Brain Receptor Methodologies. Part A
General Methods and Concepts. Amine
and Acetylcholine. Part B Amino Acids,
Peptides, Psychoactive Drugs
Editors: Paul J Marangos, Lain 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
neuronal receptors in vivo.

As with all such techniques, methodol-
ogy 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-
ancies 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
effective reading although there is some
overlap in, for example, the contribution
on dopamine receptors and that on
neuroleptic receptors which appear in
different 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
danting 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-
ences 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-
cceeded?

The subject coverage is comprehensive,
embracing the majority of neurological and
neurosurgical 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, origi-
nately 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
dedicated 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
spheres, 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
attempts 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
orthodox, carbamazepine being the pre-
mier choice backed up by a polyphar-
maceutical recipe which would have impres-
sed my father, before the war! Neurosur-
gical contributions are of a high standard.

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 useful and not too complicated
algorithms, classifications and drug
regimes. These contain a wealth of up-to-
the-minute data, often difficult to find easi-
ably elsewhere. The book is pleasingly pro-
duced and clearly printed, but the index is
awful! I could not find cranial arteritis, or
the tardive dyskinesia or hypoglycaemia, yet
they are dealt with, albeit briefly, in the
text if the reader is patient.

Despite these shortcomings, which with
some 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 that.
It will reside in my hospital office, adjacent to
the ward, and I am sure it will be frequent
use. A most welcome addition to the justly respected Current Therapy Series.

JMS PEARCE