That these variations have implications for the development of illness is shown by a number of other studies reported. Variations in the outer envelope of the virus significantly affect which cells, if any, a given virus will grow in. This was shown by studies in which viruses were constructed that were identical except for their outer envelopes. These viruses showed significant differences in the types of cells in which they would grow.

Another study examined two genetically distinct HIV-1s from the same AIDS patient. One form of the virus grew in monocytes, a white blood cell which circulates throughout the body, but not in brain cells. Another form grew in brain cells—known as glial cells—but not in monocytes. This confirms earlier reports that some forms of HIV appear to destroy the nervous system, whereas others destroy the T-cells of the immune system.

As illness develops, the viruses isolated from the patient become more effective at killing cultured cells. In other words, with the passage of time, the virus becomes more virulent. Since HIV establishes a lifetime infection, which the body appears unable to control, the virus has plenty of time to mutate to a more lethal form.

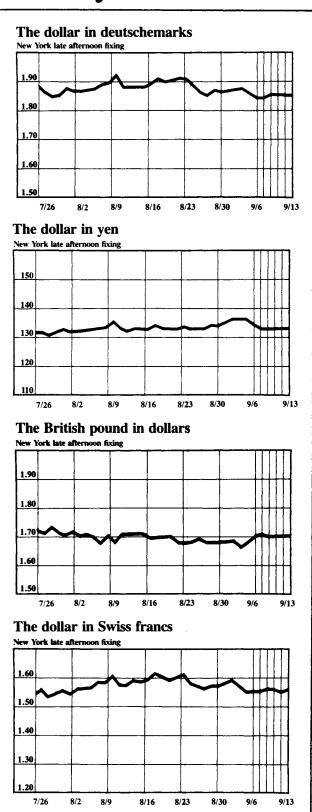
Moreover, disease may be produced by viruses which are incapable of growing outside the body. These forms, known as replication defective variants, are more virulent than forms capable of growing on their own. This phenomenon, too, has been well known for many years in other retroviruses, especially those responsible for causing immune system tumors in various animals. In this case, the virus you grow out of the patient may not even be the one causing his or her disease.

To top this off, it is now evident that a person can be infected by HIV for up to three and a half years before developing antibodies to the virus. Indeed, a number of children have developed AIDS without antibodies to HIV being present in their blood. In these patients, the presence of virus can be detected by a test known as the "polymerase chain reaction," or PCR, which is capable of detecting the gene product of the virus genetic material in the genetic material of an infected cell. This test is sensitive enough to detect 1 infected cell in 1 million.

The irony of all this is that, while the various AIDS viruses may have actually arisen as a side effect of molecular biological research, it is more and more evident that molecular biology is inadequate to deal with them, other than in the development of increasingly sophisticated tests for the presence of infection. Since the present policy is to reject the use of mass testing, even this progress is meaningless.

In a way, the various AIDS viruses could almost be viewed as the toxic waste of molecular biology. If so, then, just as with all previous forms of toxic waste, the solution lies not in abandoning technology, but in advancing to a higher technology which is capable of dealing with the problem. Instead, the present approach is to reject the capabilities we do have and invest in research which, by its own premises, is incapable of finding a prevention and cure for HIV infection.

Currency Rates



EIR September 23, 1988