

tosis, decreased platelet count and elevated serum creatinine levels. Virus is found in organs such as spleen, lung, liver and kidney.

Jahrling says the observation that certain strains of variola can produce a deadly disease in monkeys is a breakthrough because until now it was assumed that the host range of variola was restricted to humans.

Sommer is unimpressed. "Obviously I can't speak for everyone in public health, but I feel that infecting monkeys is a dangerous game: not only does the virus still exist, but you are killing our close kin, and scaring countries that were counting on this being locked safely in a freezer at worst, and even better, destroyed. The US should provide moral leadership to rid the world of the virus, rather than trying to perfect an animal model—no one will believe the testing is not for offensive purposes." In a continuation of federal funding, the Center for Civilian Biodefense Strategies at Sommer's School of Public Health received a \$1 million grant this year to continue its work of "fostering policies and programs dedicated to bioterrorism preparedness and prevention."

Jahrling's research is a collaborative Department of Defense and Department of Human Health Services effort, and he sums up the present US political sentiment in the final sentence of an abstract of his work: "Effective mitigation of an adversary's most potent biological weapon (smallpox) must be a national priority."

During a visit to the University of Pittsburgh Medical Center last month, where he viewed an anthrax spore under a microscope, President Bush called research laboratories the first line of defense against bioterrorism. However, Sommer likens the smallpox work to the Maginot Line. "You simply can't build fully protective walls in the traditional sense."

Sommer argues that the existing smallpox vaccine is adequate. "It will be a very long time before we have a safer and more effective vaccine, or a truly useful drug. Look how long we have been at work on HIV, and still no vaccine...and we've spent far more resources on this than we will ever spend in BL-4 facilities for smallpox." But if Bush's budget commitment to expenditure on bioterrorism research is a sign of Congressional things to come, Sommer may be proved wrong on this point at least.

Karen Birmingham, London

New investigations into Gulf War syndrome

Veterans of the Gulf War also appear to be benefiting from the Bush Administration's 'war on terrorism' stance, given that new investigations into Gulf War syndrome have been announced. Ten years after the fact, the government has launched an initiative to sift through findings of nearly 200 studies pertaining to the proposed condition—a disorder thought to afflict 1 in 7 of the veterans.

The 12-member advisory panel is the first to comprise only research scientists and veterans. Various groups, such as the Office of the Special Assistant for Gulf War Illnesses, have been formed previously to assess Gulf War syndrome, "but they have included mainly retired generals and admirals, not scientists," according to panel member Robert Haley, chief epidemiologist at the University of Texas Southwestern Medical Center. "This is the biggest thing that has happened to the recognition of Gulf War syndrome in the last 10 years," he says.

The existence of a real syndrome has always been a matter of debate. John Feussner, Chief R&D Officer for the Veterans Health Administration says, "The absence of a definable syndrome does not negate the very real symptoms of ill health suffered by many veterans of the Gulf War, nor does it reduce VA's [Veteran's Administration] commitment to find the

cause or causes of their illnesses."

Although government money has been spent investigating the condition, Hayley says it's notable that there have been no 'requests for proposals' issued by the National Institutes of Health as there have been to investigate other diseases. The (VA) is an office of the US government that changes with each new administration. Although previous VA studies have failed to confirm health problems of veterans, new work supports physiological changes that may underlie the condition.

Speaking at a December 2001 press conference, VA Secretary Anthony Principi noted that preliminary evidence suggests that Gulf War veterans are nearly twice as likely to develop amyotrophic lateral sclerosis as veterans who were not deployed. Another new study conducted by VA researchers of 30,000 veterans reports a 2.8-fold increase in birth defects in the offspring of Gulf War veterans (*Ann. Epidemiol.* 11, 504; 2001).

According to Haley, symptoms are traceable to damage of the basal ganglia and brain stem and possibly the thalamus. Two agents may have contributed to these changes, nerve gas arising from destruction of Iraqi weapons storage facilities and organophosphate insecticides used to reduce the risk of insect-borne diseases, he says.

Emma Hitt, Atlanta

WHO still struggling to change

A review of the administration of the World Health Organisation (WHO) concludes that changes in its management structure "may have been carried out too hastily and these have not "changed administrative processes radically but simply displaced them," and that it is "characterized by an ageing staff in a top-heavy structure."

The report is a harsh condemnation for the group under Director-General Gro Harlem Brundtland, whom, it was hoped, would minimize bureaucracy and transform the WHO to an organisation more befitting its name—one at the forefront of world health issues.

To some the assessment by the Joint Inspection Unit (<http://www.unsystem.org/jiu/>) is no surprise. One public health expert close to the organisation summed up the sentiments of many: "The overwhelming sense is that Dr Brundtland, coming from a political background, has imposed another administrative layer akin to running a country on top of all the existing bureaucracy that was there to begin with." He says that morale within WHO is low largely because of the great expectation that people had with Brundtland's appointment.

There is a broad feeling that WHO continues to fail in areas where its guidance is most needed, such as HIV/AIDS. For example, Kofi Annan Secretary-General of the United Nations has spearheaded the Global Fund to fight AIDS, Tuberculosis and Malaria, an action that many believe should have been driven by the WHO.

But WHO's supporters insist that despite negative reports Brundtland has now turned a corner for the WHO. They point to the panel of experts recently convened to develop international treatment guidelines for HIV for developing countries and the new initiative to provide such countries with free access to medicines and scientific literature.

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