

Because of the simpler structures of the epothilones, the synthetic routes are shorter. Synthesizing epothilone analogues may therefore be a lot simpler, with less waste and better yields, and may circumvent the need for complex biotechnological routes. The generation of analogues will provide new candidates and help to illuminate the way in which paclitaxel and the epothilones block the disassembly of microtubules during cell division.

Danishefsky's synthesis involves building the basic skeleton of the com-

pounds in a linear form from much simpler starting materials and then using an aldol condensation to 'stitch' the two ends together to make a ring. According to Danishefsky, the synthesis provides workable amounts of material for further experimentation and also allows analogues to be made quickly that are simply not available from bacterial brews.

Nicolaou and his team, again, started with simple materials, but they built up three fragments of the epothilone molecules and then locked them to-

gether to form the ring, rather like piecing together a molecular jigsaw. Nicolaou believes that his route too will allow a whole library of analogues to be made, which will hopefully include examples suitable for clinical development. He is confident that 'A practical [production scale] synthesis for epothilone, or an analogue of it, is a very real possibility'.

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Book review

Cost-Effective Strategies for Automated and Accelerated High-Throughput Screening edited by K. Emory and J. Schlegel, IBC, 1996. \$795 (comm.)/\$495 (acad.) (over 400 pages)

A relatively new spin-off of commercial conferences, which are rapidly increasing in number, is to sell the conference proceedings. These books are often prepared from audio recordings of each presentation, edited, then updated by the speaker with new information, figures and references. The documents may benefit scientists unable to attend the meeting and may also allow staff to access selected information from a meeting in a more comprehensive manner than is possible by reading an attendee's notes or trip report. Unlike the hard-copy documents usually provided at the meeting, the figures and tables in the proceedings book are of high quality and follow in a logical order.

This book is an example of such a document and is based on a conference of the same name organized by IBC in June 1995. It focuses on new assay and detection technologies, strategies for optimizing sample handling and approaches to automating HTS assays. The chapters are organized to give a brief background and clear examples so the reader has an appreciation of the state-of-the-art on each topic. Most of the chapters conclude with questions and answers transcribed from the original meeting.

Six of the 16 chapters are devoted to hardware companies describing their robotics and detector systems. Another six chapters are overviews supplied by emerging pharmaceutical companies giving examples of their strategies for identification of novel molecules. The remaining four chapters are divided equally between academic programs for lead identification and approaches taken by established pharmaceutical companies.

In order for an expensive book like this to be worthwhile, it is critical that several factors be addressed. First, the material must be timely. Second, it must be in sufficient detail to allow the reader to assess the relevance of the topic to their own

research projects. Third, the material should not be so simplistic that it insults the intelligence of readers.

Several of the chapters meet these criteria. The chapters describing new homogeneous assays, luminescence assays and fluorescence techniques give a good overview with detailed examples. Similarly, the two chapters by authors at established pharmaceutical companies provide good background information on sample mixing strategies and setting up an assay for identification of Ras inhibitors. Regrettably, not a single chapter gives specific examples of how the strategies yielded an efficacious molecule, and many chapters are strongly biased towards the authors' points of view. In order for the less experienced reader to make a knowledgeable conclusion, however, a balanced approach should be presented.

In conclusion, I believe that this type of document represents yet another attempt to capitalize on science, and that the book suffers from being expensive, largely outdated and somewhat biased. There are much better ways for a scientist to gain insight into new areas – for example, many presenters who take the time to prepare hard copies of slides for the on-site meeting booklet would be willing to mail a copy to interested colleagues. Similarly, manufacturers of hardware and software products are more than happy to provide their scientific literature. Finally, it does seem oxymoronic that a book with 'cost-effective' in the title is so expensive and that not a single chapter (except the introduction) even mentions how this process can save money.

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