

## Book Review

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### Molecular biology in medicinal chemistry

Wiley-VCH: 2004  
413 pp; price £105.  
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As part of the Methods and Principles in Medicinal Chemistry series, this volume is a welcome addition to the library of anyone seeking to build a multi-disciplinary group. It can be broken down into four sections: definition of molecular targets; drug synthesis; drug analysis; and drug metabolism, kinetics and toxicology. At first one wonders how such a broad range of topics could be addressed in one volume, since each one can be considered by many to be separate disciplines. However, the editors have invited contributions that illustrate the wide range of techniques that are potentially available to anyone interested in drug discovery. It is more than a simple listing of techniques though; many are given a comprehensive but short introduction, and it is left to the reader

to follow this up from the references supplied. Others are outlined in more detail, with some of the pitfalls explained. It is difficult to select any one chapter for criticism or praise since the subject matter is so wide, but this book is an excellent introduction to methods that need more explanation than this volume can give, and so should provoke useful discussion.

My one criticism is that many of the techniques described in this book are divorced from the pathology of the disease under study. This criticism can be levelled at many other texts, but I consider that definition of molecular targets and the subsequent design of drugs to affect these targets without reference to the gross appearance of the disease (human or veterinary) in the patient may be, in the end, a purely academic exercise. The techniques described are sophisticated, and many require substantial funding to establish and considerable expertise to interpret. So, this tome should be read with caution: any group seeking to use many of these methods should first decide whether (or not) these are applicable to their own particular research strategy and, further,

whether these are applicable to their field of interest.

The title of the book says it all: *Molecular biology in medicinal chemistry*. Both are powerful disciplines, and this is where this book succeeds: it describes methods that may be applicable, but also may teach the different groups just where they can help each other. This should be required reading for any medicinal chemist wondering just what those biologists up the corridor actually do and can do, but also by any biologist wondering what's holding up the pure compound that they have been expecting. This book may help to break down the traditional barriers that exist between the disparate groups and forge a more multi-disciplinary approach to drug discovery. I approve.

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