INFORMATION SOURCES IN BIOTECHNOLOGY

Second Edition

A.Crafts-Lighty

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Introduction

The purpose of this book is to describe the information sources which are available in the field of biotechnology. Biotechnology is a multi-disciplinary applied science and an exciting new field of endeavour. It has captured the imagination of both business and the general public and as a result, has received substantial attention in the press over the last ten years. The governments of most developed countries have allocated large sums of money to support research and industrial development in biotechnology and over 500 specialist biotechnology companies have been formed world-wide, many of whom have made very successful public share offerings. As a result of all this, the proliferation of articles, books, journals, patents and newsletters about biotechnology has been nothing short of staggering. Most people have, probably, heard of biotechnology by now, but few seem to know how to find out more about it. As the manager of information services for Celltech, the UK's major specialist biotechnology company from 1981-1985, I receive many letters and telephone calls from students, teachers, researchers, business executives and librarians asking for advice and assistance in finding information about biotechnology and clearly finding it hard to know where to start. This book is for all those people and all the others who have been struggling valiantly alone or contacting my colleagues around the world.

In mid 1983, when the first edition of this book was written, biotechnology was definitely an 'in' subject; a buzzword even, increasingly used to create a high technology image by companies and universities in the hope of attracting attention and money. By early 1986, the glamour has worn off only a little and though the vogue among publishers for anything biotechnological has diminished some what, the flood of new information is still considerable.

One aspect of biotechnology, genetic engineering, is still a topic of considerable public interest and debate because of the long-term possibilities it offers to alter and improve the genetic heritage of agricultural plants, farm animals and even human beings. This potential raises a number of important moral, ethical and ecological questions as well as posing a formidable scientific challenge but there is much more to biotechnology than genetic engineering and much genetic engineering is only concerned with the manipulation of bacteria and yeasts, not

higher organisms. Biotechnology can, with some difficulty, be defined and treated as a single subject area, albeit one with very fuzzy edges! At least ten different definitions have been published in the last two years, each differing slightly in scope but all encompassing a wide range of industrial processes using biological systems and methods.

In this book, those information sources which are clearly concerned with modern biotechnology (as defined in Chapter 1) will be covered in the most detail. However, in many sections it has also been possible to mention some peripheral material which relate to specific applications for biotechnology and to more traditional biotechnological processes as well as some guides to particular types of information sources. The choice of which of these sources to include was often difficult, since no work on biotechnology in its broadest sense can be totally comprehensive and remain a readable, manageable size. Three further constraints were also placed on the coverage of this book. Only English language publications have been included, no works announced after March 1986 are reviewed and with the exception of a few special review issues mentioned in Appendix 201, individual journal articles are not listed.

Chapter 1 briefly describes the science and business of biotechnology. This is intended as a first introduction to the subject for those who have little or no knowledge of it. Chapter 2 is an overview outlining the types of information sources available in biotechnology. Chapters 3 to 12 discuss particular categories of sources in detail and review the most important ones in some depth. Chapter 13 discusses library management of biotechnology material and the provision of information services in biotechnology. In each chapter, the aim is to provide brief critical reviews of the most important information sources, together with bibliographic details of many others. A final appendix contains a complete list of the addresses of all the publishers mentioned in this book. Additional appendices at the end of some chapters give lists of publications for further reading and other information. For the readers' ease, the tables have been placed at the end of each chapter just before the appendices.

It is inevitable that a few information sources will have been omitted and, as time goes on, of course, many new works will appear. In the appendices of this second edition, new or substantially altered entries are indicated with an asterisk so that new material may be spotted easily. It is hoped that a third edition of this book may be produced and, therefore, the author would be grateful to be notified of any omissions which readers may detect. All views expressed in this work are these personal opinions of the author and do not constitute any endorsement or otherwise of any cited source by the author's previous employers, Celltech Ltd or the author's company BioCommerce Data Ltd and no liability is accepted for any errors or omissions.