

Medicine by John Grauerholz, M.D.

Can coughing transmit AIDS?

Some scientists say there's just too much evidence to ignore the possibility of respiratory transmission of HIV.

The possibility of respiratory transmission of the AIDS virus, HIV, was debated by two Nobel Prize winning virologists at a seminar on virus diseases held this past May in Washington, D.C. In the course of the seminar, Dr. Joshua Lederberg, president of Rockefeller University in New York City, got into a debate with Dr. Howard Temin, of the McArdle Cancer Institute of the University of Wisconsin, on the potential for the AIDS virus to mutate to a form which could be spread by respiratory aerosols, like the common cold.

Expressing concerns about HIV that had been raised in *EIR* over four years ago, Lederberg cited the fact that HIV was now known to infect a group of white blood cells, known as monocyte-macrophages, which are particularly abundant in the lungs, and opined that even a relatively minor mutation would enable the virus to directly infect the lungs, especially since the virus is already known to produce a primary infection of the lungs, known as chronic lymphocytic interstitial pneumonitis (CLIP).

Temin's response was that if the virus did mutate to a form that could be transmitted by coughing and sneezing, it would be more communicable, but would probably no longer cause AIDS and would simply become another cold virus. When Lederberg expressed skepticism, Temin conceded that "anything is possible," but that he "wouldn't lose any sleep over it." Lederberg's rejoinder was, "I'm glad I worry for both of us, Howard."

It is important to understand that

a mutation is not necessary for HIV to be able to infect the lungs. All that is necessary is that the virus is delivered to the lungs. This requires that it be present in aerosolized droplets that are small enough to be inhaled into the lungs, just like tuberculosis. The monocyte-macrophages are present in all body tissues, including the very superficial skin. For respiratory transmission to be efficient, as opposed to simply being possible, requires a patient or patients with active HIV lung disease who are coughing up infected secretions in an environment where other persons can inhale the aerosolized secretions, just as with tuberculosis.

Since the virus has been demonstrated to infect superficial skin macrophages, known as Langerhans cells, the problem is that it doesn't even have to get to the lungs to infect a susceptible cell. So it is indeed possible for it to spread like the common cold which infects the upper respiratory passages, rather than the lungs.

All of this has been known for the last three or four years. In fact, *EIR* published a scientific article written by Dr. John Seale of Great Britain in 1985 which documented the possibility of respiratory transmission of HIV, based on a study by the Pasteur Institute in France which documented that the virus was present in the lung secretions of a patient with chronic lymphocytic interstitial pneumonitis.

What is perhaps more interesting than the question of respiratory transmission of AIDS, is the fact that the debate itself took place and was re-

ported on. The first coverage of the conference, published in May in the *New York Times*, only mentioned the debate between Temin and Lederberg in passing, and gave no details of the actual content of the discussion. In contrast, an Oct. 8 article in the *Washington Post* went into the respiratory transmission issue in much more detail.

It is interesting to speculate on why this issue was publicized at this time, especially as a number of other issues in the epidemiology of mass epidemics, which had been raised by Lyndon LaRouche and his associates, were also raised in the *Washington Post* article, and, to a lesser extent, in the earlier *New York Times* article.

The *Post* piece, adapted from a longer article in *Science News*, was entitled *Viruses: The Next Plague?* and dealt with the more general question of the emergence of new viruses which might threaten the human race. Precisely this possibility was raised by Lyndon H. LaRouche and a Fusion Energy Foundation task force in a 1974 study on the biological effects of the same policies which created the present economic and financial collapse now under way throughout the world. Using the LaRouche-Riemann economic model as a starting point, a model was developed, predicting nonlinear bursts in the spread of AIDS unless economic policies are reversed.

It is probably more than just coincidence that LaRouche's analysis of the biological holocaust, albeit phrased in appropriate establishment terms, is appearing in the media at the same time as recognition of the truth of LaRouche's economic analysis. While the physical economic breakdown is more readily apparent, and hence acknowledged, the fact that the biological issues are also surfacing indicates that we are being prepared for another dose of unpleasant reality.