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TIMIDITY KILLS

A venerable fliers' proverb goes, "There are old pilots and there are bold pilots, but there are no old, bold pilots." A valuable warning to a class whose general cockiness is matched only by NFL quarterbacks and corporate CEOs. But boldness is not the only fatal flaw. Timidity, too, can kill.

The explosion of the U.S. Space Shuttle *Challenger* casts a long shadow. I generally resist easy analogies between the biotechnologies and the aerospace and nuclear industries (as represented by *Challenger* and Chernobyl, respectively). But it is worth remembering that the dragon's teeth that grew into the *Challenger* disaster were sown on a much happier day—the first successful shuttle launch, of *Columbia*, in April 1981. Five ensuing years of "space truck" publicity have wiped from our memories the gloom of the months leading up to that launch. Foul-ups were rampant. It seemed that "long-delayed" was an official part of the program's name: "America's long-delayed space shuttle."

I was part of a flock of media vultures roosting in special stands just a mile from pad 39A on the morning of April 12, when *Columbia* smothered all those doubts in a cloud of smoke that filled the horizon.

"From an engineering standpoint," said Walt Williams, NASA's chief engineer, "we've progressed to where we can do just about any damn thing we please. What we choose to do—that's beyond the ken of the engineer. That's society's wishes. And we can either be a bold society or a timid society. But if we choose to be a bold society, we can do bold things."

Now, scientists and engineers are part of society; the choice between boldness and timidity is ours, too. NASA and its contractors forgot that obligation, and timidity killed *Challenger's* bold men and women.

As it happened, the anniversary of that catastrophe coincided with the closing day of this year's *Bio/Technology* New Orleans Conference. A heated exchange there between two biotech executives—both among the most farsighted and upright in the industry—got me thinking about the price we pay in duty for the power now concentrated in our hands. The topic in this instance was immune-mediator therapy in general and interleukin-2 protocols in particular. One of the debaters warned of "the risk of a clinical trials disaster," in terms that caused the other to bristle at "snide name-calling." Yet, the basic data seemed undisputed: the vigor of the small biotech companies; the widespread responsible research interest in immune modifiers and occasional blatant publicity-seeking; the data indicating that some current protocols may work where other therapies fail; the sometimes awesome side-effects; the paucity of our knowledge of immune cascades of primers and triggers; the unknown impact of systemic application (especially for non-terminal conditions).

My own first reactions to the clash were timid and self-serving. The host and industry gate-keeper wanted to halt the exchange and change the subject. Think of the headlines: "Industry experts predict biotechnology disaster." Hmmm. Yes, think of the headlines. The journalist itched for public mudslinging.

So no one is immune to a malady we can ill afford. An industry too protective of itself will stifle critical discussion; decisions arrived at inadvisedly will blow up in our faces. But neither can we conduct these discussions in phrases that neatly fit in tabloid headlines.

Surely, we all realize that large companies and small companies live in different parts of the business wood. The ecologies are different, and they must follow different strategies to survive. Yet both are bound together by more than license agreements, merger plans, and a common regulatory procedure. In the public eye, they are part of the same biotechnological enigma. The errors of one will reflect on the other.

We need policy based on solid data and consensus. And that consensus-making should not be left solely to the researchers, the Food and Drug Administration, the National Institutes of Health. We need a place where corporate policy-makers can take up issues ripe for timid, self-serving fixes and, without rhetoric that will return to haunt them, arrive instead at bold plans that will serve both the industry and the public interest.

—Douglas McCormick