Testing for HIV in Urine

Screening for the AIDS virus HIV could get a whole lot easier if a new generation of test kits now under development proves as accurate as initial results indicate. The main advantage of the new tests is that they detect the presence of HIV antibodies in urine rather than blood, eliminating the need for trained medical personnel to collect the samples.

Several companies, including Abbott Laboratories, DuPont, Wellcome Diagnostics, and Calypte Biomedical, have developed screening tests, but none has yet received approval from the Food and Drug Administration for clinical use. According to data presented at the Sixth International Conference on AIDS last month in San Francisco, the Calypte test had 7 false positives from 931 urine samples taken from a low-risk population, and no false negatives. The Abbott test did not do quite as well, finding 4 false positives out of 236 negative samples, and 26 false negatives from 330 positive samples. The Wellcome test was somewhat less reliable, with 37 false negatives out of 452 positives and 14 false positives from 325 negatives.

Howard Urnovitz, president of Calypte Biomedical, says a urine test will be a great advantage in developing countries with scarce medical facilities. He also says that, if perfected, it could be incorporated into a home test kit. The FDA is currently considering at least one application for a home HIV test kit that requires a blood sample.

End of Monkey Saga?

On 3 July, an appeals court in Washington, D.C., turned down a last-ditch attempt by animal activists to forestall final scientific experiments—which are to be followed by euthanasia—on three of the remaining six "Silver Spring monkeys." The condition of the elderly primates, whose arms were denervated for experiments a decade ago, has deteriorated badly and veterinarians say they should be euthanized.

Timothy Pons, a researcher from the National Institute of Mental Health, promptly flew down on 5 July to the Delta Regional Primate Center in Louisiana, where the monkeys have been residing. He began the final experiments the following day after receiving an early morning go-ahead from William Raub, acting director of the National Institutes of Health. Pons has already found that brain wave tests on one monkey, performed before he was euthanized early this year, showed "a far greater degree of cortical reorganization [following the nerve damage] than had been anticipated." Pons monitored the three monkeys' brain activity in response to tactile stimuli while they were anesthetized and euthanized them before they regained consciousness.

The custody of the monkeys has been the cause of ongoing battles between animal activists and health authorities since 1981 when police seized the animals from the Silver Spring, Maryland, laboratory of researcher Edward Taub. The plaintiffs in the latest court case, spearheaded by the Physicians Committee for Responsible Medicine, have backed off attempts to block euthanasia of the animals, instead alleging that the research protocol is defective.

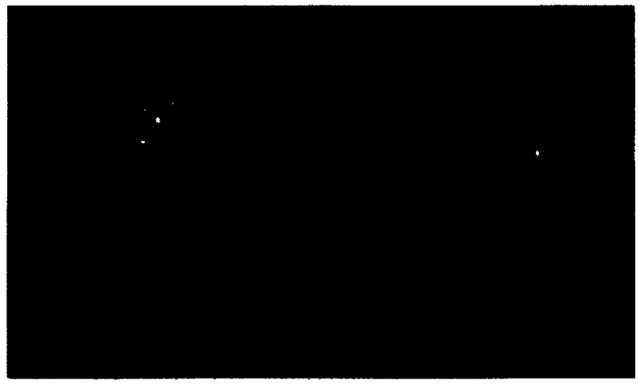
The latest decision "really should be the end of it," Pons told *Science*. But that remains to be seen. Lawyers for the physicians committee, from the Washington, D.C., firm of Colton and Boykin, say that although they failed to win a temporary restraining order on the current experiments, they will continue to try to block testing on the remaining monkeys.

And congressmen who have taken up the activists' cause have requested a meeting with Raub on the fate of the final three monkeys.

Correction

The graph showing the number of National Science Foundation awards going to new investigators (*Science*, 18 May, p. 810) was inaccurate. The following table provides the correct numbers, as supplied by NSF. Total awards includes all active awards, single and multi-year, to individual investigators. New investigators are defined as any awardees who had not received an NSF award in the previous 5 years.

	1984	1985	1986	1987	1988	1989
Total awards	11,834	12,949	12,410	13,056	13,342	14,304
New P.I.'s	3,031	3,568	3,259	3,746	3,858	4,327



New prenatal test. *A new DNA probe should make it possible to perform more rapid prenatal diagnoses of Down syndrome and other disorders caused by chromosomal abnormalities. The test can be done in 24 hours, eliminating the 2 weeks needed to grow cells in culture. Fetal cells are obtained by amniocentesis and the probe, which binds only to certain chromosomes, is added. A fluorescent dye is used to mark the chromosomes. The cell shown in the photograph (large red spot) shows an extra chromosome, suggesting the presence of Down syndrome. To the right are chromosomes from a di-viding cell. According to Oncor, Inc., of Gaithersburg, Maryland, which developed the test, it should not only facilitate the expansion of prenatal genetic testing, but will aid research in cell genetics and cancer.*

Modest Proposal for Budget Woes

If the right-leaning Heritage Foundation ran the country, scientists dismayed by the shortage of federal funding would find a lot more to wail about. In a recent working paper,* Heritage economist Scott Hodge lays out his plan to eliminate the federal budget deficit without new taxes. He says the country could save $8.3 billion with the following cuts:

- Kill the Superconducting Supercollider (for savings of $218 million in fiscal 1991).
- Delay the space station for 2 years and planning for a manned Mars mission indefinitely ($1.85 billion).
- Eliminate funding for energy conservation programs and research into energy technologies ranging from solar power to magnetic fusion ($2.3 billion).
- Sell federal uranium enrichment facilities to the private sector ($1.8 billion).
- Immediately lease the entire Arctic National Wildlife Refuge for oil exploration ($1 billion).
- Slash NIH funding by 30% ($1.14 billion) and require grant recipients to find matching support for NIH dollars.

Left untouched by the Hodge plan would be the B-2 bomber and the Strategic Defense Initiative ($10.16 billion).

**A $130-Billion No-Tax Prescription for the Budget Deficit* (Heritage Foundation, 31 May 1990).