

3.1 The Urge to Merge

Because of heavy regulation by the U.S. Food and Drug Administration (FDA) and other agencies, getting human and even animal health-related products to market is an extremely costly and time-consuming undertaking. To be successful, small companies require extremely heavy public financing and/or allegiances with larger, well-established firms. Because of this, mergers and acquisitions between biotechnology firms are on the increase. Many biotechnology companies are pursuing partnerships to further their goals of becoming big, independent drug companies. According to the *Journal* article, the secret to successful collaborations is "to make sure you have a champion at the larger company who believes in your product. And if the partnership doesn't work out, consider buying back the technology from the larger company before the project dies on the vine." In 1991, collaborations between biotechnology companies accounted for about half of all U.S. pharmaceutical research alliances, according to Ernst & Young, a major U.S. accounting and management consulting firm.

As a result of all the hype, stock prices of publicly-held U.S. biotechnology companies soared through 1991 and 1992. A year later, the bloom was off the biotechnology rose. According to an article in the February 26, 1993 *Buffalo News*, Wall Street analysts were warning investors to stay away from more than a dozen biotechnology stocks after industry leader Amgen, Inc. came out with a poor earnings forecast and had its shares plunge \$9.25 to \$37 in trading of 22 million shares. The shares have since dropped more. Five companies indefinitely postponed plans for their initial public offerings (IPOs) as a result of the debacle. Financial data received from some of the public companies for this study indicate some very unfavorable financial situations. This industry is far from stable!

3.2 U.S. Leadership / International Development

Due to its large investment in biotechnical research and its highly entrepreneurial environment, the U.S. has led in discoveries and the commercial introduction of biotechnology products during the past several decades. The nation is expected to continue to play a preeminent role in the introduction of innovative products, but commercial application of new biotechnologies is still in its infancy worldwide, according to *The U.S. Industrial Outlook 1993*. Six of the world's top ten leading pharmaceutical companies and agrochemical companies are European Community based, four are U.S. companies.

Although commercial development is primarily national in scope, product and process research and development are highly internationalized. Articles entitled "International Strategic Alliances" by Richard A. Schwartz and Mark D. Dibner and "International R & D is the Rule" by Cynthia K. Wagner in the May 1992 issue of *Bio/Technology* shed some interesting light on the question of internationalization.