

THE LAST WORD

by Ronald Cape

WHO WILL YOU BLAME WHEN THE OTHER GUY WINS?

In November, I was the keynote speaker at a biotech conference in Singapore. The meeting was formally opened by the government's Minister of Finance and Health. I was pretty impressed by what this said about that government's interest in biotechnology. Two weeks earlier, I spent a week in Osaka at another biotech conference. I was not only impressed, I was astonished and envious to discover that Japan's Diet has a special committee, with over 100 members, called "the Society of Diet Members for the Development and Protection of Biotechnology." The chairman of this group in Japan's parliament is no less than the Minister of Finance himself.

I am very concerned. We are in a race, a very important international race. The trouble is, most of Washington—although always ready to mouth the familiar platitudes about the wonder and promise of biotechnology—exhibits behavior that is counter-productive at the very least. Remember that ours is a technology invented in the United States, which, if current trends continue, is almost certain to be dominated by Japan by the turn of the century. Let me be clear—I say this out of admiration for, not criticism of, the Japanese.

They know they're in a race; our people, brief public utterances notwithstanding, act as if they couldn't care less. They try to have it both ways, expressing pride in our accomplishments, and then repeatedly and deliberately sounding headline-grabbing alarms about its possible dangers—without a shred of data. Senators warn of "dangerous consequences." They privately describe individuals as menaces, individuals to whom they then offer public platforms. Members of the House lecture us that we should put the Third World first. I've actually seen essays by a powerful Congressman complaining that what we are working on are drain cleaners and cosmetics, whereas the U.S. taxpayers to whom we owe so much (and we do) really want us to work on a malaria vaccine. How does one deal with such demagogic nonsense? Our industry has made, considering the disincentives, substantial contributions to problems of developing nations. The major targets of the U.S. biotech industry are cancer, AIDS, cardiovascular disease, autoimmune disease, and serious infectious disease. Precisely what the taxpayer, the U.S. consumer, and the U.S. investor want—I'm certain of that.

And the successes so far speak for themselves so dramatically that I will only name a few. Removing the terror of AIDS from the nation's blood supply—that's done. Removing the terror of Creutzfeldt-Jakob disease from the users of human growth hormone—that's done. Spectacular clinical results in dissolving heart-attack-associated blood clots—that's done. And of course, really addressing the biggest dread to us all, there are promising clinical results against cancer. A few short years ago some were demanding that we stop cold on everything we were doing, which would have included promising work on interleukin-2 cancer therapy...for ethical reasons. They

wanted us to stop; they still do. You're playing God, they said; they're still saying it. Tell that to all the cancer, AIDS, and heart-attack victims.

I sometimes wonder what the alarmists think we should do. Or not do. Are we to stop our work while our society debates what is life, what part the private sector should play in healthcare, the way our society deals with the poor, and other issues? These are very important issues. They merit unprecedented public discussion. I resent, however, seeing these issues hijacked by those who march to a radically different drummer than the one heard by mainstream America. And are we so arrogant and blind as to think that, even if we were to stop, the rest of the world would stop too? On the contrary, while we're slowing down, they're speeding up.

As I said, we're in a race. Don't take my word for it. After all, my company only employs 620 people. Take a look at the behavior of the American establishment, with Monsanto and Du Pont, to name only a couple, committing hundreds of millions now, frankly declaring that it will be decades before the investment pays off. And the great European giants are demonstrating similar conviction. But most important, look at Japan. They state openly that biotechnology is the most important future development, and take what it will, they intend to lead it. I should stress the phrase "take what it will," because they realize and are prepared to publicly acknowledge that for the moment we far surpass them in the quality and quantity of our basic research. Basic research—it's the most important thing we do, in my opinion. Nobel prize count is one way to measure it. And the Japanese know they have to revamp their educational system to catch up with our Nobel prize lead. So they will revamp. And they will catch up.

If the Japanese deliver the goods first, we'll have only ourselves to blame. But we won't blame ourselves. Grandstanding speeches will be made that we're losing the race because of non-tariff barriers and a whole lot of other ways the Japanese aren't playing fair. They *are* playing fair...in biotechnology anyway. If we lose, it will be because of our own inaction. Japan knows there is a game, there is a race. And Japan is determined to win.

There was a headline in a San Francisco paper a few months ago. It said simply, "The Chip Race is Over. They Won."

Who would you bet on in the biotech race? And who will you blame when the race is over?

Ronald E. Cape, Ph.D., is founder and chairman, Cetus Corporation, 1400 Fifty-Third Street, Emeryville, CA 94608, and past president of the Industrial Biotechnology Association. This article is adapted from his testimony before the subcommittee on Oversight and Investigations of the House Science and Technology Committee. These opinions are the author's own, and are not necessarily those of Bio/Technology.