OTA WORKSHOP

TAKING A HARD LOOK AT COLLABORATIVE R&D

WASHINGTON, D.C.—The bloom is off the rose for collaborative research in biotechnology. If a recent Office of Technology Assessment (OTA) workshop on this topic is any indication, global concerns have been replaced by a new sense of nuts-and-bolts pragmatism. The potential advantages of industry-university and interdisciplinary cooperation have been obvious from the start, but the practical difficulties in achieving valuable research and technology transfer have now become apparent as well.

One of the better-known such biotech collaborations, the five-year, $8-million W.R. Grace-MIT agreement, expired at the end of April and is not being renewed. Kenneth Smith, associate provost and vice president for research at MIT (Cambridge, MA), reports that this decision came from the *Fortune 50* chemical concern: "As Grace has evolved, their interest in biotechnology runs a lot less deep than they thought it did," he says, adding that Grace now maintains a great deal of contact with the field through its Agracetus (Middleton, WI) joint venture with Cetus Corp. (Emeryville, CA). According to Vincent Simmon, vice president for biotechnology at W.R. Grace (Columbia, MD), a number of key Grace employees left during the term of the pact, and the company is no longer as interested in amino acids. In addition, he says, Grace had been paying a premium of about 20 percent for the umbrella agreement over what sponsoring individual research would normally cost. "That premium ultimately wasn't warranted," he says, so Grace is now sponsoring some specific biotechnology research projects at MIT.

At the OTA workshop, Martin Yarmush of MIT's department of chemical engineering emphasized the need for stability in funding: "You can't put money in too fast, nor can you take it away too fast. But industry, by nature, is not stable." He also noted that with some 42 state biotechnology centers scattered across the U.S., there is intense competition for a limited amount of industry funding.

"A number of states have developed biotechnology centers but are funding them at too low a level and are not prepared to make the investment for the long term because they expect a payoff in three to five years," criticized Martin Kenney from the department of agricultural economics and rural sociology at Ohio State University (Columbus, OH). While stressing that *some* centers are prepared for the long haul, Kenney pointed to the inherent four-year governmental turnover. "I don't think the commitment of most of these states is going to last longer than four to five years," he said. "And if it is only that long, many of the centers are going to go under."

And there are additional faults with biotechnology centers from the corporate viewpoint—especially the lack of exclusivity. "A company isn't going to sink a lot of money into something that its competitors are going to get too," said Sarah Friel, director of corporate technology administration at Centocor (Malvern, PA). "If you want to keep these centers in operation, making them dependent on industry support is not a good strategy."

OTA sponsored the workshop as part of its "New Developments in Biotechnology" program. Specifically, the discussion will be used as background for a report, *U.S. Investment in Biotechnology*, due to be published in the fall of 1987. Kathi Hanna, OTA analyst and study director for the report, noted that observers previously feared that industry-sponsored research might grossly pervert the academic environment, strangle the publishing of scientific results, and obliterate basic research. Although these concerns still deserve to be monitored, she said, they have not materialized.

But how can collaborative research be made to work better? Friel stresses that Centocor prefers funding specific projects rather than general programs. "If you're going to get industrial sponsorship, you have to be willing to give something in return," she said.

MIT's Smith emphasizes that the interaction of people—rather than the development of tangible products—should be viewed as the major goal of such joint research.

And Kenney suggests that a biotech center pick out a unique niche and fund basic research for a decade or so—at the end of such a period the venture might well end up with something that has commercial potential.

—Arthur Klausner

MIAMI *BIO/TECHNOLOGY* WINTER SYMPOSIUM

BIOTECH SYMPOSIA JOIN FORCES

Beginning in February 1988, *Bio/Technology* and the Miami Winter Symposia will combine their annual scientific conferences and exhibitions. The first Miami *Bio/Technology* Winter Symposium, "Advances in Gene Technology: Protein Engineering and Production," will convene in Miami, FL, the week of February 8–12, 1988.

For 19 years, the Miami Winter Symposium has been one of the principle meetings on advances in molecular genetics. And for the last two years, *Bio/Technology* has sponsored a successful winter conference in New Orleans.

According to its organizers, the joint conference is a long-overdue union of pure and applied research: "The biotechnologies need—and have not had—a meeting ground where researchers in different disciplines can get detailed new information and still find the opportunity to share information across disciplinary boundaries."

In addition to a dozen half-day sessions on topics as diverse as protein-DNA interactions and large-scale protein production, the conference offers an exhibition by more than 50 makers of life-science equipment; free, after-hours workshops (on topics like "Using a computer graphics workstation," and "Yeast as a production vehicle"); poster sessions; and an employment placement service.