THE LAST WORD/

OF SOUND BITES AND BIOTECH

by Lyn Christenson

Abraham Lincoln once said, "With public opinion, nothing can fail. Without it, nothing can succeed." While he was dealing with a different kind of war, his words also apply to biotechnology's battle against human disease.

Companies have, to date, brought to market ten human therapeutic biotech products. According to a recent report from Montgomery Securities (San Francisco, CA), these ten products generated an estimated \$600 million in 1988 sales in the United States. Nearly twice that many products should come to the market over the next five years, representing a cumulative potential U.S. market of \$1–2 billion. Montgomery further estimates that, in the next ten years, a quarter of hospital drug sales could come from biotechnologically derived products.

These new therapeutics are not aimed at obscure diseases: they address major killers including heart attacks, cancers, and acquired immunodeficiency syndrome (AIDS). The true nature of this coming revolution in health care, however, often remains a well-kept secret from the public, its ultimate beneficiaries.

In recent months, headlines about biotechnology companies referring to dark clouds, gloom, and failed promises have become common. These conclusions may not be all that surprising since, according to the Montgomery report, over half the biotech companies developing human pharmaceuticals are at or near their all-time stock price lows. It appears that there are many *former* investors in biotech.

This atmosphere is further clouded by the generally awful state of science literacy in the U.S. In a 1986 nationwide study for Monsanto (St. Louis, MO), Northern Illinois University (DeKalb) found that one-third of the adults surveyed did not understand the elementary concept of a molecule. Two-thirds were not familiar with the term DNA. Nearly half said they believed space shots had changed the weather.

In 1986, a U.S. Department of Education study found that U.S. ninth graders ranked *second to last* in science knowledge in a 15-country comparison. Indeed, the state of science literacy—or illiteracy—makes a strong argument for a conscious partnership between the biotech community and the media to inform and educate the public about a technology that is—not that might be—a major part of their futures.

Companies can help their own cause. Too often, in media interviews, we get in our own way. Our job, it seems to me, is to remember to speak plain, direct English. When we're tempted to use words like pharmacokinetics, supernatant, or endothelial in an interview with the non-science media, we should remember that two-thirds of the potential readers may not know what DNA is. We should also remember to reinforce, without overstatement, the benefits biotechnology will yield.

Nor are media interviews the right place to describe the entire history of a project in comprehensive detail. As we learned from last year's election, we live in the era of the 20-second sound bite. Reporters have limited time and, as generalists, sometimes an even more limited knowledge of science. It is in our best interest to describe our work in broad strokes, as we would to our brother-in-law, our stockbroker, or our child's kindergarten teacher—an average adult whose last science class was college botany. Their taxes are providing millions of dollars in grants from the National Institutes of Health and \$100 million in funding for the human genome initiative. They can be advocates for biotechnology, and we should not complicate the simplicity of the message.

To the media, I put forth two ideas. First, recognize the not-so-hidden agendas of industry gadflies who make their living creating unnecessary fears and putting unjustified obstacles in the paths of desperately needed new therapies. Media visibility is essential to their livelihood. In the attempt to provide "balance" and solicit a countering viewpoint, the media may help fill their need for exposure. The media should not be swayed by the wordsmithing of the gadflies, who often manipulate scientific reasoning to their own ends.

Secondly, work with us to educate your reporters about basic science. This helps them avoid reporting on the industry with undue pessimism or optimism. When we are in the middle of a breaking news story, it is not the best time to educate reporters about biotechnology in all its facets, yet this is when it most often happens.

California Biotechnology has sponsored a lecture series at the Columbia Graduate School of Journalism (New York, NY), which has brought leading national print and broadcast medical and science reporters together with some of tomorrow's most promising journalists. We all learned a lot about working better with each other. For instance, a senior science reporter for a major national daily newspaper said that, after a career of nearly thirty years, he had rarely, if ever, used the word "breakthrough." This is valuable perspective when bringing together companies and the media.

An open and constructive relationship with the media, and through it with the public that supports our efforts with tax and investment dollars, will be essential if biotechnology is to successfully deliver on its therapeutic promise. And the price for failure, in human terms, is unacceptably high.

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