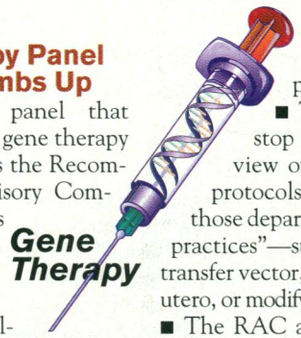
SCIENCESCOPE

edited by JOCELYN KAISER

Gene Therapy Panel Gets a Thumbs Up



An independent panel that passes judgment on gene therapy projects—known as the Recombinant DNA Advisory Committee (RAC)—has received a fresh vote of confidence from the biomedical community. Although some critics were pushing the 20-year-old RAC to retire, it may be destined instead for a modest renovation, if advice from its outside reviewers is followed.

The RAC has been under scrutiny for a year, ever since critics in the biotech industry and some academics claimed that its deliberations have caused delays in clinical research (*Science*, 25 August, p. 1054). In response, Harold Varmus, director of the National Institutes of Health (NIH) and the official whom RAC advises, appointed a group led by oncogene expert Inder Verma of the Salk Institute of La Jolla, California, to investigate. Their full report will be released later, but last week Verma and his colleagues issued these summary recommendations:

■ Because gene therapy has the potential to change the human genome and to create new pathogens, it should continue to receive public scrutiny by the RAC, which has provided an "enormous service" in airing past controversies.

■ The RAC should stop case-by-case review of all gene therapy protocols and focus only on those departing from "familiar practices"—such as using a new transfer vector, treating a child in utero, or modifying germ-line cells.

■ The RAC and its permanent staff at NIH should continue to maintain a public database on the results of gene therapy trials. To make it easier to monitor the field, the government should exempt gene therapy from "proprietary restraints reserved for ordinary therapeutic drug products and biologics."

These suggestions will be discussed at a meeting of the RAC on 7 December.

PTO Seeks Advice on DNA Patents

Bruce Lehman, commissioner of the Patent and Trademark Office (PTO), appears to be curious about some of the big questions involving patents on DNA. The PTO will soon hold two hearings to gather comment on, among other things, some rather philosophical issues: whether patenting "a complete genome of an organism" and "human genome fragments" will "inhibit rather than promote the advancement of the biotechnology arts," according to a 14 November notice in the *Federal Register*.

"I think it's interesting that they're doing this," says Rebecca Eisenberg, a DNA patent expert at the University of Michigan School of Law. "[It] suggests that they see some role for themselves in asking these broader questions." Patents for fragments of human genes have been hotly debated in recent years, with some arguing they will impede information sharing and the discovery of complete genes, Eisenberg notes. The concern about patenting whole genomes may have been prompted by the first complete sequencing of the genome of a free-living organism—the bacterium *Haemophilus influenzae* (*Science*, 28 July, pp. 468, 496, and 538).

Eisenberg adds, though, that "it's not clear what [the PTO] is in a position to do," as courts have already ruled that genetic material is patentable. But the PTO has ways to discourage certain patents, for example, by making the applications more cumbersome. PTO spokesperson Richard Maulsby says simply, "This commissioner is very keen on listening to customers and getting feedback." The hearings will be held in the San Diego area 29 November and in Arlington, Virginia, on 7 December. For more information, contact Esther Kepplinger at (703) 308-2714.

Panel to Examine Radiation Foundation

The future of the troubled U.S.–Japanese Radiation Effects Research Foundation (RERF) may now rest in the hands of a high-level expert panel. Officials from the U.S. Department of Energy (DOE) and the Japanese Ministry of Health and Welfare announced this week the formation of a committee to look at RERF, organized after the Second World War to monitor the health of the 120,000 people who survived the bombings of Hiroshima and Nagasaki.

RERF, funded equally by the U.S. and Japanese governments, ran into trouble last year when the United States proposed cutting its $18 million contribution because the yen's strength against the dollar had made costs unbearable. And last January, DOE declared that after 49 years it wanted a new manager for its side of the foundation: The National Academy of Sciences (NAS) was to be replaced by Columbia University (*Science*, 3 February, p. 611).

After wrangling with NAS and hearing complaints from scientists, in June DOE put off a decision on RERF's management for 2 years and declared it would set up an international panel to look at the foundation's science and plan future research. Steve Galson, DOE's Chief Medical Officer for Environmental Safety and Health, says the panel will provide "the big picture" for the agency, and that its conclusions will certainly affect the foundation's future. "It will be additional data for our decision-making process," he says.

The 9-member panel will be chaired by Roger Clarke, director of Britain's National Radiological Protection Board and chair of the International Commission on Radiological Protection. RERF holds "the single most important body of data on radiation effects. I look forward to examining it," says panel member Jack Geiger of the City University of New York Medical School.

Bountiful Harvest at NASA: Shuttle Gets a Boost

Thanksgiving came early for the National Aeronautics and Space Administration (NASA): The Mission to Planet Earth emerged as a winner in a conference between the House and Senate last week on the bill that funds NASA, the National Science Foundation (NSF), and the Environmental Protection Agency (EPA). Although House leaders wanted to give the environmental monitoring system $225 million less, they agreed to just $75 million less than the Administration's request of $1.3 billion.

The space shuttle program also proved a winner, although at the expense of research. To assuage fears about shuttle safety, lawmakers agreed to shift a Senate plan for $33 million in space science funding to the shuttle. But the bill also provides money for airborne and orbiting infrared observatories and sets aside $51 million for Gravity Probe-B, a mission to test relativity theory. NASA's total budget came out to $13.8 billion, more than either chamber had proposed, although below 1995's $14 billion.

The conferees also split a $40 million difference on funding NSF's research account, settling on $2.274 billion—a scant $29 million above 1995 levels. NSF's other programs, including education and infrastructure, received the requested level, making NSF's overall 1996 budget $3.18 billion, down 1.5% from 1995. The EPA's Office of Research and Development got the full $500 million allotted by the Senate in a new account that includes personnel funds, plus $25 million for new Superfund work.

These numbers could change, however. Once both houses approve the bill, it goes to President Clinton, who may veto it because the bill contains few funds for his National Service program. Congressional aides plan to fix that problem. Agency officials are hoping the repairs aren't made at their expense.