

► Matters of money

Drug companies' advertising on the Web is increasing steadily.

To compete and stay on top of the latest marketing trends, pharmaceutical companies find it crucial to make use of the Internet, a medium used by roughly 650 million potential consumers worldwide. The standard channels of advertising for most marketers are television, radio, newspapers, magazines, brochures, pamphlets, and billboards. Among these, television is considered the most effective and, by far, the costliest. Because of this expense, advertising on the Internet is on the rise, providing text, animation, pictures, and sound without the high cost and regulations associated with television. Most products and services have jumped on the Internet bandwagon, making it the fastest-growing marketing avenue for all types of goods, and pharmaceuticals are no different.

Pharmaceutical marketing has changed considerably since the onslaught of advertising on the Internet. Before then, the primary audiences for prescription drug advertising were health care professionals, because prescription drugs were not promoted directly to consumers. The key methods used before the World Wide Web included samples, package inserts given to

health care professionals, and advertisements in professional journals. The prescription-advertising scene changed, however, on May 19, 1983, when Europe-based Boots Pharmaceuticals (now a component of Abbott Pharmaceuticals, www.abbott.com) advertised its pre-



scription drug Rufen (ibuprofen) directly to consumers via television. By 2000, there were 50 drug companies using what is known as direct-to-consumer advertising (DTCA). Since Rufen, there has been a steady and dramatic increase in DTCA of

prescription drugs by the pharmaceutical industry. Now television commercials direct consumers to company websites, which usually give additional information that a television ad cannot provide, such as a prescription drug's indications and side effects, as well as company financial reports, R&D efforts, and stock prices.

The promotional efforts by pharmaceutical companies on the Internet usually are not subject to the same rigors as other types of advertisements. In the United States, a company can avoid the censors of countries that do not allow Internet advertising of prescription drugs. The company

can also be selective in determining what customers to target for future mailings based on demographics information gathered from the website.

Because websites are accessible almost anywhere in the world, and a new one is launched about every three seconds, it is difficult for the FDA to keep physicians and consumers in the United States from seeing drug promotions that are not permitted in print. A webpage may be considered advertising, labeling, publishing, educating, or broadcasting. Each of these is governed by a different set of FDA rules. The FDA has not determined whether it will formulate new regulations, issue guidelines, or apply the current rule structure to this new electronic environment.

The future of e-marketing for pharmaceuticals appears to be on an upswing. With computers and Internet access becoming less expensive, it has proved beneficial for pharmaceutical companies to promote their products on the Internet. Unfortunately, consumers are known for not questioning the accuracy of product information, particularly on the Internet. Because there are no standards or regulations restricting what information is dispersed, it is up to the manufacturers to provide reliable and current information. Giving false information in television or radio advertisements could result in lawsuits, but currently, there is no penalty with regard to the Internet.

—FELICIA M. WILLIS

Industry items

Johnson & Johnson Pharmaceutical Research & Development (www.jnj.com) is the first company to gain early access to the new **Affymetrix** (www.affymetrix.com) GeneChip HighThroughput-Array Human Genome U133 Array.... **BioTrove** (www.biotrove.com) purchased an intellectual property portfolio covering through-hole array technology from **Genencor International** (www.genencor.com).... According to **Amersham Biosciences** (www5.amershambiosciences.com), **Isis Pharmaceuticals** (www.isispharm.com) completed the world's largest antisense oligonucleotide synthesis scale per single run—more than 4 kg of 20mer

oligonucleotide in about 5.3 h—using Amersham's Oligoprocess.... **Cyclacel** (www.cyclacel.com) entered into a worldwide distribution agreement with **MRC geneservice** (www.geneservice.mrc.ac.uk) for Cyclacel's proprietary *Drosophila* RNA interference collection.... Biotech tools company **Cellectricon** (www.cellectricon.com) licensed **Axon Instruments** (www.axon.com) to have sole access of Cellectricon's patented electroporation technology for rapid internalization of DNA, drugs, and large molecules into cells.... A newly combined company called **Biotage AB** has been formed from the acquisition of **Biotage, LLC** (www.biotage.com) by **Pyrosequencing AB** (www.pyrosequencing.com).