

Drug Discovery Today and the status quo



The Editor outlines the role of the new magazine in an environment of change

Drug discovery is, increasingly, a process characterized by change in an industry under many commercial and regulatory pressures to change. The shift in emphasis from the manufacturer to the consumer in determining the priorities of the industry has ensured that cost has become a primary issue. In a highly competitive environment, where regulatory requirements are becoming ever more stringent, and where the industry can no longer rely on the 'me too' soft options of the past, time has become another overwhelming consideration. And as we all know, time is money.

In the past decade, drug discovery has evolved a unique multidisciplinary culture, as technologies have advanced and priorities have shifted towards the development of novel agents in areas of currently unmet medical need. In this complex environment, *Drug Discovery Today* aims to guide the way for research professionals.

Such external pressures mean that hard decisions must be taken regarding existing portfolios, and clear goals or milestones become essential; the priority must be to succeed or to fail fast. At the 1995 meeting of the American Association of Pharmaceutical Scientists, Dr C. Cimarusti (Bristol-Myers Squibb, New Brunswick, NJ, USA) pointed out that, on average, every drug in development is costing US\$2,660 per hour, but a blockbuster that earns US\$1 billion per year earns the company \$114,000 per hour. Cost and time concentrate the mind.

Changing technologies within the industry, however, offer key areas for competitive advantage to be gained. Keeping on top of the new technologies is the problem, but this is essential in order to make rational strategic decisions, to evaluate potential collaborators or to invest in the right technology.

Rapid technological advances have been achieved at each stage of the discovery process. Developments in genomics and biotechnology have led to an explosion in the identification and characterization of new targets and hence bioassays for screening for new leads. To accommodate this growth, there have been major advances in high-throughput technologies and data handling, and these continue to evolve. In recent years, the rate-limiting step has been the number of compounds available to

screening programmes, and the pressure is now on the chemist to supply sufficient and relevant compounds to meet such needs.

The advent of combinatorial chemistry is widening the bottleneck. Systems for both liquid- and solid-phase systems compatible with high-throughput technology have now been developed. Huge numbers of compounds – literally millions – are becoming accessible through these techniques. These new chemistries, perhaps combined with more established methodology, such as structure-based design, as in the newly patented Directed-Diversity™ technology of 3-Dimensional Pharmaceuticals, will contribute to the continuing evolution of drug discovery.

'combinatorial chemistry is widening the bottleneck'

So, our aim in launching *Drug Discovery Today* is to provide information that will ultimately save you time and cut the cost of research. How will we do this? The magazine will present topical articles from recognized experts reviewing recent developments in research on new drug targets, lead generation and optimization, important disease states, classes of compounds and their pipeline performance, new technology and current thinking on strategic and management issues of direct relevance to R&D. All articles submitted for publication will be subject to rigorous peer review. In the *Update* section of the magazine, dedicated journalists will report on interesting new findings, provide feedback on how different groups are performing their research, and report on changes within the industry and other events that impact on pharmaceutical R&D, either directly or indirectly. The *Monitor* section will provide expert commentary on the latest new targets, molecules, techniques and synthetic methodology reported in the literature and on the conference circuit.

We aim to provide the information that you need; this is *your* magazine. We welcome constructive comments about the content of *Drug Discovery Today*, and encourage you to write to the Editor if you find the issues presented thought-provoking or controversial. If you feel that specific topics should be addressed, let us know, or even propose an article.

Most of all, we hope that you enjoy the magazine. In raising awareness of *Drug Discovery Today*, we have used the slogan 'A New Industry Standard'. The editorial team will do everything in its power to ensure that *Drug Discovery Today* fulfils this promise by creating a central forum for the discovery community.

David Hughes