ABRAC MEETING

USDA PANEL WORKING TO REFINE ITS MANDATE

WASHINGTON, D.C.—The Agricultural Biotechnology Research Advisory Committee (ABRAC), caught up in friendly internal negotiations over its proper mandate, is still trying to reach a functional, critical mass. At its meeting late in September at U.S. Department of Agriculture (USDA) headquarters, the committee "made really good progress," says chairman Bennie Osburn, a veterinarian from the University of California, Davis. Most of the committee's energy went into discussing two key charter documents that will help define ABRAC's as yet rather abstract scope—guidelines and a manual for conducting field tests.

Currently ABRAC is "wrestling with the broad-based discipline of agriculture—animals, plants, microbiology, [forest management], and ecology," Osburn says. The committee is also struggling to develop a sound working definition of biotechnology—suited to its purposes but also consistent with that used by other federal agencies. Although the precise wording is still not settled, the committee currently defines biotechnology as intergeneric genetic engineering—roughly, producing genetic variations in one organism by introducing foreign DNA or RNA. This definition is broader than the recombinant DNA definition that limits jurisdiction of the National Institutes of Health Recombinant DNA Advisory Committee (NIHRAC), but is narrower than the genetic engineering—novelty boundaries being used by the Environmental Protection Agency (EPA).

ABRAC is modeling itself directly on the role developed by NIHRAC in the early days of recombinant DNA research. Thus, for example, the draft "USDA Guidelines for Research Outside the Laboratory Involving Biotechnology" closely follow the format and principles of the "NIH Guidelines for Research Involving Recombinant DNA Molecules." Levels of confinement, criteria for evaluating protocols, and descriptions of institutional responsibilities and the means for protecting proprietary information are cast in NIHRAC-like guidelines language. In a few cases—for instance, where contract arrangements between researchers and USDA differ significantly from those established between NIH and researchers who receive grants—the ABRAC draft guidelines must be fine-tuned to establish appropriately equivalent safeguards.

The committee envisions that the bulkier companion document, now called the "Handbook for Field Testing," will become a practical, introductory manual for agricultural researchers planning field experiments. Although researchers are reportedly clamoring for personal copies of the draft handbook, it is being criticized within USDA. Assistant Secretary of Agriculture Kenneth Gilles calls it verbose, poorly organized, and an "embarrassment to the department." Staff members in the USDA Office of Agriculture Biotechnology agreed to revamp the handbook before the next ABRAC meeting, which is scheduled for January 5-6, 1989.

ABRAC is also facing other, more fundamental issues. Although the committee is fashioning itself in NIH-

RAC's image, more than a decade has passed since that NIH committee was established. Meanwhile, during the past few years, representatives from other federal agencies have been marching onto the biotechnology regulatory field. Hence, the task of developing valid guidelines is complicated by the need to sort out questions of overlapping jurisdiction with other agencies, particularly the EPA and also the Animal and Plant Health Inspection Service within USDA. With that task still incomplete, researchers seeking to move their agricultural experiments into open fields still may face lingering ambiguities about whose rules or guidelines to heed—no matter how good a job ABRAC may do in writing its charter documents.

—Jeffrey L. Fox

GENOME PROJECT

WATSON TO HEAD GENOME EFFORTS

WASHINGTON, D.C.—James D. Watson, director of Cold Spring Harbor Laboratory (Cold Spring Harbor, NY) and an outspoken proponent of mapping and sequencing the human genome, has been appointed associate director for human genome research at the National Institutes of Health (NIH). Watson will serve in a part-time position within the office of NIH director James Wyngaarden. He will play two roles—a symbolic role to emphasize the importance of the new initiative and also a coordinating role to ensure that related projects in other federal agencies, the private sector, and other countries mesh smoothly with those at NIH. A genome advisory panel will soon be appointed to further guide NIH in these efforts.

The overall program of mapping and sequencing the human genome is expected to take 15 years and cost a total of \$3 billion. Watson, who early this year denied an interest in becoming the "czar" to oversee the human genome program, appears pleased with his new position. And he has some definite ideas about how the program should be run. Some of his recommendations echo those in National Academy of Sciences and Office of Technology Assessment reports published earlier this year.

For example, Watson emphasizes the importance of finding the "best people" through peer review. The program "needs active participation and, in a sense, leadership by the people who will do the experiments," he says. Watson also acknowledges that, along with valuable medical in-

sights, the research will raise ethical questions about how the cumulating store of information about the human genome is to be used. "The public must be protected from misuses" of such genetic information, and an individual's rights to privacy must be respected, he says.

Efforts to make mapping and sequencing more efficient cannot succeed unless "the private sector... has a lot to do with technology development," Watson says. Moreover, "NIH will be cost conscious. We don't want to distort the budget and set back other sciences." Thus, part of his focus will be to coordinate efforts with other federal agencies, such as the Department of Energy and National Science Foundation, and with programs in Europe and Japan. Because human genome information "will be a resource for the whole world," Watson would like other industrial nations to contribute equitably to the enormous undertaking.

Watson also has a personal interest in seeing the project get off to a healthy start. His discovery, along with Francis Crick, of DNA's double helical structure dates back to the early 1950's, and the recombinant DNA era began about 15 years ago. This makes the two pioneers scientific "grandparents, not fathers" of the human genome project, Watson suggests. "At 60 years old, I'm more disease-oriented than when I did the structure of DNA....If the sequence is another 15 years off, I will be 75 but still capable of getting some pleasure from it."

—JLF