AIDS DRUG DEVELOPMENT

Task Force to Speed Drug Pipeline

It's been a tough year for AIDS researchers. Downbeat news, such as studies highlighting the limits of the anti-HIV drug AZT, has dominated. But while scientists struggle to master HIV, at least there has been some progress in mastering the bureaucratic obstacles to research: Ever more attention is being paid to sharing data, reducing red tape, and setting research priorities. And last week, the Clinton Administration took another step in that direction by announcing the formation of a high-level task force to speed development of new AIDS drugs.

The National Task Force on AIDS Drug Development was announced at a press conference at the National Institutes of Health (NIH) on 30 November. "This is not just another government panel appointed to study an issue and write a report that will gather dust," asserts Donna Shalala, the Secretary of Health and Human Services. The task force, an as-yet-unnamed group of 15 representatives from government, industry, academia, and AIDS-affected communities, will "identify and remove any barriers or obstacles to developing effective treatments," according to Shalala.

Shalala's claim was backed up by some big guns at the press conference. She was flanked by assistant secretary of health Philip Lee, who will head the new group, NIH Director Harold Varmus, Food and Drug Administration commissioner David Kessler, White House AIDS policy coordinator Kristine Gebbie, Anthony Fauci, director of the National Institute for Allergy and Infectious Diseases, and representatives from drug companies and the AIDS activist community.

Although few specifics were presented, Kessler, who was instrumental in forming the task force, told *Science* that one of the organization's major missions will be to fill a gap by ensuring that drug companies, the government, scientists, and activists work together in exploring combination therapies for AIDS. "I'm not convinced that kind of overview is happening," says Kessler. He thinks the reason is the parochial interests of individual research organizations. "If I'm company A," he says, "I'm pushing my data."

Fauci says one obstacle the panel might look into is fear among some in industry of collaborating with government. "Some pharmaceutical companies have a knee-jerk reaction to open participation with the federal government," says Fauci. Current regulations on such participation require that companies allow the government a lot of decision-making power, and companies don't like that at all. "We've got to ask the industry to give the government a fair amount of control of their products," Fauci says. "More often than not, their reaction is, 'Who needs you?' We need to put that on the table."

The task force idea builds on a drug company collaboration launched last April by Merck & Co.'s president of research, Edward Scolnick. That group of 15 companies is attempting to streamline the AIDS drug development process by sharing early data and standardizing assays (*Science*, 23 April, p. 482). But this inter-company collaboration is for industry eyes only, and Scolnick sees the new government task force as having a special responsibility to bring research findings to patients in record time. "If there's any kind of breakthrough, this task force will see that everything is done like lightning," says Scolnick.

Although all of this sounds rosy, not everyone was buying the bouquet. Some AIDS activists in the audience were not impressed: ACT UP of Washington, D.C., called the task force a "hoax" and an "empty gesture." The group's members—one of whom confronted Shalala at the press conference—want an all-out search for an AIDS cure styled after the Manhattan Project that led to the atomic bomb. This was a Clinton campaign promise (*Science*, 19 February, p. 1112) that hasn't materialized, and activists charge that the panel is a paltry substitute for that kind of major federal effort.

Other influential AIDS activists, however, including Derek Hodel of the AIDS Action Council and Moises Agosto of the National Minority AIDS Council are backing the panel idea. And Lee insists that the task force is far from window dressing. "If this mechanism doesn't prove a fruitful way to proceed within 2 years, then I'll say, 'Why go on with it?'" says Lee. "I'm not interested in symbolism." The task force is expected to hold its first meeting by March.

–Jon Cohen

AP/WIDE WORLD PHOTOS

A new force. HHS Secretary Donna Shalala and assistant secretary Philip Lee announced a task force to streamline AIDS drug development.

ANTHROPOLOGY

Failing to Cross the Biology-Culture Gap

Anthropologists are trained to bridge the gaps between different cultures. But today many American anthropologists find themselves divided by one of those very gaps—and are having a tough time spanning the chasm. Their discipline has become polarized into two tribes—one oriented toward biology, the other toward culture—who seem unable or unwilling to understand one another.

The breadth of the chasm became clear last month at the American Anthropological Association's (AAA) annual meeting in Washington, D.C., during two symposia intended, in part, to illuminate any common ground between the two sides. If it existed, however, it was hard to spot. Today biological researchers search for evolutionary and physiological bases for social behavior, while cultural investigators are busy deconstructing cultural texts and trends according to postmodern lights. AAA president Annette Weiner of New York University, who arranged the meetings, is concerned that the disciplinary gap will continue to widen, with cultural anthropology becoming an "adjunct" of the highly politicized field of cultural studies, while biological anthropologists find "more supportive homes in other departments or in medical schools."

The biological crew, for their part, did seem eager for a rapprochement. At a symposium on "Biological anthropologists without anthropology," they spoke earnestly of the need to integrate their work with the rest of the field. But there was little evidence that the feeling is mutual. In a symposium on cultural anthropology, science got scarcely a mention—except as another culture to be studied. And not necessarily sympathetically. "A form of cognitive colonialism" is how Mario Biagioli, historian of science at the University of California, Los Angeles, described the biological approach.

That kind of talk among cultural anthropologists has biological anthropologists feeling "a little alienation mixed with a lot of bewilderment," said primate biologist Clifford Jolly of New York University. The alienation, at least, is not new. The field has traditionally viewed biological anthropology as ancillary to its main business: the study of culture. But after successive waves of new theory and practice—sociobiology, behavioral genetics, and the revolution in molecular biology—biological anthropologists have

"bust out of the reservation," says Jolly. There's a growing perception that genetic and cultural evolution interact. It's time, said Jolly at the session, "to forge a new compact—on the basis of evolution perhaps, instead of culture."

William H. Durham of Stanford University suggested that such a vision "might even give us a common language to speak." Durham and his colleagues believe a rich lode of material can be mined through the combined efforts of the two sides. Different patterns of lactose intolerance in different societies, for example, may help explain patterns of cattle ownership and milk consumption, and thus be a significant factor in economic and cultural life as well as a biological reality.

This notion of uniting under the banner of evolution, however, seems like more colonialism to cultural anthropologists like Fred Myers of New York University. "The rapprochement they imagine is a rapprochement on their terms," he asserts. Biological anthropology, he says, "has very little to offer" cultural investigations because the two are operating in such different time horizons. Cultural anthropologists, Myers says, "regard human evolution as finished." And topics like lactose intolerance are basically matters on the biological, not cultural, agenda, he adds.

Does this inhospitable climate mean that the schism the AAA's Weiner fears is about to become a reality? Perhaps not. Biological anthropologists reported at the meeting that they see no signs that their colleagues are rushing to join university biology departments (*Science*, 24 September, p. 1798). Yet fission is taking place in one area: graduate training. "One thing that depresses me is that many departments are divorcing the two areas in the training of graduate students," says Matt Cartmill, a biological anthropologist at Duke University. Anthropology has traditionally emphasized integrative training, but a number of departments have abandoned it—notably Duke, which now has two anthropology departments, and the University of California, Berkeley, where the biological anthropologists in the department are now housed in the biology building.

Cultural researchers believe this change in training is a sign of the times. "The problems that defined the [traditional] approach and the historical circumstances have changed," says Myers. But with both feet planted squarely in one subdiscipline or another, tomorrow's anthropologists may have an even harder time crossing the field's academic Great Rift Valley.

–Constance Holden

SCIENCE EDUCATION

Expert Panel Criticizes Federal Activities

Report after report has documented the failure of U.S. school children to learn enough science and mathematics to join the technologically advanced global work force of the next century. There is also ample evidence that public understanding of science is abysmal. In response, the federal government has created hundreds of programs across dozens of agencies, all aimed at improving the situation.

Although the intentions are good, how are these programs actually doing? Not well, according to a bluntly worded report from a panel of experts that examined federal spending on science education.* Two of the main reasons, the report finds, are that the government's investment in science education doesn't always follow its own high-level recommendations and that not enough time and attention are paid to evaluating the nearly 300 programs that do exist.

Last year the federal government spent $2.2 billion on such programs, with graduate students receiving 42% of the total and K-12 students 35%. (Undergraduate education received 20%, and 3% went to programs promoting public understanding of science.) The panel concluded that this federal contribution is not focused sharply enough on the national goals drawn up at a 1990 education summit with President Bush and the nation's 50 governors. These goals, which include raising student achievement, improving teacher skills, broadening the participation of minorities and women in science, and increasing public understanding of science, were fleshed out by a committee representing a dozen federal agencies.

But that roadmap isn't being followed, says the panel, cochaired by Karl Pister, chancellor of the University of California, Santa Cruz, and Mary Budd Rowe, professor of science education at Stanford University. "The federal portfolio [of science education programs] is unbalanced and lacks coherence," according to their report. The lack of structure "makes it next to impossible to maintain fidelity to the overarching national goals for science, mathematics, engineering, and technology (SMET) education."

"We take its findings seriously, and see it as a way of strengthening [science education] programs."

—Luther Williams

The disparity between rhetoric and reality exists at every educational level, according to the panel. "With regard to the important issue of transition from school to work, we suggest shifting funds from Ph.D. production to mid-degree ventures and technical training to better prepare students for tomorrow's jobs," says Rowe. At the undergraduate level, the panel notes, only 36% of the $428 million spent last year addressed the government's two highest priorities—improving the curriculum and turning faculty members into better teachers. And the panel concluded that "the basic goals of SMET education" for elementary and secondary students—teaching core competencies and motivating students to aspire to careers in science—"have not been well served by traditional programs."

For Bruce Alberts, the new president of the National Academy of Sciences who has made education a priority, the yardstick is simple: What is the quality of science education that children are getting in U.S. public schools? "In most cities," he says, "it's very, very poor."

The panel says the federal government also comes up short in another key area: finding out whether the programs it funds are doing any good. Only one in five programs overall (one in eight undergraduate programs) has been evaluated, and the government spends less than 1% of its science education dollars on evaluation. Rowe says that, as a rule of thumb, a program should spend 10% of its budget on evaluation. The problem is exacerbated by the programs' novelty and diversity: The Department of Energy, for example, has 69 distinct science education programs, 42 less than 5 years old.

Although it might seem like harsh medicine, the report was accepted eagerly by Luther Williams, associate National Science Foundation director for education and human resources and acting chair of the federal interagency panel that requested the report. "We take its findings seriously," he said last week at a press conference, "and see it as a way of strengthening SMET programs." The report is also expected to bolster Williams' effort to persuade other federal agencies to emulate NSF and spend more on evaluation, a step the panel says is essential for improving science education nationwide.

–Jeffrey Mervis

* "The Federal Investment in Science, Mathematics, Engineering, and Technology Education: Where Now? What Next?" For more information, contact NSF at (202) 357-9498.