

HIV and AIDS:

Questions of Scientific and Journalistic Responsibility

by Professor Serge Lang^{*)}

For a decade, there has been increasing concern about "AIDS", and a virus called "HIV" which is said to cause "AIDS". Having named this virus "HIV" - Human Immunodeficiency Virus - contributes to making people accept that "HIV is the cause of AIDS". However, to an extent which undermines classical standards of science, some purported scientific results concerning "HIV" and "AIDS" have been handled by press releases, by disinformation, by low quality studies, and by some suppression of information, manipulating the media and people at large. I am not here concerned with intent, but with scientific standards, especially the ability to tell the difference between a fact, an opinion, a hypothesis, and a hole in the ground. As we shall see shortly, there does not even exist a single proper definition of "AIDS" on which discourse can reliably be based. One difficulty, of which most people are not aware, lies in faulty terminology and different impressions by different people of what "AIDS" means. Thus a morass about HIV and AIDS has been created. I find it difficult to write systematically about this morass without becoming part of the morass.

A number of scientists have questioned the established view that "HIV is the cause of AIDS", and they have given evidence that this view - I call it dogma - may be invalid. Of course, there are diseases of which people die. Questions have arisen about which diseases, under what circumstances, and what causes them I shall give examples of the objections which have been raised about the establishment view, including alternative causes for some diseases lumped under the name "AIDS". I shall give examples of the way alternative hypotheses for the causes of some of these diseases may not have occurred to some researchers, or have been suppressed.

Raising questions about the view that "HIV is the cause of AIDS", and proposing alternative hypotheses (e.g. that drug use may be causing certain diseases under certain circumstances) has sometimes been interpreted as "doing a grave disservice to the American people" or "having potentially serious adverse public health consequences". The scientists who have proposed such alternatives have sometimes been called "flat earthers". However, in light of the possibility that the use of certain drugs and not HIV is causing certain diseases (e.g. Kaposi's sarcoma), I conclude that not warning people about this potential danger is doing them a grave disservice, and may be having serious adverse public health consequences.

For a decade, billions of dollars have been spent investigating HIV as a cause of diseases lumped together under the name "AIDS", without success. At the same time, proposals for funding research on other possible causes have been rejected. A conclusion summarizing objections to the established view was expressed by a

^{*)} **Serge Lang** Ph.D., is Professor of Mathematics at Yale University, New Haven.

- 'HIV and AIDS: Have we been misled? Questions of scientific and journalistic responsibility'
- 'To Fund Or Not To Fund, That Is The Question: Proposed experiments on the drug-AIDS hypothesis'
- Lang is the author of the book "Challenges" (Springer Verlag, 1998: 816 pages; ISBN 0-387-9-94861-9)

scientist at a conference of the Pacific Division of the American Association for the Advancement of Science in San Francisco on 21 June 1994: "AIDS will never be cured until we cure the research."

I shall also give examples of the way the scientific community and the public at large are not properly informed. I shall give examples how information has not come from the official scientific press, but from other sources, e.g. SPIN, the *London Sunday Times*, the *California Monthly (UC Berkeley Alumni Magazine)*, and the electronic nets, which sometimes constitute a contemporary form of *samidzat*. Thus the scientific questions which have been raised about the established view concerning HIV as "the cause of AIDS" set the stage to study how misinformation is spread and accepted uncritically, which is a major issue in its own right. The mainstream and official scientific press have promoted the official view about AIDS, mostly uncritically. When the official scientific press does not report correctly, or obstructs views dissenting from those of the scientific establishment, it loses credibility and leaves no alternative but to find information elsewhere.

Thus we find at least two consequences when the scientific establishment strays from the strict, classical, scientific standards of evidence, and obstructs dissent from an official line: some people may not be warned of practices which may be dangerous to their health, and the public loses trust in the scientific establishment.

§1. Gallo-Montagnier and the Gallo-HHS press conference

The Institut Pasteur discovered the virus called HIV. Both the Institut Pasteur and Gallo share responsibility in leading people to believe that "HIV is the AIDS virus", in other words, that AIDS is caused by a virus, and that this virus is HIV. The controversy between Gallo and Montagnier of the Institut Pasteur, about growing the virus and about its use for an HIV-antibody blood test, was the first major factor in making people accept unquestioningly that "HIV is the virus that causes AIDS".

Gallo's purported "discovery" of "the AIDS virus" was announced at a press conference by him and HHS Secretary Margaret Heckler on 23 April 1984. This press conference was a major factor in making people accept unquestioningly that "HIV is the AIDS virus". So was a Lasker award to Gallo, Essex and Montagnier in 1986 "for Leadership in Research on the Retrovirus That Causes AIDS and Contributions Toward Understanding this World Wide Public Health Threat".

§2. What do people mean by "AIDS"?

There does not even exist a single proper definition of AIDS on which discourse or statistics can reliably be based. Indeed, certain practices of the Centers for Disease Control (CDC) obstruct a scientific appraisal of the AIDS situation. The CDC definition of AIDS is circular. It involves a list of 24 to 29 diseases (depending on the year), about 60% of which have to do with immunodeficiency (including tuberculosis), and 40% have to do with other types of diseases, some of which are of cancer type, such as cervical cancer (included in 1992-1993), or Kaposi's sarcoma. CDC calls these diseases AIDS only when antibodies against HIV are confirmed or presumed to be present.¹⁾ If a person tests HIV negative, then the

¹⁾ For instance, in the publication *Confronting AIDS Update* by the Institute of Medicine (1988) we find:

p. 207: "The following revised case definition for surveillance of acquired immunodeficiency syndrome (AIDS) was developed by CDC in collaboration with public health and clinical

diseases are given another name. Statistics based on such a definition are very misleading, because the definition assumes the correlation. Furthermore, some statistics from some sources are based on the CDC definition, while others are not. What good are statistics obtained or reported under such circumstances? For example, to what extent did the inclusion of cervical cancer and tuberculosis in the group of AIDS-defining diseases cause statistics to show an increase in the rise of AIDS among heterosexuals?

Just talking about the "AIDS" situation is difficult because there are at least four possible notions defining AIDS differently for different people, namely:

- a) One definition, which is that of the Centers for Disease Control, is that AIDS is any one of a list consisting currently of 29 diseases, which are called AIDS if and only if the person is HIV positive. About 40% of these diseases do not involve immunodeficiency (e.g. cervical cancer).
- b) A second notion is that of an HIV-positive person who has a disease such that the person is wasting away, getting thinner, generally breaking down, and dying.
- c) A third notion is that of a person who is HIV-positive, currently without any symptoms of a disease, but it is assumed that the person will be dying of a disease as in case (b), in ten years, more or less.
- d) A fourth notion is that of a person who has currently (or had) a severe case of irreversible immunodeficiency, and is dying (or died) of immunodeficiency.

I shall attempt to make the distinctions clear in what follows, and I ask readers to exercise great caution and critical judgment when they are faced with material in the U.S. media concerning the nature and cause of AIDS. Readers should note that in many instances (and practically all instances which have come to my attention), being HIV positive is identified in U.S. newspapers with having AIDS (whatever AIDS is). So-called "news" articles usually do not make clear whether this means being sick and having severe immunodeficiency symptoms, or having one of the other diseases listed by the CDC as an AIDS-defining disease (in the presence of HIV), or whether it means being HIV positive while not having any diseases, but implying that AIDS (whatever it is) will come in some unspecified time and cause the death of the persons involved.

Example: A New York Times editorial. Most New York Times "news" articles that I have seen do not make the distinction between HIV and AIDS clear. These news articles are written as if "AIDS" had a well-defined universal meaning, which it does not, as I have pointed out. In any case, these articles assume that "HIV is the cause of AIDS" (whatever AIDS is), as in the editorial "Unyielding Aids", 13 August 1994, which stated: "The latest estimates from the World Health Organization suggest that some 17 million people have been infected so far with the AIDS virus and around 4 million have developed the disease." However, this sentence is defective in several ways.

First, use of the definite article ("the" disease) is misleading, because there is no single disease involved, according to the CDC.

specialists...The objectives of the revision are a) to track more effectively the severe disabling morbidity associated with infection with human immunodeficiency virus (HIV)..."

p.208: "For national reporting, a case of AIDS is defined as an illness characterized by one or more of the following "indicator" diseases, depending on the status of laboratory evidence of HIV infection, as shown below."

Second, reporting world-wide 4 out of 17 million who have developed "the disease" lumps together so many factors and is subject to so many objections (see §3 below), as to cause serious misrepresentations.

SOME IMPORTANT FIGURES

Some scientists who have promoted the establishment line on AIDS:

Anthony Fauci, Chairman of the National Institute of Allergy and Infectious Diseases.
Harold Jaffe, Acting Director of the I-IIV/AIDS division of the Center for Disease Control (CDC).

An establishment scientist who has supported AIDS research on nitrite inhalantes:

Harry Haverkos, Clinical director of AIDS research at the National Institute on Drug Abuse (NIDA).

Some scientists who have raised questions about the definition and causes of AIDS:

Harvey Bialy, molecular biologist, research editor of Biotechnology

Peter Duesberg, Professor of Molecular Biology, UC Berkeley.

Kary Mullis, Nobel Prize in Chemistry (1993) for the discovery of the polymerase chain reaction (PCR). "PCR made it easier to see that certain people are infected with HIV," as Mullis himself once said.

Robert Root-Bernstein, Associate professor of physiology at Michigan State University, East Lansing; author of *Rethinking AIDS: The Tragic Cost of Premature Consensus*, New York Free Press, 1993; author of *Diversity* (Harvard University Press, 1989; former MacArthur Fellow (1981-1986).

Harry Rubin, Professor of Molecular Biology, UC Berkeley.

Richard Strohman, Professor Emeritus of Molecular and Cell Biology, UC Berkeley; former Director of the Health and Medical Sciences Program at UC Berkeley.

Some journalists:

Celia Farber, author of several articles on AIDS over several years, in the magazine SPIN.

Neville Hodgkinson, science editor of the London Sunday Times.

Daniel Koshland, editor of Science.

John Lauritsen, author of *The AIDS War and Poison by Prescription: The AZT Story*.

John Maddox, editor of Nature.

Third, Richard Strohman wrote to the Times (13 August 1994) about their editorial referring to "the AIDS virus":

But this is a misdefinition... We all need to recognize that there is no AIDS virus; there is only HIV To date the scientific community is agreed that there is still no proven mechanism of causality linking HIV and AIDS. The NY Times' responsibility is to report accurately; it has not, and until it does its readers remain unprepared to support alternative approaches to AIDS causality, prevention and cure...

You also refer to the analogy in the fight against cancer. It is apt. The war on cancer initiated by President Nixon was declared as a war pretty much against viruses as a main cause. The war was declared lost years ago by most thoughtful biologists. Especially with the powerful evidence proving that cigarette smoking causes lung cancer, scientists turned to research seeking further environmental linkages ... If we could fully extend the analogy of cancer to AIDS we would create research possibilities far beyond the narrow view of virus-only causality which by itself has spent billions and saved riot a single life. Accurate reporting on the current state of AIDS can do no harm and could open all readers to possibilities not contained in the present misdefinition.

Strohman's letter to the editors was not published.

WHAT THEY SAID

From an interview (Q&A) with Kary Mullis in the California Monthly (UC Berkeley Alumni Magazine), September 1994:

Q: You mentioned Nobel Prize-winner David Baltimore a moment ago. In a recent issue of Nature, he said: "There is no question at all that HIV is the cause of AIDS. Anyone who gets up publicly and says the opposite is encouraging people to risk their lives."

A: So what? I'm not a lifeguard, I'm a scientist. And I get up and say exactly what I think. I'm not going to change the facts around because I believe in something and feel like manipulating somebody's behavior by stretching what I really know.

I think it's always the right thing and the safe thing for a scientist to speak one's mind from the facts. If you can't figure out why you believe something, then you'd better make it clear that you're speaking as a religious person, not as a scientist. People keep asking me, "You mean you don't believe that HIV causes AIDS?" And I say, "Whether I believe it or not is irrelevant! I have no scientific evidence for it." I might believe in God, and He could have told me in a dream that HIV causes AIDS. But I wouldn't stand up in front of scientists and say, "I believe HIV causes AIDS because God told me." I'd say, "I have papers here in hand and experiments that have been done that can be demonstrated to others." I believe it was decided in the 17th century around the founding of the Royal Society that that was the way science was to stake its claims. It's not what somebody believes, it's experimental proof that counts. And those guys don't have that.

The quote by David Baltimore is from die article "AAAS criticized over AIDS sceptics meeting", by C. Macilwain, Nature 369 (1994) p. 265

§3. HIV and AIDS

Some scientists, including especially Peter Duesberg for several years, have challenged the hypothesis that "HIV is the cause of AIDS", and have provided some evidence for their challenge. In the past, I myself have sometimes used the expression "AIDS virus" in referring to HIV. In light of existing documentation, all such references should be amended to contain the qualification "alleged". At the time this essay is written, I do not regard the causal relationship between HIV and any disease as settled. I have seen considerable evidence that highly improper statistics concerning HIV and AIDS have been passed off as science, and that top members of the scientific establishment have carelessly, if not irresponsibly, joined the media in spreading misinformation about the nature of AIDS and its connection with HIV or its connection with the use (possibly repeated use) of certain drugs. Specifically:

But this is a misdefinition ... We all need to recognize that there is no AIDS virus; there is only HIV.

To date the scientific community is agreed that there is still no proven mechanism of causality linking HIV and AIDS.

1. No scientific piece of evidence.

Some scientists (including Peter Duesberg and Kary Mullis, independently), have pointed out that there is no scientific piece of evidence showing that HIV causes any disease. For instance Kary Mullis is quoted in an interview (California Monthly, September 1994 p. 20):

What happened was so simple I don't understand why it never happened to other people. In the late 1980's, I was working for several companies that were using PCR to detect HIV sequences. I would get into a situation where I'd have to

write a little report on what was going on at one of the companies. And I would find myself in a position of having to write a sentence that said, "HIV is the probable cause of AIDS".

I figured there must be a standard reference or two I could use to back up that statement. So I just yelled across the room, "What's the reference for 'HIV is the cause of AIDS'?" Some guy said, "Oh you don't need a reference for that. Everybody knows that." And I said, "I think it should be footnoted. When you make a direct statement like that, you give a source. You say, "Here's how I know that's true.' I think it's good form."

So he said, "Why don't you cite this Centers for Communicable Diseases [CDC] report?" He gave it to me. It was a stupid little thing, without scientific merit; you might as well quote the New York Times. So I went to other people in the lab, and I started looking at the scientific literature, and I began to notice that nobody ever quoted a scientific paper to back up the notion that HIV causes AIDS.

Both Duesberg and Mullis have emphasized that the papers of Montagnier, Gallo or others do not provide any scientific justification that HIV causes a disease. They asked for such papers but none was forthcoming. In his *California Monthly* interview, Mullis tells how he began to think there was "something fishy" about the evasive answers he was getting to his questions. He tells about the way he confronted Montagnier in San Diego, after Montagnier had given a talk on AIDS. Mullis "noticed that Montagnier hadn't said one word about how come we ought to think HIV is the cause of AIDS". After the talk Mullis asked Montagnier directly for a scientific reference, and Montagnier admitted that none existed.

Duesberg wrote a letter dated 11 February 1993 to Harold Jaffe, Director of the HIV/AIDS Division at the CDC. In that letter, Duesberg asked: "Exactly which papers are now considered proof or, if there is no proof, the best support for the HIV-AIDS hypothesis?" Not a single specific paper was mentioned in Jaffe's reply. Jaffe only gave what he viewed as epidemiological evidence.

2. The case of chimpanzees.

From 1983 to the late eighties, 150 chimpanzees were infected with HIV, but did not become sick as of 1994. This information was obtained by Duesberg directly from Jorg Eichberg, cf. Duesberg's article "AIDS acquired by drug consumption and other noncontagious risk factors", *Journal of Pharmacology and Therapeutics* [referred to as *Pharmac. Ther*] Vol. 55 (1992), pp. 203 and 211. Like humans, chimpanzees are susceptible to HIV. The virus replicates in them and antibodies form against it exactly as in human beings.

3. What does HIV-positive mean?

A difficulty lies in determining who is "HIV positive" and what HIV positivity means. The blood test for HIV does not determine directly the presence of the virus. At best it determines only having antibodies to the virus called HIV, and this blood test is not infallible.

Furthermore, Duesberg has brought to my attention scientific papers showing that antibodies to the influenza virus, tuberculosis bacillus, and leprosy bacillus have each been shown to give false HIV positive tests.²⁾ Such findings were also

²⁾ Duesberg gives the following references:

reported in the *London Sunday Times* ("Research disputes epidemic of Aids", 22 May 1994, p. 24), where its science editor Neville Hodgkinson wrote:

An authoritative new study has uncovered powerful evidence that the 'Aids test' is scientifically invalid, misleading millions into believing they are HIV positive when they are not infected with the virus.

The findings, published in the Journal of Infectious Diseases, provide practical evidence that HIV tests may be triggered by other factors, such as leprosy and tuberculosis. They have heightened concerns that the spread of Aids in Africa has been wildly exaggerated.

The discovery was made by a team headed by Dr. Max Essex of Harvard University's School of Public Health and a highly respected Aids expert. One of the originators of the hypothesis linking HIV with Aids, Essex was also a leading exponent of the theory that the virus originated in Africa.

Kary Mullis has also been quoted about HIV-positivity in the context of "African AIDS": "...They got some big numbers for HIV-positive people [in Africa] before they realized that antibodies to malaria - which everyone in Africa has - show up as 'HIV-positive' on tests." (Interview in the *California Monthly*, September 1994, p. 21).³⁾

4. HIV-negatives with AIDS-defining diseases.

There exist thousands of Americans who have AIDS-defining diseases but are HIV negative. It is quasi impossible to give proper statistics about how many thousands, partly because of the multiplicity of diseases used to define "AIDS", and also because of the lack of studies which would systematically report overall figures, either for individual diseases or all of them as a group.

5. HIV-positives without diseases.

Conversely, there are hundreds of thousands who test HIV positive but have not developed AIDS-defining diseases. As noted by the magazine SPY (February 1993,

-
- for the flu, Mac Kenzie, W. R., Davis, J.P., Peterson, D. E., Hibbard, A.J., Becker, G. and Zarvan, B.S., "Multiple false-positive serologic tests for HIV, HTLV-1, and Hepatitis C following Influenza vaccination," *J. Am. Med. Assoc.* 268 (1992) pp. 1015-1017.
 - for tuberculosis, Pitchenik, A. E., Burr, J., J., Suarez, M., Fertel, D., Gonzalez, G. and Moas, C., "Human T-cell lymphotropic virus-III (HTLV-III) seropositivity and related disease among 71 consecutive patients in whom tuberculosis was diagnosed: a prospective study," *Am. Rev. Respir. Dis.* 135 (1987) pp. 875-879.
 - also for tuberculosis, St. Louis, U. E., Rauch, K. J., Peterson, L. R. et al. "Seroprevalence rates of human immunodeficiency virus infection at sentinel hospitals in the United States," *N. Eng. J. Med.* 323 (1990) pp. 213-218
 - for leprosy, Kashala, O., Marlink, R., Ilunga, M., Diese, M., Gormus, B., Xu, K., Mukeba, P., Kasongo, K. and Essex, M., "Infection with Human Immunodeficiency Virus Type I (HIV- 1) and Human T Cell Lymphotropic Viruses among Leprosy Patients and Contacts: Correlation between HIV-I Cross-Reactivity and Antibodies to Lipoarabinomannan, *J. Inf. Dis.* 169 (1994) pp. 296-304.

³⁾ Duesberg provided me with the following references for antibodies against malaria registering as false-positive for HIV:

Biggar, R.I., "Possible nonspecific associations between malaria and HTLV-III/LAV, *N. Engl. J. Med.* 315 (1986) p. 457

Biggar, R. J., Gigase, P. L., Melbye, M., Kestens, L., Sarin, P. S., Bodner, A. J., Demedts, P., Stevens, W. J., Paluku, L., C., D.H. et al. "ELISA HTLV retrovirus antibody reactivity associated with malaria and immune complexes in healthy Africans. *Lancet* 2 (1985) pp. 520-523

p.19), since 1985, the CDC has stated each year that there are approximately one million Americans who are HIV positive. The CDC figure remained constant from 1985 to 1993. But most of these people have not gotten sick with one of the diseases listed by CDC in defining AIDS. Responding to Duesberg's letter dated 11 February 1993, Harold Jaffe replied on 5 March 1993 that, of these one million, "approximately 900,000 have not developed one of the clinical conditions included in the 1987 AIDS case surveillance definition." So in 1993, the CDC was asserting that about 90% among HIV positives have not developed an AIDS-defining disease.

Jaffe's percentage figure is quite different from the figure attributed by the New York Times to the World Health Organization. The numbers game still goes on, as reported for instance in a New York Times article "Obstacle-Strewn Road to Rethinking the Numbers on AIDS" (1 March 1994, p.B8), by Lawrence K. Altman, M.D., who regularly writes on HIV and AIDS for the Times, and systematically calls HIV "the virus that causes AIDS". The article started: "Determining how many Americans are infected with the virus that causes AIDS is an imprecise science at best... it appears that the current estimate of one million will be lowered ... For planning purposes, health officials need to know where and how many new cases of H.I.V., the virus that causes AIDS, are occurring." In his article, Altman gave a revised figure ranging from 600,000 to 800,000, and reported that the figures might go down further.

Note that the figure of 1 million "estimated cumulative HIV infections" in North America has also been given by the World Health Organization ("The HIV/AIDS Pandemic 1993 Overview", The WHO, June 1993). This figure and other WHO figures for Western Europe (500,000) and Sub-Saharan Africa (8 million) were reproduced in a table prominently displayed in the article "HIV: beyond reasonable doubt" (The New Scientist, 15 January 1994, p. 24).

Just what is "beyond reasonable doubt"? Considering the way some estimated numbers are now dropping radically, it follows that official figures from the CDC or WHO cannot be trusted. The figures these organizations put out add to the chaotic and unreliable mess which exists in lieu of information about HIV and various diseases.

6. Hemophiliacs.

Questions have also arisen about AIDS being transmitted to hemophiliacs via blood transfusions. Such questions were raised for example in Peter Duesberg's letter to Harold Jaffe. Duesberg was careful about distinguishing HIV from diseases presumed to have been caused by HIV. He wrote:

It is frequently claimed that transfusion AIDS was eliminated by eliminating HIV from the nation's blood supply. Of course, screening for HIV did essentially eliminate the transmission of this virus by transfusions. But it did not affect the mortality and morbidity of recipients of transfusions. We must here distinguish between non-hemophiliacs and hemophiliacs...

(a) Non-hemophiliacs. Since all transfusion recipients, other than hemophiliacs, are already severely ill by the time they receive their transfusions, the mortality rates of HIV-positives and negatives provide the most objective statistics on the possible role of HIV as a cause of diseases. In the rare cases where such controlled studies have been done, the mortality has been the same for both groups...

(b) *Hemophiliacs.* *The mortality of American hemophiliacs has actually decreased since 75% (some 15,000) of them were infected by HIV via transfusions received over a decade ago... As for the incidence of immunodeficiency in hemophiliacs with and without HIV, at least 16 controlled studies comparing these incidences have shown that immunodeficiency is independent of HIV, but depends on the lifetime dose of transfusions and factor VIII...*

See also Duesberg's comments on hemophiliacs in his *Pharmac.Ther.* paper, pp. 216-220, as well as an exchange concerning hemophiliacs at the AAAS meeting mentioned in §4 below.

Furthermore, among other places, a *London Sunday Times* editorial taking to task some of the establishment press for not reporting properly on the AIDS situation, had this to say about the case of hemophiliacs (12 December 1993): "*Nature* should also be discussing the remarkable story of the HIV positive hemophiliacs whose immune systems, after declining for many years in ways that were attributed to HIV, have recovered fully after they were switched to a new form of treatment for their blood-clotting disorder. There now seems no reason why they should not live a normal lifespan, regardless of their HIV status."

As for Kary Mullis, in his *California Monthly* interview, he said: "The IV-drug users are exchanging blood all the time, so they're getting everybody's diseases. This was true for hemophiliacs too before recombinant factor was available. If you're getting blood from lots of other people, you're getting a lot of organisms along with it."

7. Different diseases in different risk groups.

In addition, Duesberg's letter to Jaffe pointed out that people in different risk groups in the United States come down with different "AIDS-defining" diseases. This phenomenon provides evidence that those diseases do not have a single cause, but different causes depending on different circumstances. For example, Duesberg wrote that among patients who have "AIDS-defining" diseases according to the CDC, "Kaposi's sarcoma is almost totally restricted to male homosexuals; tuberculosis is prevalent in intravenous drug users; microbial and fungal diseases, such as pneumonia and candidiasis, are practically the only AIDS defining diseases ever observed in recipients of transfusions; finally, until the most recent reclassification of diseases under the AIDS umbrella on January 1, 1993, bacterial infections were exclusively diagnosed in babies who were defined as having AIDS according to the CDC..."

8. Differences with Africa.

Differences exist not only internally within the United States, but also internationally. According to Duesberg ("The Last Word", *Biotechnology* Vol. 11, August 1993, p. 956), "'since a clinical definition is used in Africa, statistics [about AIDS patients] from this continent are not biased against HIV-free AIDS..." Duesberg cites several specific studies about actual AIDS patients from Africa which show that approximately 50% of the diagnosed AIDS cases in these studies were HIV-antibody negative. Some of these patients suffered from diseases such as weight loss, diarrhea, chronic fever, tuberculosis, and neurological diseases. Statistics about AIDS patients in Africa also report equal distribution of AIDS among male and female. Some studies showed that HIV positivity did not precede but followed weight loss by several months and possibly years. Furthermore some diseases associated with specific risk groups in the U.S. have not always been diagnosed as part of the "AIDS epidemic" in Africa. For instance, the authors of

one study wrote: "Since KS [Kaposi's Sarcoma] has long been endemic in Zaire, only patients with fulminant KS were included." [4] Aside from all that, we recall that antibodies to malaria and other diseases prevalent in Africa show up as HIV-positive on tests. Hence the evidence suggests that whatever epidemic is taking place in Africa is due to causes different from those affecting the main risk groups in the U.S., such causes possibly involving malnutrition, poor sanitation, and other factors.

The article cited in footnote ⁴⁾ evaluates critically the AIDS situation in Africa. In the abstract at the beginning of the article, one finds: "It is concluded that both acquired immune deficiency (AID) and the symptoms and diseases which constitute the clinical syndrome (S) are long standing in Africa, affect both sexes equally, and are caused, directly and indirectly, by factors other than HIV."

9. Destruction of T-cells?

Even if patients have diseases unrelated to immunodeficiency, the HIV-AIDS hypothesis asserts that HIV affects the immune system in some fashion, for instance by destroying T-cells, thus making a person more liable to develop these other diseases. However the available evidence does not show that HIV destroys T-cells:

(a) There exist studies which show the existence of patients who test HIV-positive, who have diseases such as Kaposi's sarcoma, dementia, wasting disease, but who have a normal T-cell count, and have no immunodeficiency. There exist similar studies when the patients are HIV-negative. Duesberg gives examples of both in his article (*Pharmac. Ther.* p. 228, referring to half a dozen independent studies, listed in the bibliography). He concludes: "Thus, the assumption that all AIDS diseases are caused by immunodeficiency is erroneous."

(b) As for HIV killing T-cells in laboratory cultures, Duesberg draws attention to the fact that T-cells are notoriously difficult to maintain alive, whether infected with HIV or not. He gives scholarly references to the effect that they are not more difficult to maintain alive in the presence of HIV than in the absence of HIV (*Pharmac. Ther.* p. 229). In addition, HIV is mass produced for the HIV antibody blood test in permanently self reproducing T-cells, in many laboratories and companies.

10. A correlation between HIV and AIDS?

Supporters of the hypothesis that "HIV is the cause of AIDS" (whatever this means) rely on what they see as a "correlation", that antibodies to the HIV virus are present in some (many? all?) people having AIDS (whatever AIDS means). However there are several reasons for reading whatever "correlation" exists with caution.

(a) I have already commented on the circularity of the CDC definition, which makes the correlation 100% if this definition is accepted; and on the problem of having meaningful statistics concerning the association of HIV with the multiple AIDS-defining diseases in the CDC list if a clinical definition is taken.

⁴⁾ For a more extensive account of such studies, see E. Papadopoulos-Eleopoulos, V.F. Turner, J.M. Papadimitriou, and Harvey Bialy, "AIDS IN AFRICA: DISTINGUISHING FACT FROM FICTION", in press, *World J. Microbiology & Biotechnology*, 1995. Bialy is research editor of *Biotechnology*, and was an active participant at the AAAS Pacific Division meeting on HIV and AIDS, 21 June 1994; see below.

(b) Some people in the risk groups among which the actual disease is prevalent engage in practices whose effect is to increase the possibilities of passing on various viruses or microbes from one person to another, whether these are pathogenic or not. Among these viruses is HIV. Thus one explanation for the more extensive presence of HIV in risk groups lies in these practices. On the other hand, the spread of the HIV virus or other viruses in certain groups (for instance prostitutes) by itself does not necessarily correlate with this group being at high risk for AIDS-defining diseases. For instance, prostitutes who do get some AIDS-defining diseases on the whole are also found to engage in other practices besides sex, e.g. drug use. (See Duesberg's *Pharmac. Ther.* paper, p. 238.)

(c) Although there is a correlation of lung cancer with smoking, there is also a correlation of lung cancer with yellow fingers. This does not imply that yellow fingers cause lung cancer. Even when a "correlation of HIV with AIDS" is claimed, there may be another correlation which is even stronger, namely between certain diseases and the use of drugs of various sorts, ranging from recreational drugs such as "poppers" to purportedly HIV-inhibiting drugs such as AZT (see §4 and §5 below). It may simply be that HIV is an opportunistic virus which tends to be present when some disease are present. Thus HIV would be merely a marker rather than a cause for whatever disease is involved.

A number of other points raise questions about the causal relationship between HIV and various diseases, but I merely wanted to give a sample here. Of course, none of the above points gives a conclusive answer as to what causes AIDS, or what does not cause AIDS in human beings, whatever AIDS is. I have no definitive answer. I merely question the line upheld up to now by the biomedical establishment, and repeated uncritically in the press, that "HIV is the virus that causes AIDS".

The improper reporting in the press reflects defective statements from many scientists who promote the establishment line about HIV being the cause of AIDS. That "'HIV is the cause of AIDS" is taken as a postulate, and some scientists try to fit experimental data into this postulate, actually without success. Sometimes they hedge by speaking of "association" rather than "cause". Sometimes they state that they are still looking for "the enigmatic mechanism of the pathogenesis of HIV", which means they haven't found the way HIV causes any disease and are still looking. So how come they assert without qualification that "HIV is the cause of AIDS"?

§4. Some revisionism

The "drug hypothesis". An alternative hypothesis concerning a possible cause of some AIDS-defining diseases is sometimes called the "drug hypothesis". Roughly speaking, this hypothesis asks whether drug use causes some of the diseases officially associated with AIDS, such as immunodeficiency and Kaposi's sarcoma. Various drugs could be involved, ranging from sex-enhancing recreational drugs such as amyl-nitrite ("poppers"), to cocaine or heroin, and also allegedly HIV-inhibiting drugs such as AZT. The time period and the cumulative effect may also be factors involved in the causation. The situation may be similar to prolonged use or abuse of alcohol causing cirrhosis of the liver, or smoking causing lung cancer.

Originally, in the early eighties, the drug hypothesis was among the first which occurred to scientists. It was abandoned, or overlooked, or disregarded by most establishment scientists in large part because of the Gallo-Montagnier controversy, and the Gallo press conference in 1984. It was never completely

abandoned, even by some individuals in the CDC. For instance, as late as 1988, the National Institute of Drug Abuse (NIDA) published a monograph entitled "Health hazards of nitrite inhalants" dealing with many aspects of the toxicity of nitrite inhalants. Harry Haverkos, clinical director of AIDS research at NIDA, and co-editor of the above monograph, still supports having experiments made to test the nitrite-AIDS hypothesis. However, research on causes for "AIDS" other than HIV has been obstructed in various ways, including social and scientific pressure, and non-funding.

In 1993-1994, there was some evidence of a revisionist movement which surfaced sporadically, partly on TV, partly in some of the non-mainstream press in the United States, and in other places. Thus some of the media started reporting questions raised by some scientists about the role of HIV in causing "AIDS". The year 1994 especially saw a continuing evolution in thinking about HIV, and what is regarded as appropriate for mainstream publications. I shall list some examples of media reports of the revisionist movement.

Peter Duesberg. In the last decade, Peter Duesberg has been one of those who have continued to raise questions about the drug hypothesis seriously. For decades he had been in high standing with NIH and had been continuously funded, receiving "outstanding investigator" grants. After he spoke out clearly challenging the dogma about HIV being "the cause of AIDS", and supporting the drug hypothesis, he lost his grants.

In 1992 he applied to the Department of Public Health for funding for experiments to test the drug hypothesis on animals (for instance, "feed poppers to mice" as he once said in picturesque language).

Duesberg's application was supported by the editor of *Science*, Daniel Koshland, who wrote to the Study Section of the National Institute on Drug Abuse to urge the funding (26 August 1993), stating in part: "As an observer, I have in the past been critical of Duesberg for not suggesting experiments to resolve this controversy. However, he has now answered my call with a proposal to test the role of nitrite inhalants as a cofactor in AIDS... Duesberg's proposal is a specific, workable one that will be done in collaboration with an inhalation toxicologist at the University of California, Davis. I believe this research would add much to our understanding of AIDS, and I have told Duesberg that I would consider such data important material for readers of *Science* if it develops appropriately." In fact, Koshland iterated his support for funding Duesberg's experiments a year later, in a letter dated 24 August 1994.

Duesberg was not funded. He received a notice stating (13 December 1993): "The Initial Review Group (IRG) has recommended that NO FURTHER CONSIDERATION BE GIVEN TO THIS APPLICATION. [Capital letters in the original.] Applications so designated cannot be funded in their current form; therefore they are not routinely scheduled for second-level review by the National Advisory Council/Board..." (See my essay "To fund or not to fund..." for details.) *Science* did not report on the situation, despite the interest expressed by its editor.

A Meeting sponsored by NIDA; report in *Biotechnology*. On 23 and 24 May 1994, the National Institute on Drug Abuse (NIDA, Rockville MD) sponsored a meeting on the toxic effects of nitrite inhalants. This meeting was not covered by *Science* and the *New York Times*, for example. The 12 August 1994 issue of *Biotechnology* reported on this meeting under the headline: "NIH reconsiders nitrites' link to AIDS". A displayed conclusion of the article stated: "A consensus

is developing that the connection between nitrites and AIDS goes beyond their promoting of HIV transmission and that understanding nitrite toxicity should be a priority of AIDS research."

The article, by John Lauritsen, stated among other things:

Meeting participants were divided into those whose primary interest is in studying nitrite inhalants as an important risk factor for AIDS, because their use encourages transmission of HIV via unsafe sex, and into those who think that the mutagenic and carcinogenic nitrites function more directly, either causing AIDS alone or acting as cofactors of HIV. Both sides were supported by strong epidemiological correlations between nitrite use by male homosexuals and AIDS. For example, according to Jay Paul of the University of California at San Francisco, the highest risk for AIDS involves the use of poppers and four other drugs. And Lisa Jacobson of Johns Hopkins University (Baltimore, MD) reported that 60-70 percent of the several thousand gay men at risk for AIDS who participate in the Multicenter AIDS Cohort Study (MACS) have used nitrites.

In addition, those favoring a more direct role of nitrites in AIDS pointed to data from the MACS showing that HIV-negatives had, on average, 25 months of nitrite use, HIV-positives had 60 months of nitrite use, and AIDS patients had over 65 months of nitrite use - an apparent dose-response relation. When asked whether there was even one gay AIDS case in the cohort who had not used drugs, a somewhat-surprised Jacobson replied, "I have never looked at the data in this way."

Jacobson's answer documents the extent to which researchers have shut-out questions which did not fit into the establishment dogma about HIV being the virus that causes AIDS, to the exclusion of other hypotheses in general, and the drug hypothesis in particular.

Lauritsen's article in *Biotechnology* also reported several other studies linking nitrites to AIDS, notably:

Harry Haverkos, acting director for clinical research at NIDA and chairman of the meeting, extended his original observations on the role of poppers in gay AIDS and reported an essentially exclusive correlation between nitrite use and gay KS [Kaposi's Sarcoma]. The hypothesis of Harold Jaffe of the CDCP [Centers for Disease Control and Prevention] that an "unknown infectious agent" is the cause of KS could not be reconciled with Haverkos' evidence that there was not a single confirmed case of KS from blood transfusions, which often contain infectious agents.

SPIN. Celia Farber wrote a number of articles on the developing AIDS revisionism in the magazine SPIN, for instance "AIDS - WORDS FROM THE FRONT", 10 January 1994, p.71, where she reported:

In 1993, we witnessed a dizzying spectacle of collapsing certainties and quick political repositioning around the subject of AIDS...

This year, however, the editor of Science [Daniel Koshland] wrote a letter to the National Institute of Drug Abuse, requesting that Duesberg be funded to test his drug hypothesis.

The mainstream [U.S.] press has remained largely oblivious to the HIV debate, and the progressive liberal press (Village Voice, etc.) strictly shrill, anti-debate, and ill-informed as ever. Yet major network television proved to be

surprisingly progressive in 1993. In March, ABC aired a groundbreaking half hour segment on the program Day One, on which they interviewed Duesberg, Dr. Joseph Sonnabend, Dr. Robert Root-Bernstein, Walter Gilbert, and other HIV skeptics. Gallo threw an on-camera tantrum storming off the set when asked about Duesberg, fuming that the reporters were doing a "grave disservice to the American public."

The article goes on:

But perhaps the single most important event of 1993 was the release of the much awaited Concorde trial, which showed that AZT does not prolong life or improve health in people who are HIV-positive but still healthy.⁵⁾ Former AZT supporters leaped from the sinking ship... The Group for the Scientific Reappraisal of the HIV/AIDS Hypothesis had a 1,000 percent increase in signatures following the release of the Concorde results... In October, one of the group's long-standing members became a Nobel Laureate in chemistry: Dr Kary Mullis, inventor of the gene-amplification technique Polymerase Chain Reaction (PCR). PCR is one of the main biological tools used in AIDS research. But a fact that is virtually never reported is that Mullis is all HIV-skeptic. In 1991, speaking on the record for the first time, Mullis told SPIN, "PCR made it easier to see that certain people are infected with HIV, and some of those people cattle down with symptoms of AIDS. But that doesn't begin even, to answer the question, "Does HIV cause it?"

Celia Farber published an interview with Kary Mullis in the 4 July 1994 issue of SPIN, from which I quote.

Our talk focused on AIDS. Though Mullis has not been particularly vocal about his HIV skepticism, his convictions have not, to his credit, been muddled or softened by his recent success and mainstream acceptability. He seems to revel in his newly acquired power "They can't pooh-pooh me now, because of who I am," he says with a chuckle - and by all accounts, he's using that power effectively..⁶⁾

⁵⁾ There are indications that mortality in the AZT group was substantially higher than in the placebo group. An editorial analysis is given in *The Lancet*, 7 August 1994 under the title: "Zidovudine for mother, fetus, and child: hope or poison." "Zidovudine" is another name for AZT. Duesberg has also pointed to the toxic effects of AZT. So did Kary Mullis in his *California Monthly* interview, where he said that "most people who have HIV don't ever get AIDS, although people who have HIV and no symptoms and take AZT die ... But they die from the poison AZT, not from AIDS."

⁶⁾ Actually, Mullis in April 1994 was at a scientific meeting in Europe, where- he is reported to have acted like a jerk. Cf. a letter to *Nature* by John F. Martin., President of the European Society for Clinical Investigation, *Nature* 371, 8 September 1994. His capacity for acting like a jerk (his own word) was mentioned in his *California Monthly* interview. Nobody I know is hiding this aspect of his personality. My conclusion about dealing with Kary Mullis is to separate what he does on a personal basis, and which has sometimes been objectionable, from the insights he provides as a scientist when he's not behaving like a jerk.

He does not always act like a jerk at meetings, for instance at the Pacific Division AAAS meeting (see below), where he raised perfectly valid questions. The answer which Kary Mullis gave to the quote from Baltimore, extracted at the beginning of this article, was very sensible, to the effect that what he believes about AIDS is irrelevant, because beliefs have to do with religion, and we are attempting to deal with science. What is scientifically relevant is what documentation is available about the *Nature* of HIV and its effects, and what documentation is available about various diseases and antibodies for certain viruses or bacilli.

It is unfortunate that in addition to all other problems one is facing in the confrontation about HIV and AIDS, one has in addition to cope with the personal behavior of a scientist who had enough insight to discover PCR. It is left for participants in the HIV-AIDS debate to sort out the personal behavior from the scientific one.

When ABC's Nightline approached Mullis about participating in a documentary on himself, he instead urged them to focus their attention on the HIV debate. "That's a much more important story," he told the producers, who up to that point had never acknowledged the controversy. In the end, Nightline ran a two-part series, the first on Kary Mullis, the second on the HIV debate. Mullis was hired by ABC for a two-week period, to act as their scientific consultant and direct them to sources. The show was superb, and represented a historic turning point, possibly even the end of the seven-year media blackout on the HIV debate...

Celia Farber also mentioned the hypothesis that Kary Mullis has concerning the breakdown of the immune system in some of the risk groups: "Kary Mullis hypothesizes that AIDS is not caused by any single organism, but by prolonged exposure to an overwhelming number of distinct organisms, which individually may be harmless."

In November 1994, SPIN published a four-page article on Harry Haverkos, who was chairman of the NIDA meeting. I quote from this article:

Surrounded by stacks of medical journals in his cramped office, Haverkos gives four main reasons why he links KS with nitrite use. First, there is the statistical connection. Repeated use of poppers and incidence of KS have been confined to gay men. "About 96 percent of Kaposi's cases occurs in gay men, who make up 65 percent of all AIDS cases," he says. Twice as many whites as blacks use poppers and twice as many get KS...

Second, there is the lack of a firm HIV connection to KS. No cases of KS have been reported among blood-transfusion recipients where the blood donor himself later developed the cancer...

The third reason Haverkos suspects a nitrite connection to KS is that the disease is caused by art abnormal growth of blood vessels, and nitrites act on blood vessels...

Finally, Haverkos says, "The KS lesions are most common on the face, nose, and chest. If you are inhaling vapors, that is where you will have the highest concentrations. " Put those points together, he says, and "you don't have to be a rocket scientist to see that there is some logic to the hypothesis. "

... Haverkos believes the government's uinofficial position, today is that HIV may not be involved in KS, but whatever is, is transmitted sexually; the unwritten rule of public health seems to be that infection disease always trumps toxicology. Haverkos argues: "If somebody could find me five white women with Kaposi's who did not use nitrites, between the ages of 18 and 45, sexually linked to a mail with Kaposi's - just five couples - that would take me back. But we're 13 years into this epidemic, and I have not seen such cases reported. If this was a sexually transmitted agent, there ought to be a handful of women like that."

Once again, one finds such analyses from a "lone crusader at the National Institutes of Health" (as SPIN calls Haverkos) in SPIN, but not in *Science* or the *New York Times*, or the other major scientific or main-stream newspaper and magazines.

London Sunday Times. Perhaps the most spectacular revisionist event was the publication of a series of articles in fall 1993 by the *London Sunday Times*, which also quoted Kary Mullis in the *Sunday Times* editorial (12 December 1993): "The HIV theory, the way it is being applied, is unfalsifiable and therefore useless as a medical hypothesis ... If there is evidence out there that HIV causes Aids, there should be some scientific documents which either singly or collectively demonstrate that fact, at least with a high probability. There is no such document."

We used to think we knew that everyone is at equal Risk for HIV and AIDS, and that a heterosexual epidemic was inevitable. But the epidemiology of AIDS has yet to prove consistent with that view...

The *Sunday Times* series of articles was virulently attacked by some of the medical and scientific establishment, especially in editorials by *Nature's* editor John Maddox, such as the one of 9 December 1993. *The Sunday Times* science editor Neville Hodgkinson replied equally vigorously on 12 December 1993. His reply began:

The Sunday Times has been subjected to a wave of extraordinary attacks in recent weeks over its attempts to widen discussion of one of the most crucial medical and scientific issues of our time, the cause of AIDS.

A growing body of evidence suggest that when the medical and scientific communities rallied in 1984 behind a call to arms against the Human Immunodeficiency Virus (HIV) as the purported cause of a terrible new syndrome afflicting homosexuals and drug-users, they may have picketed the wrong target.

This sensational possibility, now being contemplated by numerous doctors, scientists and others intimately concerned with the fight against the disease, deserves the widest possible examination a debate. Yet it has been largely ignored by the British media and suppressed almost entirely in the United States.

The *Sunday Times* also wrote: "We look forward to seeing *Nature* open its pages to the views of this distinguished scientist [Kary Mullis], who received the [Nobel] prize for a genetic test now used worldwide by Aids researchers."

The *New York Times* is among the newspapers which has not given examination and debate for the above "sensational possibility". However, it did report the existence of the controversy between the *Sunday Times* and *Nature* in the article "British Paper and *Science* Journal Clash on AIDS", even though it did not report the substance of the documentation presented either by the *Sunday Times* or its critics.⁷⁾

⁷⁾ *New York Times*, 10 December 1993, p. A9. Sample from this article:

But the newspapers latest crusade - a series of articles or prominently displayed articles boldly arguing that the AIDS epidemic in Africa is a myth and strongly suggesting that H.I.V. is not the way the AIDS infection spreads - has provoked bewilderment and anger among some Government health officials. AIDS organizations and many scientists, some of whom have accused The *Sunday Times* of betraying the public trust and misleading its four million readers...

Dissident theories on the putative cause of AIDS, including those of Dr. Peter Duesberg, an American molecular biologist, have been widely debated over the last decade and dismissed by most Government and research organizations as scientifically unsound...

In addition to *Nature's* stinging attack, *The Sunday Times's* coverage has prompted criticism from Government officials, charities, and relief agencies involved with AIDS. Kate

Hodgkinson in his articles had pointed to some instances when Maddox did not publish pieces going against the hypothesis that HIV is the AIDS virus. On one occasion when Maddox did not publish such a piece, his position was summarized as follows ("Has Duesberg a right of reply?", editorial in *Nature* 363, 13 May 1993, p.109): "The truth is that a person's 'right of reply' may conflict with a journal's obligations to its readers to provide them with authentic information. Whatever Duesberg's friends say,⁸⁾ the right of reply must be modulated by its content."

Furthermore, Maddox accused the *Sunday Times* of "selective reporting of the evidence" (among other things). However, at a time when *Nature* itself refused to print certain articles questioning the HIV causality of AIDS, Hodgkinson stated: "Despite distortions and inaccuracies, the [*Nature*] editorial deserves a wider audience than *Nature*'s, both in the interests of open debate and because of the insight it gives into the mind of the journal's editor. So we reprint it in full below, with Maddox's permission, though he requested £200 [about \$300] for the privilege."

A subsequent issue of the *London Sunday Times* (3 April 1994) headlined: "These scientists are among hundreds now challenging the accepted view on Aids. But the establishment won't let them be heard." Below the photographs of ten scientists, accompanied by brief quotes from each, the *Sunday Times* science editor Neville Hodgkinson wrote:

... Scientists, too, have to be careful not to rock the HIV boat, which carries jobs, reputations, and huge research funds. Despite the pressure, a large and growing network of highly qualified 'dissidents' has become established worldwide over the past two years. They not only challenge the HIV hypothesis, but have 'come out' publicly about their concerns. More than 450 have put their names to a letter demanding a reappraisal of the conventional view, arguing that the HIV hypothesis is at best unproven, at worst discredited..."

Most of the names are American-based, but overall the list spans 23 countries.

It is the tip of an iceberg of dissent. The group's newsletter has a mailing list of more than 2,000...

Signatories of the reappraisal letter are united in wanting a change in direction; they differ in the extent to which they reject the HIV theory.

Some, like Dr. Charles Thomas, a molecular biologist and former Harvard professor of biochemistry, say it is complete nonsense...

Others, like Dr. Lawrence Bradford, a biology professor in Atchison, Kansas, and Dr. Roger Cunningham, a microbiologist and director of the center for

O'Neil, a spokeswoman for the Terrence Higgins Trust, Britain's largest AIDS charity, said she agreed that newspapers have a responsibility to question any orthodox view "But the problem is, they are not giving all the facts, which means they are misleading some and giving others false." Ms. O'Neil said

Neville Hodgkinson, The *Sunday Times*'s science editor and the author of most of the stories, said the paper is serving the public interest by telling readers that serious scientists and researchers dissent strongly from the accepted view that H.I.V. causes AIDS.

⁸⁾ The phrase "whatever Duesberg's friends say" is an example of Maddox's tendentious journalism. It contains an innuendo that only Duesberg's friends raise questions about the right of reply. But questions about the right of reply are independent of whether one is a friend of Duesberg or not.

immunology at the State University of New York at Buffalo, think the virus could be one factor among many, but maintain an unbiased reassessment is urgently needed.

"Unfortunately," Cunningham says, "an Aids 'establishment' seems to have formed that intends to discourage challenges to the dogma on one side and often insists on following discredited ideas on the other."

... Most of the signatories, such as Dr. Henk Loman, professor of biophysical chemistry at the Free University in Amsterdam, deplore the neglect of non-HIV lines of research...

Many of the scientists believe the fight against Aids was derailed by a flaw in reasoning over HIV in which "the hypothesis itself got incorporated in the definition of Aids." as Dr. Kary Mullis, winner of last year's Nobel prize for chemistry, puts it. When people fall sick and HIV is present or thought to be present, it is called Aids; when HIV is not present, it is called something else...

Thus did the *Sunday Times* keep informing its readers of the existence of a dissident group.

Root-Bernstein in The Scientist. On 4 April 1994 *The Scientist* printed an article by Robert Root-Bernstein entitled "Agenda for U.S. AIDS Research Is Due For A Complete Overhaul". The article started on the front page and extended over three pages inside the journal. Among other things, Root-Bernstein asserted:

An example of something we thought we knew, but did not, is that the human immunodeficiency virus (HIV) is the direct cause of T-cell killing in AIDS. Even such formerly stalwart proponents of this notion as Anthony Fauci and Robert Gallo now admit that this is not the case. Virtually all HIV research is now focused on finding "indirect" mechanisms by which HIV may cause immune suppression.

We also thought we knew that HIV alone is sufficient to cause AIDS. But such researchers as Luc Montagnier, Shyh-Ching Lo, Joseph Sonnabend, and many others - including me - now believe that co-factors are necessary and, therefore, that HIV by itself cannot cause AIDS.

We used to think we knew that everyone is at equal risk for HIV and AIDS, and that a heterosexual epidemic was inevitable. But the epidemiology of AIDS has yet to prove consistent with that view...

We thought we knew that people in all AIDS risk groups proceed to AIDS at the same rate following HIV infection, but this also has turned out to be untrue...

We thought we knew that HIV always precedes immune suppression in people who develop AIDS. But many studies show that lymphocyte counts are as low in some HIV-negative gay men, intravenous drug users, and hemophiliacs as they are in nonsymptomatic HIV-positive people - and sometimes lower..

Root-Bernstein concluded his article with the admonition:

A diversity of opinion and of research has never hurt science. Dogmatism and politically activated programs often have. The AIDS task force can foster one or the other, but not both.

I urge people to compare this admonition with the reactions of some establishment scientists, who have tried, so far mostly successfully, to keep reports questioning the establishment dogma about HIV out of the mainstream press. Sometimes they give as reason that such questioning presents a danger to public health.

A divisional meeting of the AAAS. On 21 June 1994, the Pacific Division of the American Association for the Advancement of Science (AAAS) sponsored a meeting - symposium - in San Francisco, to address: "The Role of HIV in AIDS: Why There is Still a Controversy." The symposium was organized by Charles Geshekter, Professor of History at California State University, Chico. The symposium and the list of speakers was approved by the Executive Committee of the Pacific Division, and announced in the 25 January 1994 Pacific Division newsletter. The symposium took place, despite pressure on the AAAS in May 1994, by *Nature* and by some scientists not to allow this symposium, or to change its thrust, for instance in the article "AAAS criticized over AIDS sceptics' meeting" (*Nature* 369, 26 May 1994, p. 265).

- *Nature's* article started: "The American Association for the Advancement of Science (AAAS) has come under fire from US AIDS researchers and public health officials for its sponsorship of a meeting in San Francisco next month of which speakers will dispute the link between HIV and AIDS ... But as criticism of the line-up mounted, AAAS executive officer Richard Nicholson indicated that the session might be called off. 'All options are still open, including cancellation', Nicholson said on Monday."

- *Nature* quoted Bernie Fields, professor of microbiology at Harvard Medical School: "This is a real fringe of people surrounding Peter Duesberg who have been saying these things for a while now. AAAS sponsorship makes it sound like a real issue when it's not. It think it's a disgrace."

- *Nature* quoted David Baltimore: "This is a group of people who have denied the scientific facts. There is no question at all that HIV is the cause of AIDS. Anyone who gets up publicly and says the opposite is encouraging people to risk their lives."⁹⁾ However, *Nature* did not specify which "scientific facts" are "denied". Furthermore the expression "group of people" is rather vague, and is sweeping in its characterization possibly involving anyone who talks to Duesberg. Hence the first sentence quoted above is defective on several counts. In itself this sentence represents unscientific behavior and tendentious journalism, both on the part of Baltimore and on the part of *Nature*.

- *Nature* also quoted scientists from the Bay area: "Michael Ascher, of the California Department of Health Services, and Warren Winkelstein, of the University of California at Berkeley, have written to the AAAS journal *Science* questioning the AAAS sponsorship because 'some of the views to be expressed ... have potentially serious adverse public health consequences.'" (For more on Ascher and Winkelstein, see the next section.)

Subsequently, the AAAS meeting itself was not covered by *Nature*. A fortiori, *Nature* did not report the reasons some scientists gave for questioning that "HIV is the cause of AIDS", so *Nature's* readers are not given evidence on which to base an informed or independent judgment. Thus does *Nature* manipulate its readers.

Criticisms similar to those in *Nature* were made in the *San Francisco Chronicle* under the tendentious headline "AIDS Rebels Try to Steal Show: But Scientists Stymie Plan By Mavericks Who Deny HIV Link" by David Perlman, 26 May 1994. No one was trying to "steal" anything. Furthermore, calling "rebels"

⁹⁾ Kary Mullis deals with this quote in his California *Monthly* interview. What is a "fact" for Baltimore (of Imanishi-Kari fame) may not be a fact at all. One of the criteria of scientific standards is the ability to tell the difference between a fact, an opinion, a hypothesis, and a hole in the ground.

scientists who raise questions and have gone through the proper AAAS channels to organize their meeting, documents how the S.F. *Chronicle* manipulates its readers. Perlman's article started: "Blindsided by a small band of AIDS gadflies, America's largest scientific organization moved yesterday to avoid sponsoring a one-sided spate of oratory over the causes of the global AIDS epidemic." Among other things, Perlman reproduced the criticism from Ascher and Winkelstein.

The AAAS symposium was subsequently covered by Perlman in the *San Francisco Chronicle*.¹⁰⁾ It also received a 500 word notice "Uncertain for sure" by Susan Gerhard in the *San Francisco Bay Guardian* (6 July 1994, p. 32), which I found perceptive and sharp. She had been alerted to the meeting via Celia Farber's interview with Kary Mullis in SPIN. Gerhard wrote: "While it may be OK for me and most of my friends to believe in science - we have to, as we're not equipped with our own labs and sets of petri dishes - we expect more than blind devotion from the men and women of Reason. It was truly frightening to watch how, with a few pointed questions, they [the HIV critics, Duesberg and Mullis in particular] made that religion - my religion for many of the last 10 years - look as arcane as the Vatican's." Gerhard concluded her piece with the comment: "The HIV critics didn't have answers; they just had questions. But from the looks of this public gathering, and the questions that cropped up from its audience of laypeople and pros, their position of oppositional prying has been more welcome outside science than within it." Gerhard's article is one among other pieces of evidence that the parallel local press (derived from the counterpress of the sixties) is beginning to warm up to the issue of HIV and the credibility of the scientific establishment with respect to HIV.

Neither the NIDA meeting nor the AAAS meeting were covered by *Science* and the *New York Times*. If this surprises you, come to the front of the class because you haven't been paying attention.

The AAAS symposium represented many views about the relationship of HIV and AIDS, including those who question the causality such as Duesberg and Kary Mullis; the UC Berkeley Molecular Biologist Harry Rubin, who is an agnostic as to the role of HIV in causing AIDS; and supporters of the establishment line, such as Jerold Lowenstein of the UC Medical Center in San Francisco.

An extensive account of the AAAS symposium is available on the electronic nets. The printout I was given has about 30 pages, and includes an article by John Lauritsen: "Truth is Bustin' Out All Over: HIV Symposium at AAAS Conference." This account is available from laurit@panix.com It includes a more detailed account of the pressures put on the AAAS to cancel the symposium or to change its thrust, and it includes extensive direct quotes from the participants. Here is a sample quote from Kary Mullis, about the (non)existence of a scientific reference giving evidence whether HIV is the probable cause of AIDS:

I assumed there must be such a reference, and that there might be a controversy over who got credit for it, because I was under the impression that Gallo and Montagnier might have been fighting over who had first shown that HIV was the cause of AIDS .. I went back over their early papers, and found that neither of them had shown that HIV was the probable cause of AIDS.

I was running into a lot of people who were doing AIDS research, and every time somebody would give a talk, I'd go up to them afterwards and ask politely:

¹⁰⁾ "AIDS Rebels Try to Steal Show", 26 May p. A 14; "AIDS Symposium Changes Line Up", 7 June p. A 15; "S.F. Science Conference to Debate Cause of AIDS", 18 June p. A6; "Controversial AIDS Theories Debated at Forum in S.F.", 22 June p. A7

Who I should quote - was there a paper or a review that I should quote for that statement? It seemed like a perfectly reasonable question to ask. Some people took offence. Most people said the same thing: "But everybody knows, you don't have to prove it." Well, you know, everybody knows the sequence [of a certain chemical], but they also know where to find the references.

And I started getting uncomfortable with the fact that nobody seemed to know. So I changed the question to, "When did you, personally, become convinced that HIV is the probable cause of AIDS? (I mean, you're working on it as though you are.) [laughter] What papers did you read?" And they'd say, "I've got it in my office." And I'd say, "Would you send me the titles, so I can look them up. "... [They never did.]

The Lauritsen account on the e-nets reproduced a telling exchange between Jerold Lowenstein and some scientists questioning the role of HIV in causing AIDS. Lowenstein's talk was entitled "The medical and scientific evidence for HIV being the cause of AIDS". Harvey Bialy raised a question:

BIALY. ...And finally, why are hemophiliacs not dying of AIDS? They were all infected ten years ago or more - way long enough to have exceeded the latency period. Half the hemophiliacs in the United States should be dead or dying of AIDS now, and yet it's less than 12%. You need to explain that. Please!

LOWENSTEIN. I don't see why I need to explain that. Hemophiliacs are dying of AIDS.

BIALY. The HIV-AIDS hypothesis postulates a ten year latent period between infection and disease. That means that if you have 16,000 people with the infection, after a ten year period, approximately half of them should have the disease. But only 10-12% have the disease. This is a discrepancy! How do you explain it?

LOWENSTEIN. How do you explain the 10-12% who do die? (groans from the audience)

BIALY. What are they dying of? They're dying of the same diseases that hemophiliacs always die of, but now they're called "AIDS" because they've been diagnosed as having HIV antibodies.

DUESBERG. Those hemophiliacs are not immortal. [laughter]

BIALY. What is your evidence that HIV is destroying T-cells by infection? I would love to see it. I've been waiting ten years for it.

[no response from Lowenstein]

Harry Rubin made several points, including some technical points about retroviruses and some of the history of these viruses associated with leukemia in chickens. As he said (quotes taken from the Lauritsen account on the e-nets):

Notice, I used the words, "associated with". They were given the name, Avian Leukosis Virus, indicating they cause a type of leukemia in chickens, along with many other symptoms, incidentally. Now what I learned from my own work - I developed the way of assaying these viruses in culture so they could be worked with, in a fairly expedient manner - is that these leukemias could and would occur in the absence of the retroviruses.

...

Every cell in the chicken is infected, and every cell is constantly producing virus, but even then...only 15% of those chickens, who were congenitally infected, developed the leukosis. In spite of these findings, these viruses are still called Leukemia or Leukosis viruses, as they have been for 85 years. The assumption is

made that they are the sole, or at least the prime, cause of the disease in chickens...

One of the things I want to point out is the tricky business of naming a virus. Naming something HIV, Human Immunodeficiency Virus, Avian Leukosis Virus, Avian Myelocytosis Virus - all of those names fix in the minds of those who use them, or work with them, that this is the proof.

Rubin also addressed the "political problem":

What's transpired in the development of this symposium is illustrative of the difficulty of making a critical scientific analysis of the AIDS problem. It's really more of a political than a scientific problem...

Now I've come to my point about the politicization of this issue. In 1988 the American Foundation for AIDS Research (AmFAR) convened a meeting in Washington, DC, which had the obvious purpose of silencing Peter Duesberg. As I had discussed the matter with Peter on many occasions, he asked me to join the meeting even though he knew I was an agnostic about the role of HIV - more like Erasmus than Martin Luther I reluctantly agreed, feeling I could play the role of an intermediary. How naive I was! I did some extensive reading before the meeting, and a lot of questions occurred in my mind, that I thought needed discussion. When I raised those questions at the meeting, I got the response you might expect from a bunch of fundamentalists confronted with someone who questioned the virgin birth. [laughter] For example, Anthony Fauci interrupted me at one point, in a rage, saying how could anyone doubt the compelling role of HIV, when there was this HIV-infected baby, who had never been exposed to other viruses, bacteria or drugs, and developed AIDS. Well, I had no answer. If I did, I couldn't get up, he was so mad. Well, I later learned that the mother of that baby was an intravenous drug user who had all sorts of health and nutritional problems.

Rubin addressed the circularity of the definition of AIDS:

Subsequently after that meeting, at a little social gathering, I had a discussion with a medical corps major (I won't mention any names) who was the Army's leading AIDS specialist. He told me that he had seen AIDS cases with Kaposi's sarcoma in recruits, a condition then commonly associated with AIDS, at least in homosexuals. He told me that some of these cases were AIDS. And I asked him if they differed clinically, from the other six cases [which were not AIDS]. He said no, they didn't differ clinically at all, but they had antibodies to HIV. So I realized then I was dealing with a self-fulfilling prophecy. If there are HIV antibodies when you have Kaposi's, then it's AIDS, and if no antibodies when it's Kaposi's, then it's not AIDS, just Kaposi's. No wonder there's such a strong association between the virus and AIDS, if the diagnosis is based on the presence of the virus...

Finally, Rubin brought up Duesberg.

In closing, let me say a word about Peter Duesberg, who has been pilloried from post to post in the press, as you have seen. I made it clear that I do not go along with his total rejection of a role for the virus. I will say, that if it were not for Peter Duesberg, there would be no one raising questions at all, including me. [applause for Duesberg] So while I continue to disagree with him, and find him a pain sometimes [laughter], I respect what he's done, and I might say that he's done it at enormous sacrifice to his reputation and to his career [applause]

§5. A press release on a "Commentary" in *Nature*

A piece "Does drug use cause AIDS?" by M. S. Ascher, H. W. Sheppard, W. Winkelstein Jr. and E. Vittinghoff, was published in the *Nature* issue of 11 March 1993.¹¹⁾ This piece was published as a "Commentary". About a week before publication, *Nature* issued a press release concerning this piece, headlined: "DRUG USE DOES NOT CAUSE AIDS." The press release concluded: "These findings seriously undermine the argument [sic] put forward by Dr. Peter Duesberg, of the University of California at Berkeley, that drug consumption causes AIDS, and instead provides [sic] strong support for the hypothesis that HIV causes the disease." Numerous members of the press started calling Duesberg to get his comments on the forthcoming article in *Nature*, but the article had not been made available to Duesberg. Despite the fact that the press release was marked "Embargoed for release 6:00 pm EST, Wednesday, March 10, 1993", Duesberg told me that on 4 March he got several calls from journalists, including one from the *New Scientist* in Washington. Duesberg told these journalists that he could not comment on a piece he had not seen. The *New Scientist* then faxed him a copy on 4 March. He received a copy from *Nature* only on 9 March. Thus *Nature* and the authors of the article use the media to manipulate public opinion before their article had been submitted to scientific scrutiny by other scientists (other than possible referees), and especially by Duesberg who is principally concerned.

My question, really for all of us, is the following.
Why is it necessary to insistently call on dissenters
from the mainstream theory to abandon their dissent
and to join ranks with those who believe that HIV,
and only HIV, causes AIDS?

A misrepresentation in *Nature's* press release. Among other things, *Nature's* press release misrepresented how the sample of 1,034 men for the purported study was determined. The press release stated: "These were selected by random sampling of San Francisco households regardless of sexual preference, lifestyle, HIV status or drug use." But a qualification from the "Commentary" itself was left out in the press release. Indeed, the "Commentary" actually referred to a "random sampling from neighborhoods of San Francisco where the AIDS epidemic had been most intense before 1984." Thus the press release suppressed the additional information that the sampling came from a definite segment of San Francisco households rather than random San Francisco households.

The "Commentary" further claimed: "Participants were recruited without regard to sexual preference, lifestyle, or HIV serostatus (not known at the time), and thus constitute a representative cross-section of men in this community." However, an area where the "epidemic had been most intense" might already have a preponderance of people in the major risk groups. This was indeed the case. The sample had a built in selection in the direction of "sexual preference" and drug use. For instance, about 4/5th of the "random sample" classified themselves as homosexual or bisexual.

¹¹⁾ *Nature* identifies the authors as follows: Michael S. Ascher and Haynes W. Sheppard are in the Viral and Rickettsial Disease Laboratory, California Department of Health Services, 2151 Berkeley Way, Berkeley, CA 94704. Warren Winkelstein Jr. and Eric Vittinghoff are in the Department of Biomedical and Environmental Health Sciences, School of Public Health, University of California, Berkeley. CA 94720.

As for HIV status and drug use, about 1/4th of the "random sample" had AIDS-defining diseases (from the CDC list). Because of the CDC circular definition, Ascher et al. identified 215 AIDS patients, and reported that 100% of the AIDS patients were HIV positive. However, an independent re-analysis of the data brought to light another 45 patients with AIDS-defining diseases, but HIV negative, and thus showed that 83% of the patients with the AIDS defining diseases were HIV positive. On the other hand, 100% of the AIDS patients had used nitrites. Furthermore, 84% were also on AZT. Finally, homosexuals used twice as many recreational drugs as did the heterosexuals (marijuana not included).¹²⁾

WHAT THEY SAID

At a meeting sponsored by the National Institute on Drug Abuse (NIDA) on the toxic effects of nitrite inhalants, 23 and 24 May 1994, Rockville MD:

... according to Jay Paul of the University of California at San Francisco, the highest risk for AIDS involves the use of poppers and four other drugs. And Lisa Jacobson of Johns Hopkins University (Baltimore, MD) reported that 60-70 percent of the several thousand gay men at risk for AIDS who participate in the Multicenter AIDS Cohort Study (MACS) have used nitrites.

In addition, those favoring a more direct role of nitrites in AIDS pointed to data from the MACS showing that HIV-negatives had, on average, 25 months of nitrite use, HIV-positives had 60 months of nitrite use, and AIDS patients had over 65 months of nitrite use - an apparent dose-response relation. When asked whether there was even one gay AIDS case in the cohort who had not used drugs, a somewhat surprised Jacobson replied, "I have never looked at the data in this way "

[Reported in the article "NIH reconsiders nitrites' link to AIDS" by John Lauritsen, *Biotechnology*, 12 August 1994.]

The independent re-analysis documented other problems in the Ascher et al. "Commentary", invalidating the statement made by Ascher et al. (p. 104, column 2): "However, the population-based SFMHS provides a rigorously controlled epidemiological model for the evaluation of aetiological hypotheses." For instance: "The Commentary, however, lacked the rigor of a scientific paper. No detailed description of methods was given, numbers were 'adjusted' using unexplained techniques, and graphs were presented without error bars, among other critical problems. Moreover, the analysis itself suffered several fatal flaws, such as using a circular HIV-based definition of AIDS, failing to quantify total drug use over time, and ignoring drug-use-differences between HIV-positive and -negative men."

The article "Debunking Doubts That H.I.V. Causes AIDS", by Gina Kolata in the *New York Times* (11 March 1993, p. A 11) followed the *Nature* press release in reporting incorrectly "a group of 1034 randomly selected single men who lived in San Francisco and were 25 to 54 years old in 1984, when the study began" The *New York Times* also reported uncritically the misleading data from the Ascher et al. "Commentary". Thus did the *New York Times* propagate the misinformation of the press release and of the "Commentary".

¹²⁾ See two articles: "Can epidemiology determine whether drugs or HIV cause AIDS?" by Peter Duesberg, *Aidsforschung* vol. 12 (1993) pp. 627-635; and "HIV as a surrogate marker for drug use: A re-analysis of the San Francisco Men's Health Study" by Bryan J. Ellison, Allen B. Downey, and Peter H. Duesberg, *Genetica*, special issue, Fall 1994

I take no position here on the relative merits of the AIDS virus hypothesis or the AIDS drug hypothesis (in whatever form they may be formulated). I do take a position against the announcement of purported scientific results via superficial and defective press releases, and before scientists at large have had a chance to evaluate the scientific merits of such results and the data on which such results are purportedly based.

Some other scientists reacted negatively to *Nature's* publication. For example, Richard Strohman wrote a letter to the editors of the *San Francisco Chronicle*, which had rushed into print about the *Nature* article. Strohman's letter was never printed, and I quote it in full:

Letter to the editors of the San Francisco Chronicle by Richard Strohman (sent]] March 1993, never printed). I am dismayed by your treatment of the AIDS-drug hypothesis (4/11/93). As a piece of reporting it is a masterpiece of scientific ignorance. First, in the article in question all conclusions, dutifully reported by Mr. Perlman, were drawn from hearsay. It is hearsay because the article is not a scientific paper that survived any rigorous review process; it was instead part of what is called "scientific correspondence" that gets by with often cursory review by journal editors. Second, as a result of lack of thorough review there is no detail given on methods used to collect data. Third, without details on methods we can not evaluate the data itself, never mind conclusions drawn from that data. Thus, all standards of real science are violated. What remains is only "scientific correspondence", at best a mechanism for developing opinion or debate. In the mainstream of science or in a court of law it would be thrown out as hearsay evidence. Instead of asking why the authors of this very "important" study did not take the trouble to submit their work through normal channels, but instead chose the less rigorous process, the Chronicle chooses to treat the work as valid, proven, information. The Chronicle owes all its readers, and especially all HIV+ people a profound apology.

The authors of the "Commentary" in *Nature* ended their piece as follows:

The energies of Duesberg and his followers could better be applied to unraveling the enigmatic mechanism of the HIV pathogenesis of AIDS. To this end, we have proposed an alternative model [14,15] - "based on HIV signalling at CD4 cells. This model and others are now being evaluated, and we cordially invite Duesberg to participate in this endeavour. [1 omit the footnotes 14 and 15.]

I find it presumptuous and objectionable for scientists to tell others where energies "could better be applied". Scientific standards as I have known them since I was a freshman at Caltech require that some energies be applied to scrutinize data on which experiments are based, in documenting the accuracy of the data, its significance, its completeness, and to determine whether conclusions allegedly based on these data are legitimate or not.

Especially in connection with the last paragraph telling scientists where to apply their energies, Strohman also wrote an open letter to Warren Winkelstein, one of the authors and a colleague at UC Berkeley (*The Daily Californian*, 1 April 1993).

Extract from Strohman's open letter to Winkelstein. *Dear Warren, The HIV-AIDS hypothesis is a crucial problem that must be either discarded or proven. We all agree to that. As stated in your recent Nature article, scientists still do not know how HIV works, and until that time we must all strive to do what we can to find a solution. Your own work, has striven to develop a strong correlation between HIV and AIDS, but you agree that correlation does not establish cause. More than*

90% of a multibillion dollar budget is dedicated to finding a molecular link between the virus and immunosuppression, with still no definitive proof after more than 10 years. Meanwhile, there are some scientists, myself included, calling for approaches to AIDS other than the near-monolithic HIV theory. Perhaps other factors are involved; goodness knows, there certainly is convincing evidence for co-factors, and for Peter Duesberg's theory that AIDS is caused by drugs alone. The drugs he mentions most often are recreational drugs taken by some, but not all, gay men, and intravenous drug addicts. In addition, AZT, which is prescribed to deal with bacterial and viral infections, is known to be cytotoxic to human cells, and in itself could be the culprit.

My question, really for all of us, is the following. Why is it necessary to insistently call on dissenters from the mainstream theory to abandon their dissent and to join ranks with those who believe that HIV, and only HIV, causes AIDS? You yourself issue such a call in your recent Nature article (as quoted now in newspapers all over the country; SF Chronicle of 3/11/93). This is not how science is supposed to operate. It is supposed to be pluralistic; it is historically best when dissent is open and wide; results come more quickly when support is given not only to those who follow the major paradigm but also to those who have reasoned the unpopular approaches...

Winkelstein answered Strohman's letter in *The Daily Cal* of 13 April 1993, stating in part: **Extract from Winkelstein's answer to Strohman.** *Your assertions regarding alternative approaches and dissenting opinions is best answered by quoting what we actually wrote in the Nature commentary: "The main purpose of the cohort studies conducted in San Francisco and elsewhere has been to look for associations of environmental or behavioral factors with the development of AIDS. Had any factor other than HIV infections been found, it would have been reported immediately..[elision by the Daily Californian. In his reply, Winkelstein also repeated the paragraph I have quoted from his article, about where the energies of Duesberg and his followers could better be spent. He then added the following:*

In a New York Times article reporting the content of our Nature commentary, Dr. Jerome Groopman a distinguished medical scientist, is quoted as follows: "Science keeps an open mind at all times, but there comes a time when you have to declare that the earth is not flat. It is incumbent on those who reject HIV to come to terms with this."

Thus Winkelstein and the "distinguished medical scientist" Groopman equate those who question the HIV hypothesis with flat-earthers. I ask readers to evaluate Winkelstein's scientific standards in light of:

- the criticisms to which the "Commentary" with Winkelstein as co-author was subjected in the article "HIV as a surrogate marker for drug use: A re-analysis of the San Francisco Man's Health Study" (see footnote 12);

- the challenges to the HIV-AIDS hypothesis by a number of scientists, including those mentioned in this article;

- the questions which have been raised at the AAAS and NIDA meetings concerning drug use as a possible cause of some AIDS-defining diseases.

The above-mentioned article critical of the Ascher et al. "Commentary" was submitted for publication in *Nature*, but rejected. As we have already mentioned, *Nature's* editor John Maddox expressed his position clearly about the refusal to publish: "...the right of reply has to be modulated by its content." (*Nature* 363,13 May 1993, p. 109.) Neville Hodgkinson reported *Nature's* refusal to publish these criticisms of the Ascher et al. paper in the *London Sunday Times* (1 May 1994),

under the title: "Poppers and Propaganda - Censorship is blocking the debate vital to discovering the truth about Aids". He wrote that

repeated efforts by Duesberg and others to reply to the attacks on him have been frustrated by John Maddox, the journal's editor. Their latest effort, re-analyzing data from an eight-year study of homosexual men in San Francisco, was rejected two weeks ago. It reaches conclusions that directly contradict those in the original article. Almost 100% of the men who died had used poppers, and there was a much higher level of general drug use (including heroin and cocaine) among HIV positive men than their HIV-negative counterparts ... To refuse Duesberg and colleagues any right of reply is an act of censorship on one of the most important scientific debates of our time. Hodgkinson also gave the more general evaluation:

A kind of collective insanity over HIV and Aids has gripped leaders of the scientific and medical profession. They have stopped behaving as scientists, and instead are working as propagandists, trying desperately to keep alive a failed theory

Thus the scientific community, and especially the leaders of science, have exposed themselves to a loss of trust in the community at large.

This article is the first of a two-part series written by Professor Serge Lang dealing with the issue of HIV and AIDS. In the next issue, Professor Lang will discuss the current funding of AIDS research and its consequences.
