Nobel prize for Japanese immunologist

London

A MIXTURE of surprise and delight greeted this week's award of the 1987 Nobel Prize in Physiology or Medicine to Susumu Tonegawa. The delight will be particularly marked in Japan, as Tonegawa, a Japanese national even though he has not worked there since graduating in 1963, is Japan's first Physiology-or-Medicine laureate. The surprise is that the Nobel assembly chose Tonegawa alone, whereas three weeks ago, for example, a Lasker prize for the same topic was shared by Tonegawa, Philip Leder and Lee Hood.

Tonegawa is cited for his discovery of "the genetic principle for generation of antibody diversity" — the problem of how the system can produce millions of different antibodies from, at the most, thousands of genes. In 1976, Tonegawa, with N. Hozumi (*Proc. natn. Acad. Sci. U.S.A.* 73, 3628; 1976) provided the first molecular genetic evidence in support of the favoured hypothesis of the time.

First suggested in 1965 by W.J. Dreyer and J.C. Bennett, the idea was that separate genes encode that part of an immunoglobulin (antibody) chain which is relatively constant in structure between antibodies and that part which is very variable, and that the genes are joined during lymphocyte maturation. The combinatorial possibilities of joining the variable and constant region genes would enable much diversity to be generated from relatively few genes.

"During the following two years", says the Nobel citation, "Tonegawa completely dominated this area of research." Others were quick to contribute, although sometimes not as quick as they might have been had not they been more constrained than Tonegawa by the then current problems of carrying out recombinant DNA work. Certainly by 1978 Philip Leder, Lee Hood and several others were contributing substantially to the understanding of the several mechanisms by which a diversity of antibodies is produced but few opportunities to be among those answering the most obvious questions escaped Tonegawa.

In 1981, Tonegawa moved to Massachusetts Institute of Technology, where he has concentrated on the molecular genetics of the T-cell receptor. After speaking on this subject at a *Nature* conference in 1986, he was pestered by the Japanese press as to why Japanese biologists do not win Nobel prizes, for which he blamed the Japanese system, and whether he would break the mould. They have their answer.

Peter Newmark

President's new AIDS commission in turmoil

- Three principal members resign
- Split over 'ideological differences'

Washington

THE credibility of the US presidential commission on AIDS (acquired immune deficiency syndrome) is in serious doubt in the wake of the sudden resignation last week of its chairman, vice-chairman and sole medical staff officer.

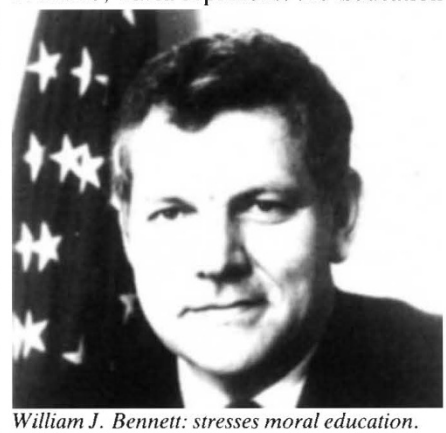
The resignations follow weeks of rumours that ideological differences between committee members were preventing progress towards the formulation of a national policy on AIDS. A first report is due in November and final recommendations next June.

The commission was in trouble from the moment it was set up just three months ago (see *Nature* **328,** 373; 1987). Although it was given a comprehensive brief to make recommendations to President Ronald Reagan on medical, legal and social aspects of AIDS, critics claimed that its 13 members had been appointed more for their conservative views than for any expertise on medical issues. The commission proved unable to fill more than three of its 15 staff positions and its first executive director was asked to leave soon after appointment.

The chairman of the commission, W. Eugene Mayberry, chief executive officer of the Mayo Clinic, is unwilling to give a public explanation for his resignation. But the vice-chairman, Woodrow A. Myers, health commissioner of Indiana, who resigned shortly afterwards, has been more forthcoming, describing strong differences in ideological perspective and personality that prevented the commission from working efficiently. The commission's senior adviser on medical and research affairs, Franklin Cockerill of the Mayo Clinic, also resigned.

Attention is now focused on Dr Frank Lilly of the Albert Einstein Medical Center, who has been in the public eye not so much because he is the commission's only scientist but because he is its only homosexual. His appointment has been seen as President Reagan's one concession towards recognition of the difficulties of the group that has suffered most in the AIDS epidemic. After the resignations were announced, Lilly said that he was also considering resigning but would wait to see who the White House would appoint to replace departing members. The new chairman, already announced as retired Admiral James D. Watkins, a member of the commission, has attempted to persuade Lilly to stay on.

No early end is expected to the dissensions within the commission, chiefly because they reflect deep divisions within the administration and among the general public over what should be done to prevent the spread of AIDS. This week it was the turn of the Education Secretary, William J. Bennett, to join the fray with a new handbook, *AIDS and the Education of our Children — a Guide for Parents and Teachers*, which represents the Education Department's first official recommendations to US schools.



William J. Bennett: stresses moral education.

The handbook, which comes with the approval of the White House, toes the now familiar conservative line that, as Bennett puts it, "when it comes to AIDS, science and morality walk the same path, they teach the same thing".

While the values espoused by Bennett have not been criticized in themselves, doubts have been raised about the effectiveness of moral education as the first line of defence against AIDS. Bennett's handbook itself repeats statistics showing that, by the age of 19, three-quarters of all boys and almost two-thirds of all girls in the United States have been sexually active. More than half of all final-year high-school students have had experience with illegal drugs.

Given these figures, it is not surprising that Surgeon-General C. Everett Koop has taken a different approach. While he also accepts that monogamy will prevent the spread of AIDS, he has strongly recommended the use of condoms to the many young people who do engage in premarital sex. Bennett's handbook, in contrast, points out there is a danger that "promoting the use of condoms can suggest to teenagers that adults expect them to engage in sexual intercourse".

Alun Anderson