

Book Review

Biotechnology of Insulin Therapy

Edited by John C. Pickup

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186 pages

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As suggested by the title, this book covers many diverse subject areas associated with insulin therapy of diabetes. The book begins with an overview of the problems of current methods of insulin delivery and provides a useful background against which the other chapters are set. The presentation of the subsequent chapters follows a logical sequence from the present day availability of human insulin from recombinant DNA sources to the prospects for gene therapy in diabetes.

Each of the eight chapters is well introduced and the reader is carefully guided through a substantial amount of literature. In each case the reference section is up to date and draws on work both from the authors' laboratory and from other laboratories.

The title of the book may lead readers to expect a substantial amount of the text to be devoted to obtaining insulin by recombinant DNA technology. This is not the case, rightly I believe, because the focus of this book is insulin therapy and not production. The one chapter on recombinant DNA technology is well-written and avoids the frequently-encountered overuse of jargon. New developments in human insulin analogues, which may mimic more closely the normoglycaemic situation are clearly explained. The chapter on sustained release implants covers the pharmaceutical aspects of matrix materials, but stops short of describing the mathematics of release kinetics. This in no way detracts from the work and good weighting is given pump technology, including those which are pH dependent and

incorporate glucose oxidase. The chapter on bioartificial pancreas technology draws on a number of subject areas of interest to the pharmaceutical scientist, including immunoprotection of islets by encapsulation in alginate-polylysine-alginate microcapsules. Two chapters deal with the long hoped for areas of oral and intranasal insulin. Both chapters review the literature carefully and do not neglect the current shortcomings of these methods. The use of liposomes, emulsions, polymers, absorption enhancers and mucoadhesives is covered. Insulin delivery based on response to biosensors is covered in chapter 7. The technology of biosensors is well explained and supported, as throughout this book, with excellent diagrams. The final chapter deals with gene therapy and cellular engineering and as with the earlier chapter on recombinant DNA technology, it is refreshingly free from jargon and yet is informative and up to date.

I found this an excellent book which will be of interest both for students and research workers in several disciplines including physiology, pharmacology, molecular biology and pharmaceuticals. In the preface, the editor reminds the reader that it is some 70 years since the introduction of injectable insulin therapy, and yet despite its associated problems, frequent injection is still the only method of treatment for insulin-dependent diabetes. One of the guest authors quotes Jules Verne 'there always comes a time when the creations of science surpass those of the imagination'. This is the impression that this excellent book leaves with the reader. It may not be another 70 years before the next major advance in diabetes treatment.

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Book Review

Medical Dictionary of the English and German Languages (Medizinisches Wörterbuch der deutschen und englischen Sprache)

By Dieter Werner Unseld

Published 1991 Wissenschaftliche Verlagsgesellschaft mbH, Stuttgart

700 pages. Two parts in one volume

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December 31st, 1992, signals the completion of the European Single Market. It marks thus the date on which goods, services, capital and labour can move more freely between the member states of the European Community. Though there continue to be problems in the recognition of what are called 'equivalences' in Euro-speak, it can be assumed that medical personnel will increasingly travel from one European country to another to practise their profession.

Unseld's Medical Dictionary of the English and German languages should provide a valuable vade-mecum for English-speaking operators where German is the native tongue and vice-versa. Its value stems from the fact that the German-English and English-German sections are contained in a single volume, and coverage of essential terminology is quite comprehensive.

Nevertheless, compromises have had to be made in order to squeeze the proverbial quart into the pint pot. The major compromise relates to the context in which a word is used. Thus,

on looking up the word 'cold', one sees 'kalt', 'Kälte', 'Erkältung', with no accompanying explanation that 'kalt' is the adjective and 'Kälte' the noun referring to temperature, while 'Erkältung' relates to a cold in the head.

Though the genders of all nouns in the German language are indicated, a further compromise has been made in the omission of references to strong or weak verbs in either language. Thus English-speaking staff should not be surprised if a German colleague produces such gems as 'Have you feeled much pain recently?' or 'Where do you say you have been bited?' The howlers that might be committed by native English-speakers working in Germany are just too horrible to contemplate.

Yet one should not carp. A former prime minister proclaimed that 'You cannot buck the market'. This book is now in its tenth edition, so it must be successful with both students and practitioners alike.

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