THE LAST WORD

by Rep. George E. Brown, Jr.

TIME TO EDUCATE LEGISLATORS AND VOTERS

As biotechnology enters the marketplace, it leaves the relatively cloistered environment of the research laboratory and comes into full contact with society. The future of this promising area of enterprise will be determined by the ability of the industry to come to terms with this collision of science and society.

The boundaries of the coming encounter were glimpsed during earlier debates which led to the establishment of the recombinant DNA (rDNA) research guidelines. As a Member of the House Science and Technology Committee, I participated in hearings on this topic during the 1970s and saw the need for a better informed public and a more aware scientific community as biotechnology reached a commercial threshold.

These earlier debates brought claims of environmental dangers resulting from rDNA research. There were ethical challenges made to this research and a questioning of the propriety of genetic manipulation. The pope and other religious leaders have questioned rDNA research. The passage of time and the absence of any accidents have quieted some of this criticism. But research done on disabled organisms in small batches in confined laboratories is not the same as the undertakings that we now envision, and the challenge facing us is much greater.

As a Member of Congress for 20 years who has spent most of his time on scientifc and technological issues, I see the commercialization of biotechnology as an historic event. These technologies will change our lives in ways not yet foreseen and hold tremendous promise for society. New medical treatments, new drugs, a biological revolution in agriculture, and another revolution in industry, can all be glimpsed. Yet we are also entering a world about which scientists know very little, and about which policymakers and the public know even less.

One thing that I have learned in my 20 years in Congress is that government is a reactive institution which does a poor job of anticipating change. During periods of rapid change it becomes a reactionary institution, seeking stability in past successful approaches. In addition, government is not well equipped to deal with change born of scientific breakthroughs, and it suffers from unclear policy in the area of science and technology. All of this poses problems for the commercial development of biotechnology, especially rDNA technologies.

In 1981, at the Battelle conference on genetic engineering, I stated that this area would enjoy a short honeymoon as society lagged behind in its understanding of scientific advances. I urged that the emerging biotechnology industry take advantage of this technological lag to engage in introspection and make some attempts at self-regulation to preempt any formal regulatory effort by government. I also urged that the industry engage in public education and that they seek out their critics in an attempt to reach some understanding with them.

More recently, I have advised the Federal government to proceed slowly with regulations and to take a comprehensive view of this issue, which affects nearly every health and safety, environmental, and proprietary ownership statute. Having seen a single agency or Congressional Committee move on a complex issue and set an inappropriate precedent for other, parallel actions, I did not want to see biotechnology commercialization ensnared in a piecemeal regulatory process.

After a decade of work on biotechnology in Congress, and after some years of nagging on this issue, I see mixed results. On the positive side, the Office of Science and Technology Policy (OSTP) has a working group on biotechnology which has identified existing regulatory authorities and has developed a guidance notice for treatment of unique microorganisms. This group, while not moving fast enough for some people, is working to anticipate problems that might hinder the biotechnology industry in the future, and it is seeking to develop a clear, consistent road map to guide this industry through the regulatory maze.

Congress, on the other hand, is not moving ahead with a comprehensive approach. We are still observing rigid Committee jurisdictional boundaries and, outside of a few Committees, there is little work being done to develop a hearing base for the consideration of legislative change, should change be needed. This lack of activity on Capitol Hill poses a threat to the industry should some event precipitate Congressional action before a hearing record is developed. It also points to a need for those in the biotechnology industry to double their efforts to educate the public and policy-makers.

The biotechnology industry faces a skeptical public which has been asked to trust science by physicists and chemists. After Three Mile Island and Love Canal, the public is less willing to trust scientific judgments of public risk and must be convinced. The public education effort must be comprehensive and include discussions with the harshest critics of commercial biotechnology, no matter how uninformed or irrational these people may appear to the scientific community. We in Congress have a name for both informed and uninformed people: they are called voters. We cannot arbitrarily dismiss the opinions of significant groups and neither can the biotechnology industry.

There is still much research to be done in understanding the microbiological environment if we are to present an adequate assessment of risk to regulators and the broader public. The biotechnology industry has a special responsibility to keep the public informed of progress and of any new risks which might be posed. To do less is to invite disaster.

The commercial development of biotechnology excites me, and I am proud to be in Congress at a time when a major new industry is being born. If the social understanding has been born as well, we are on the threshold of an era full of promise.

Representative George E. Brown, Jr. (D-CA, House of Representatives, Washington, D.C. 20515) sits on the House Agriculture and Science & Technology Committees.