

Medicine by John Grauerholz, M.D.

Does HIV cause AIDS?

Biologist Peter Duesberg's claims, though probably wrong, expose the lack of rigor in establishment approaches to the transmission issue.

The question, "Does HIV cause AIDS?" was the topic of a four-page article in the News & Comment section of the March 25, 1988 issue of *Science* magazine, dealing with biologist Peter Duesberg, who has gained widespread attention for his claim that "AIDS is not caused by any microbe known to man, especially not the human immunodeficiency virus called HIV."

This contention, first widely publicized in the respected peer-reviewed journal *Cancer Research* in 1987, has caused a certain degree of consternation among the leading lights of AIDS research, such as Robert Gallo and Anthony Fauci. While there has been a good deal of name-calling from these, and other establishment scientists, as well as some serious questions about Duesberg's conclusions, he has never received a formal response to his article.

One of the most enraging things to the AIDS research establishment is that Duesberg is a member of the club. A member of the National Academy of Sciences, the 51-year-old professor did pioneering work in the field of viruses and cancer-causing genes in the 1970s.

The standard response is to dismiss Duesberg with the statement that "although Duesberg is a brilliant chemist, he is out of his depth when it comes to biology and the complex interplay of the human immune system, which is still very much of a black box." Finally, they contend that Duesberg is "asking for absolute proof in a field where an enormous amount of

circumstantial evidence is often enough to convict a microbe of being responsible for a specific disease."

Duesberg bases his contention that HIV is not virulent enough to cause AIDS on the large, and widely acknowledged gaps in our knowledge of how the virus operates within the body.

That such gaps exist is acknowledged by "mainstream" scientists such as Malcolm Martin, chief of the laboratory of molecular biology at the National Institute of Allergy and Infectious Disease, quoted in the article: "We don't know how the virus is transmitted. Is it free virus particles, or do you have to exchange cells? We don't know the initial targets. Are they lymphocytes or macrophages? We don't know where the virus is in the initial stage of infection or during the long period when a person is antibody-positive but still asymptomatic. These are all important issues, but just because we don't know all the answers doesn't mean that we can't extrapolate from pretty good data that keeps pointing toward HIV."

Duesberg actually presents two problems to the so-called "AIDS establishment." One is that he demonstrates the inadequacy of molecular biology, per se, to explain how HIV actually causes disease in a living host. This is not the first time he has skewered a molecular biological sacred cow. In a series of earlier writings, he launched a devastating critique of a number of overblown claims for the role of cancer genes in the production of actual cancers.

It is ironic that, while he is probably mistaken in his view that HIV is not a factor in the development of AIDS, his obvious qualifications enabled him to publish this contention in a peer-reviewed journal, the ultimate standard of truth in today's scientific community.

The second problem is that Duesberg's hypothesis has forced his opponents to defend their positions and admit the substantial shortcomings in their knowledge. Analysis of their arguments against Duesberg calls into question their categorical assertions about how HIV is, and is not, transmitted. This is because a great deal of the evidence is epidemiological and subject to varying interpretation.

The best epidemiological evidence for association of HIV infection with subsequent development of AIDS is based on studies of transfusion recipients. This is because it is possible to document the precise time, and route, of infection and correlate that with subsequent development of disease, both in the donor and the recipient.

When it comes to heterosexual transmission, the situation is cloudier. How does one distinguish between transmission by semen as opposed to saliva, especially since more virus is present in saliva? The fact that HIV infection is prevalent in prostitutes is interesting, but tuberculosis was and is also prevalent in this group.

Since the virus has been shown to cause primary lung disease and to be present in pulmonary secretions, one must be at least dubious of assertions of people who insist that it cannot be transmitted by aerosol.

What Duesberg has done is to apply the same rigor against the pathogenicity of HIV that its proponents have applied against so-called "casual transmission." Both are wrong.