subject presenting great technical promise but subject to considerable hyperbole. This book is a sober articulate statement which points the way forward, defining interdisciplinary opportunities without minimising the complexity and difficulties such scientific interaction will bring.

D. Ganderton

Receptor Binding in Drug Research (Clinical Pharmacology, Vol. 6)

Edited by Robert A. O'Brien

Marcel Dekker; New York, 1986

xx + 519 pages. USA and Canada $89.75; elsewhere $107.50

In the Foreword to this book it is suggested that 'binding techniques... are now truly relevant to the needs of mankind'. However, there can be no doubt that receptor binding as a methodology has become a 'mature' science and an accepted way of life in drug research. It is a commercially viable technique and this text reflects such a drug development perspective. The coverage of this vast literature is not all-inclusive, as the Editor's stated intention is '... to present some philosophies for use of receptor pharmacology ... in some of the most challenging therapeutic areas'.

The text is divided into five sections. Part I contains two chapters; one on methodology and analysis, and the second on computer analysis. Both are well written and would appear to provide an excellent introduction to problems and considerations required in receptor binding studies. Whether there is sufficiently in depth information in this section to interest the committed 'binder' I cannot judge.

The next three sections are devoted to receptor screening as applied to (Part II) specific therapeutic areas, (Part III) multiple therapeutic areas, and (Part IV) peptides, growth factors and endogenous ligands. Specific therapies include the benzodiazepines, neuroleptics, antidepressants, psychomotor stimulants and the opiates. Receptors with multiple therapeutic implications are those for leukotrienes, purines, steroid hormones, calcium and muscarinic cholinergic compounds. The third of these sections deals with receptors for interferon, platelet-derived growth factor, insulin and cholecystokinin. Although each chapter provides a brief review of the literature, most of the text deals with the techniques and the conditions required for the particular assay(s) in question. Some chapters focus more on methodological development (muscarinic cholinergic receptors); while, others provide more information on drug actions in well established binding protocols. Individually the chapters are interesting and informative, but the format is so repetitive that I found it difficult to maintain the necessary concentration.

The last chapter in Part IV and all of Part V deal with receptor methodologies for identifying endogenous ligands and new drugs especially antidepressants, anxiolytics and cholinergic agents. Chapter 19 describes attempts and failure to identify a benzodiazepine ligand isolated from human serum. The authors highlight the problems and pitfalls they encountered and by doing so emphasize most effectively the need for adequate controls and for structural analysis of suspected ligands. Finally, in the section on drug development there is a very interesting discussion of the importance of considering possible interactions of a drug with more than one receptor system. Binding studies generally seem to focus on one receptor, ignoring or overlooking possible multiple activities of a drug. Yet the importance of such considerations is

emphasised in the chapter on antidepressants, where the succes of studying such drug interactions with multiple drug receptor systems was not in predicting the antidepressant potency, but the possible side effects.

The book is well presented and achieves the Editor's aims in many of the chapters. Whether these areas of receptor binding are truly at the frontier of future drug development only time can tell. But as a reference for those not directly involved in the field or for other 'binders' to see what is going on in various areas of therapeutic interest, this must be a useful, but expensive source.

R. Bruce Holman

Drug Research (formerly Arzneimittelforschung) is an international peer-reviewed journal with expedited processing times presenting the very latest research results related to novel and established drug molecules and the evaluation of new drug development. A key focus of the publication is translational medicine and the application of biological discoveries in the development of drugs for use in the clinical environment. Articles and experimental data from across the field of drug research address not only the issue of drug discovery, but also the mathematical and statistical methods for evalu In drug development clinical pharmacology forms not only the all-important link between preclinical and clinical research providing the necessary prerequisites for targeted clinical trials, but also the link between clinical efficacy and drug concentration. With the aid of experimental and biochemical pharmacology, toxicology and clinical chemistry, clinical pharmacology deals with the safety and tolerance, working mechanism, pharmacokinetics and metabolism of a drug in the human organism under physiological and pathological conditions. The aim must be to increase knowledge in the field of pha â€œThe six year old and the 14 year old who received suramin said the first sentences of their lives about one week after the single suramin infusion,â€ Naviaux told the UC San Diego Health website. â€œThis did not happen in any of the children given the placebo.â€ Inspiration post: Artist sketches incredibly detailed drawings of urban landscapes (PHOTOS, VIDEO) @stwilshire https://t.co/PCdhkgq9hI pic.twitter.com/NrJExgFq02. â€” RT (@RT_com) May 6, 2017. The Centers for Disease Control and Prevention estimates that about 1 in 68 children are affected by autism â€“ which is more than four times more comm New Drug Approval Process: Clinical and Regulatory Management, edited by Richard A. Guarino 31. Transdermal Controlled Systemic Medications,edited by Yie W. Chien 32. Drug Delivery Devices: Fundamentals and Applications,edited by Praveen Tyle 33.Â Receptor-Based Drug Design, edited by Paul Leff 90. Automation and Validation of Information in Pharmaceutical Processing, edited by Joseph F. deSpautz 91. Dermal Absorption and Toxicity Assessment, edited by Michael S. Roberts and Kenneth A. Walters 92.Â Biomarkers in Clinical Drug Development, edited by John C. Bloom and Robert A. Dean 133. Pharmaceutical Extrusion Technology, edited by Isaac Ghebre-Sellassie and Charles Martin 134. 19 The Clinical Research Process in the Pharmaceutical Industry, edited by Gary M. Matoren.Â Pharmaceutical Process Validation, edited by Bernard T Loftus and Robert A Nash Anticancer and Interferon Agents Synthesis and Properties, edited by Raphael M Ottenbrite and George B Butler Pharmaceutical Statistics Practical and Clinical Applications, Sanford Bolton Drug Dynamics for Analytical, Clinical, and Biological Chemists, Benjamin J Gudzmowicz, Burrows T Younkin, Jr, and Michael J Gudzmowicz Modern Analysis of Antibiotics, edited by Adjoran Aszalos.Â Receptor-Based Drug Design, edited by Paul Left 90. Automation and Validation of Information in Pharmaceutical Processing, edited by Joseph F deSpautz 91.