

Human SIV Infections Suspected

Can simian immunodeficiency virus (SIV), a relative of the human AIDS virus once thought to infect only monkeys, also infect humans? The disturbing answer may be yes, according to the Centers for Disease Control (CDC) in Atlanta. CDC researchers have now identified two cases of laboratory workers who developed antibodies to SIV—a sign that they might have become infected—after exposure to the virus. Although the CDC scientists have not been able to detect SIV itself in either individual, and neither has become sick, officials at CDC and the National Institutes of Health (NIH) will shortly launch a retrospective survey, using stored blood samples, to look for other cases of SIV infection.

The first case came to CDC's attention in 1990, after a laboratory worker suffered a needle-stick injury while handling an SIV-infected monkey. According to Brian W. J. Mahy, director of CDC's division of viral and rickettsial diseases, the worker developed antibodies approximately 3 months after the injury. In the 2 years the worker's blood has

been monitored, the level of antibody has fallen off, indicating that the infection may have been cleared from the body. Rima Khabazz of CDC's retrovirus disease branch says she and her colleagues have not been able to recover any virus from the exposed individual, or to detect viral sequences using the polymerase chain reaction, reinforcing the implication that the worker's immune system has prevented a chronic infection. (A complete description of this case appears in today's issue of *The Lancet*.)

The other case, involving an employee in a different lab who handled SIV-infected blood products without gloves while suffering from active dermatitis, is more problematic. It was discovered only a few months ago, but checks of stored blood samples by CDC scientists showed that this person had also become infected in 1990. In this second case, however, antibody levels have continued to rise, suggesting that the person hasn't been able to fight off the infection, although no virus has been recovered here either. It

was the discovery of this second case—a seemingly more casual exposure to SIV that may have still resulted in infection—that prompted CDC and NIH to expand their search for SIV infections in humans.

The fact that SIV may infect humans comes as no surprise to many who have been working with the virus. In fact, they've been expecting it. The reason, according to veterinarian William Morton of the University of Washington's Regional Primate Center in Seattle is that SIV is a close molecular cousin of HIV-2, which in turn is closely related to HIV-1, the virus that causes AIDS. Ronald Desrosiers, a virologist at the New England Regional Primate Center, says it has been his laboratory's policy to treat SIV as if it were as potentially infectious as HIV. Indeed, Khabazz says CDC also recommends extreme caution in dealing with SIV, and, she says, both exposed workers apparently failed to follow CDC guidelines.

NIH is currently implementing a testing service for workers at risk for exposure to SIV "to verify the expectation that SIV seropositivity is an uncommon event in humans," according to a memo dated 21 July from NIH Director Bernadine Healy.

—Joseph Palca

GERMANY

Astrophysics Institute at Risk

The Max Planck Society, Germany's independent, government-funded research complex, has confirmed an alarm mailed out this summer by staff scientists: The society's astronomy programs could be cut back in October. At risk is one of the society's 56 specialized institutes, the Max Planck Institute for Astrophysics in Garching (MPA). One of six astronomy centers, the MPA is the only center devoted entirely to theory.

"It would be an enormous shame if it were to close," says A.G.W. Cameron, associate director for theoretical astrophysics at the Harvard-Smithsonian Center for Astrophysics, adding that the MPA was a "mecca" for theorists who wanted to do computational work in the days before the U.S. supercomputer centers were up to speed. This bit of history is "indicative of the kind of leadership" the MPA exerted in the past. "It is a unique pearl in the German scientific world," Cameron says, arguing that it makes sense to concentrate theorists in centers where they can get access to powerful computers, rather than disperse them in observational centers.

But dispersion is what the Max Planck Society has in mind. One reason for this, according to Horst Meermann, a society spokesperson, is budgetary. Like the entire German research program, the society is having trouble paying its bills and has zeroed in on high-cost satellites and telescopes as an area for budget trimming. That's in keeping

with national policy, Meermann notes, pointing out that Germany's chief science official, Heinz Riesenhuber, has suggested it may be time to trim the country's budget for astronomy.

Another reason is MPA's fruitless search for a new director to take the place of Rudolf Kippenhahn, who retired in 1991. Over the past 3 years, more than one candidate has been rejected as unsuitable by the professors on MPA's staff. And the most recent candidate, according to MPA scientist Peter Schneider, turned down an offer from the institute "and stayed in his home country." Because the Max Planck Society has a long tradition of demanding that programs justify their continued existence—particularly when leaders retire—the confusion over who might lead MPA has intensified the budgetary challenge.

The upshot is that the society has instructed the MPA to stop searching for candidates and has empaneled two groups to consider what should be done with the astronomy program as a whole. One, called the "presidential commission," is preparing a report for the society's president on how the astronomy effort can be made less expensive and how programs might be restructured. The second, called the "future commission," will report in October on whether or not to close the astrophysics institute and move its 30 scientists to other centers.

Meanwhile, MPA scientists have been

lobbying. Schneider, an expert on gravitational lensing, sent a note to many scientists around the world last month informing them that he had been designated by his colleagues to publicize what was going on behind closed doors at the society. He objected that the budget argument against MPA didn't hold water. All forms of astronomy account for about 11.5% of the Max Planck Society budget, Schneider noted, and MPA requires only 6.1% of that fraction—or 0.7% of the society's total. MPA, moreover, has no large, expensive instruments. "Our budget is so small that closing it would provide almost no savings," Schneider told *Science*. "They would have to close six or eight institutes," including MPA, to make up the society's deficit this year of around 55 million Deutschmarks.

The appeal has already prompted articles in German newspapers and in the science press, and Schneider reports that letters of concern have been coming in from around the world. For example, Robert Kraft, emeritus professor at the University of California, Santa Cruz, wrote to the president of the Max Planck Society warning that to close MPA would be a "serious blow not only against basic research in astronomy but against astrophysics in general...." But while such appeals undoubtedly will have an impact on the society's deliberations, they will not increase the budget, nor are they likely to make it any easier to find a new director for the MPA.

—Eliot Marshall