 
been asked to write about their personal 
method of handling the problems of man-
agement. To what extent have they suc-
sceeded?

The subject coverage is comprehensive, 
embracing the majority of neurological and 
nervous system disorders as well as 
paediatric and psychiatric issues where 
relevant. In 408 pages it is surprising how 
little has escaped attention. However, as 
is inevitable with a multiauthor work, the 
standard is like the curate’s egg—good in 
parts. And, like the junior curate, original-
ly portrayed in Punch magazine, it has 
to confront the neurological equivalent of 
the bishop at his own breakfast table. It is 
invidious to pick out individual chapters, 
but some provide too much information 
about diagnostic methods for a book 
devoted to therapy; some are too vague 
to provide incisive advice.

Investigations recommended are often 
overdone—at least by British standards. 
There are significant differences from prac-
tice on this side of the Atlantic in many 
shires, but in some of these, we may learn 
from current US methods. It may be sound 
to routinely give vitamin D and calcium 
supplements to the over 50’s on steroids. 
I was impressed by the thoughtful “algorithm” (dreadful word) for benign 
intracranial hypertension, and interested to 
see the claims for acetazolamide in doses of 
2 to 4 g/d given at a stage when many here 
would start steroids. But is it wise, or kind, 
to use positive-pressure respirators in the 
homes of “more patients than ever” with 
motor neuron disease? And, is it correct to 
advise corticosteroids for cranial arteritis 
for “usually 6 months to 1 year prior to 
ttempts to taper . . .”?

The sections on the common disorders, 
epilepsy, multiple sclerosis, pain syn-
dromes are invaluable; that on atypical 
facial pain differs considerably from the 
textbook, carbamazepine being the pre-
dominant treatment. The section on the 
treatment of hypertension is quite 
dearthful, the volume for hypertensive 
arteriosclerosis being the opening chapter.

One of the most impressive features of 
many chapters is the carefully prepared 
instructive tables showing detailed criteria 
for diagnoses and indications for therapy 
with and without multiple drug 
combinations. These contain a wealth of 
up-to-date data, often difficult to find easily 
elsewhere. The book is pleasingly pro-
duced and clearly printed, but the index is 
awful! I could not find cranial arteritis, oph-
talmic dyskinesia or hypoglycaemia, yet 
these are dealt with, albeit briefly, in the 
text if the reader is patient.

Despite these shortcomings, which with 
certain unnecessary repetitions between 
sections should have been corrected by the 
editor, this is a very useful compilation. Its 
lack of references is not a drawback, for 
they would very soon have been out of date 
in this sort of topical and changing field of 
therapeutics. It should not be used by initi-
ates without supervision, because, as was 
the intention, its advice is often conten-
tious; and all the more interesting for it. 
It will reside in my hospital office, adjacent 
to the ward, and I am sure it will be in fre-
quent use. A most welcome addition to the 
justly respected Current Therapy Series.

JMS PEARCE

Book reviews