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[Note: This article is posted for Stefan Lanka, who gives permission for non-commercial copying or distribution. Lanka does not presently have an Internet connection; however, comments made publicly will be relayed to him. An earlier version of the article ("Fehldiagnose AIDS?") appeared in a German monthly, Wechselwirkung, Aachen, December, 48-53. The present article was translated from the German by Volker Gildemeister.]

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HIV -- reality or artefact?

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[Virologist Dr Stefan Lanka asks a number of searching questions: why, unlike other viruses, has HIV never been isolated? Is it possible to have an antibody test for a virus that cannot be isolated? Does HIV exist at all? His answers to these questions explain why aids research has no scientific basis. -- Wechselwirkung editor]

An error can never become true however many times you repeat it.
The truth can never be wrong, even if no one ever hears about it.
-- Mahatma Gandhi

For the past 10 years or so it has been the accepted wisdom that the human immuno-deficiency virus, HIV, causes AIDS. It supposedly occurs in many body fluids, and its transmission especially in semen and blood to a new host, triggers a slow but inexorable progression to AIDS and ultimately death. To infect another cell, HIV must at some stage in its life cycle exist as a separate and identifiable entity.

What has been ignored and kept from public awareness is, that there has never been a workable HIV test and that the definition of 'positive' has always changed according to the views of different organisations dealing with it, changed also according to the kind of tests used and changed from laboratory to

laboratory performing the tests:

... Its techniques have not been standardised, and the magnitude and consequences of interlaboratory variations have not been measured. Its results require interpretation, and the criteria for this interpretation vary not only from laboratory to laboratory but also from month to month .."1

The dispute over who discovered HIV,2 was a distraction from the question of whether the virus actually exists at all. The public was impressed that if a President and a Prime Minister3 had to meet to resolve attribution, then the thing they were negotiating about must be real.

In 1993 a research group from Perth, Australia succeeded in publishing a paper on the HIV test.4 Since then anybody could have read for him or herself that no AIDS test could ever work, because HIV has never been isolated nor even shown to exist. Since AIDS research and the media have largely ignored any critique of HIV=AIDS, especially the essential question of whether HIV really does exist, it is time to call again for a reappraisal of the whole HIV/AIDS hypothesis. In going back to the origins of HIV virology and telling the HIV story, a view will be presented which will make clear that HIV itself, the very object of this Manhattan Project of modern medicine, AIDS research, does not exist.5

A little virology

Viruses are essentially just packages of genetic information enclosed in a coat which consists of proteins. They can reproduce themselves only by infecting a suitable host cell and appropriating the chemical machinery they find there. The proteins making up the viruses are characteristic for each species of virus. Apart from enveloping and transporting the genetic information intact, the composition of proteins for a given virus results in a specific shape for the virus particle.

This much is generally known. Less well-known is the existence of other particles which look like viruses but aren't, and are nonchalantly referred to as "virus-like" particles. Such particles are far from rare, found, for example, always in placentas, and very frequently in the artificial environment of laboratory cell cultures. They have served to muddy the waters considerably as far as AIDS research is concerned, because particles just like these have been called HIV. To date, none of these has been characterised and shown to exist as an entity which one may justifiably call a virus.

One root of the belief in the AIDS virus

In classical theory DNA encodes the genetic material of heredity, which is then transcribed into messenger RNA which in

turn specifies the assembly of amino-acids to construct the proteins of all living beings. In 1970 an enzyme (biological catalyst) was discovered in extracts of certain cells which was capable of converting a molecule of RNA into DNA. This was a revolutionary discovery, because it overturned a fundamental tenet of molecular genetics, namely, that the flow of information was strictly one-way and never reversed. It had hitherto always been thought that DNA was transcribed (converted) into messenger RNA and that the reverse process from RNA to DNA was impossible. The enzyme responsible became known as reverse transcriptase⁶ and a lot of new myths arose.

An error of the past: cancer caused by viruses. It was believed that the new enzyme was a marker for a virus, because the cells in which it was detected, and which were used to study cancer,⁷ were thought to have become cancerous through being infected by a virus. New to the idea of cancer viruses⁸ was that nucleic acid, when in the form of RNA could be converted into DNA by the enzyme, thus providing a mechanism for viral nucleic acid to be inserted anywhere in the chromosome of the cells.⁹ These "new" viruses became known as retroviruses.¹⁰ The insertion of certain retroviral genes was thought to trigger cancer. The idea that these postulated viruses caused cancer quickly became "hot news" the world over, but did not survive investigation¹¹ and other explanations were sought.¹² The theory did not predict or explain the dramatic increase in cancer cases, cancer could not be shown to be transmissible, nor could it suggest any remedy in the form of a vaccine.¹³ Interestingly, the spread of cancer viruses was blamed on homosexuals, prostitutes and black people, just as AIDS came to be 13 years later.¹⁴

Whenever and wherever reverse transcriptase activity was detected it was rashly assumed that retroviruses were at work. This turned out to be a grave error, because it was later found that the enzyme occurred in all living matter, proving that reverse transcriptase activity had nothing to do with retroviruses per se.¹⁵

Repetitive elements

Further research showed that at least 10% of mammalian DNA was composed of repetitive sequences which were referred to as "nonsense genes", parts of which, nonetheless, were described as "retroviral genes". They exist in their hundreds if not thousands. Some of them can even replicate independently and jump within and between chromosomes, and for this reason became known as retrotransposons. In the laboratory they can be made to migrate, and when this happens reverse transcriptase is invariably detected, which underlines the fact that reverse transcriptase activity has nothing to do with retroviruses as such.¹⁶

LAV, HTLV-III, HIV and all that

Because all this was already well known in 1983 it is incomprehensible that Francoise Barre-Sinoussi, a member of Montagnier's group, as well as Gallo's group itself in 1984, claimed to have discovered a new virus, when all they did was to demonstrate reverse transcriptase activity, and to publish photographs of cellular particles without proof that they were viruses. They could neither isolate them nor show that they were responsible for creating the observed reverse transcriptase activity nor the tissue abnormalities in which they were observed.¹⁷ They concluded: "the role of the virus in the aetiology of AIDS remains to be determined".¹⁸

What makes a virus new?

The isolation and purification of a real virus is a straightforward matter, because unlike cells, viruses of one species are always of the same size and shape, and can be readily separated from other cell components by standard techniques. A control experiment is to try an isolation with putative non-infected material in exactly the same way as the supposedly infected material. Nothing should be isolated in this case.

To identify a virus definitively, a first and simple step is to photograph isolated particles of it in an electron microscope, and they must look like the viral particles observed in cells, body fluids or cell cultures to distinguish them from other cellular particles which look like viruses, but are not. Proteins making up the viral coat must then be separated from each other and photographed. This produces a pattern which is characteristic of the species of virus. A similar separation and identification procedure must be gone through for the DNA or RNA of the virus. Only after the viral proteins and nucleic acid components have been properly identified, is it legitimate to speak of a new virus.

No evidence for the existence of HIV

Such evidence has up till now never been produced for HIV. No photograph of an isolated HIV particle has ever been published nor of any of its proteins or nucleic acids. No control experiments as mentioned above have been published to date. What has been shown are photographs of virus-like particles in cell cultures, but none of isolated viruses, let alone of a structure within the human body having the shape ascribed to HIV. What the whole world has seen are models representing HIV with dish aeriels, said to be receptors with which the virus attaches itself to cells.

The existence of HIV is inferred from an antibody test, but how this is supposed to work, when the virus has never been shown to exist and obtained free of contaminants, remains a mystery.

The AIDS Test

Let us recall that the AIDS test is supposed to detect antibodies produced by the immune system in response to infection by the virus. This is routinely done by layering proteins ostensibly from the virus in the wells of a plastic rack and adding blood serum to be tested to each. If antibodies are present, they bind to the proteins, and when this happens sophisticated staining procedures can make this visible. But, because no proteins which are viral and free from contaminants, have ever been obtained, one cannot be sure what the antibodies are that bind to the proteins.

This is the crux of the problem facing all HIV (AIDS) tests. The inability to isolate a viral entity, and to obtain proteins from it which are free from proteins derived from the cells in which the alleged virus is grown, reduces the evidence for the existence of HIV using antibodies to arguing in circles.

Why no HIV test is ever able to work

It is consequently quite illogical to claim that a positive test results from prior contact with the virus.¹⁹ Because various ill-characterised proteins are involved, every test kit manufacturer applies his own arbitrary criteria, and no two kits ever give the same result. It makes no difference that learned committees set standards to decide which tests should be regarded as "positive" and which not, because this merely skirts round the problem, namely, to what are antibodies actually being detected in the AIDS test? It is of no help that nowadays "second" and "third" generation tests exist using synthetic proteins which give greater consistency and comparability, because only by an unscientific stretch of the imagination are they viral proteins!

Neither fudging the true identity of the proteins, nor advocating two kinds of test -- reassuringly but mistakenly described as "search" and "confirmatory" tests -- resolves this difficulty.

The ELISA test is used to screen for antibodies, which is "confirmed" by the more specific Western Blot. The dilemma cannot be stated more poignantly than by quoting from the leaflet accompanying one such test kit:

The test for the existence of antibodies against AIDS-associated virus is not diagnostic for AIDS and AIDS-like diseases. Negative test results do not exclude the possibility of contact or infection with the AIDS-associated virus. Positive test results do not prove that someone has an AIDS or pre-AIDS disease status nor that he will acquire it.²⁰

Quite!

The direct proof of HIV Some HIV researchers have tried to circumvent the problem by pointing to something called "direct" evidence for the virus. All that this meant, though, was arbitrarily selecting a protein of a certain size which happened to coincide with that shown in HIV models. The delusion of such "evidence" was illustrated when the protein later turned out to be of human origin!²¹ How the genetic information of HIV was manufactured through ...

Despite this deplorable state of affairs the majority of AIDS researchers still cling to the authenticity of HIV, because a genetic sequence for it has been published. Moreover, genetic procedures now exist, which, unlike antibody tests, attempt to identify the presence of HIV more or less immediately, instead of only weeks later when antibodies are formed. The fact that the genetic tests (PCR)²² do not give the same results as the antibody tests is simply ignored.

Since no virus has been isolated, it follows that no nucleic acid has been isolated from it either. Complicated procedures are even so described in the literature, at the end of which something is produced which is called the nucleic acid of HIV.²³

...a test tube

HIV and its DNA can allegedly be made by the "bucketful",²⁴ but under very surprising conditions which, inter alia, entail the use of extracts from plants and other oxidising chemicals, which could not possibly exist in vivo. Immortalised cell lines devised (and later patented) by the Montagnier and Gallo groups are co-cultured with extracts from human cells or the cells themselves. At the end of it all HIV itself is not actually obtained -- only reverse transcriptase activity is shown to occur -- which is taken to imply that the DNA that is found, must have been viral in origin.

The real explanation of what happens is as follows. In the mixture of cell cultures and stressed human cells, RNA and reverse transcriptase come to be produced in large amounts, because the cells have been specially selected and treated to do this. The RNA is transcribed into DNA by reverse transcriptase, and long pieces of DNA are produced which are said to be viral DNA. In fact they are composed of unrelated pieces of expressed cellular RNA, transcribed into DNA and linked together by a process of "template switching" (a well-characterised property of reverse transcriptase).²⁵ This misleads ordinary researchers into believing that they have actually produced viral DNA.

It is said that this linear DNA is the free or the non-integrated form of HIV, which furthermore is said to be a unique feature of HIV, because a lot of detectable free linear DNA has not been suggested in any other models of retroviruses.

...and a selecting process

The resulting pieces of DNA are necessarily both shorter and longer than the "correct" length of HIV. Pieces corresponding to the "correct" length of HIV must be selected for size, because otherwise the purported DNA preparation would be a mixture of various lengths, which would violate a cardinal rule of virology that all nucleic acid of a particular virus be identical in size.

...and a detecting process

Having artificially prepared DNA pieces of uniform length, they are still not ready for presentation, because they consist of a mixture of all kinds of RNA fragments transcribed into DNA and thus cannot be shown to represent unique viral DNA. Accordingly, the mixture is subjected to a kind of lock-and-key detection process called hybridisation, whereby pieces of DNA are detected which complement more or less a probe of that which it is desired to be shown to have been prepared.

...and choosing a desired probe

Since no DNA from HIV existed to hybridise with the prepared DNA, Gallo and Montagnier simply used stretches of DNA from what they said was specific to HTLV-I, a retrovirus Gallo had earlier claimed to have discovered, and which they deemed suitable for this purpose. The DNA detected in this way was replicated and certain stretches of it cloned and declared to be the DNA of HTLV-III (later to be called HIV).

To summarise, the purpose of the exercise is to grow HIV, but it actually produces a mixture of different lengths of DNA, contrary to theory which says they should all be identical, and no virus at all. It is then claimed that the "correct" DNA has been prepared by finding certain strands in this heterogeneous mix by hybridising them with an HTLV-I DNA probe whose sequence is known and defined to be similar to HIV. However, non-hybridising strands of DNA should not be there at all, and the fact that they are, proves that just a rag-bag of endogenous DNA from the pool of repetitive elements has been prepared.

It follows that "HIV" DNA must just be a laboratory artefact constructed to a preconceived idea of what retroviral DNA should be, and this assessment does not even raise the question why no virus can be obtained, whatever the experimental conditions.

Gallo and Montagnier's cloned HIV DNA

One cannot help asking why no-one had not long ago spotted the flaw in the techniques employed by the Gallo and Montagnier

groups. After defining some segments of DNA to be "HIV"-specific, every researcher in the field worked exclusively with short, cloned sequences (never the whole strand) on the reasonable assumption that the original characterisation had been correctly performed. From the isolation and identification procedure described above, it follows that the resultant sequences vary widely from one preparation to the next, which sequence analysts misinterpreted as the legendary capacity of HIV to mutate. A computer simulated phylogenetic tree was constructed, which established precisely what its designer sought to prove.²⁶

Some history (I)

Perhaps one reason for this calamitous state of affairs is that HTLV-III was presented to the world as the cause of AIDS at a historic press conference on April 23, 1984 (a patent for an antibody test was applied for on the same day!), instead of making the evidence for it available beforehand, as correct science demands. The unholy hurry may be explained through the disagreement between the National Cancer Institute and the Centers for Disease Control (CDC) which favoured the French idea of the virus at the time. This opinion was published the very day before in a lengthy front page article in The New York Times in which the head of the CDC was quoted as saying that the French virus was the cause of AIDS.²⁷

(II)

Even so, one must admire Gallo's audacity, because using a similar technique he claimed in 1975 to have discovered the first human retrovirus (HL23), but which turned out to be nothing more than pieces of DNA from three different sources of contamination.²⁸ Nowadays, even an undergraduate would know that if you added DNA to a cell culture, part of the DNA would be incorporated into the cells without any virus being involved.

What does the AIDS test actually test for?

Since "HIV" has been shown to be a laboratory artefact it must be assumed that, when not just cross-reacting with other known antibodies, the "AIDS" test detects antibodies against proteins produced in the procedure itself. They must be of human origin because the cells used originated from leukaemic patients. Test positivity, logically, results from immunological contact with them. However, since positivity actually correlates with otherwise unrelated factors such as rheumatism and sun bathing, no specificity can be ascribed to the test.²⁹ Whether antibody positivity really correlates with disease as is commonly supposed, remains to be determined by a critical re-evaluation of the data.

Condoms, therefore, serve only to protect against venereal diseases and as contraceptives, and worse lull the user into a false sense of security by ignoring real dangers he may be exposing himself to.

Re-direction of AIDS research

AIDS research is therefore back at square one and not at Basic Science as suggested elsewhere.³⁰ The main players have since 1993 begun to slink off, arguing that the virus having mutated so much is now no longer detectable. AIDS has therefore to be explained "in the absence of further whole virus".³¹ Apart from the shortcomings of the antibody test, other misconceptions such as T-cell counting exist, which mean that the whole concept of AIDS needs to be completely revised.³² It must be shown that there is any point in renaming a collection of known diseases as AIDS, just because someone is positive in the antibody or genetic (PCR) tests. Leaving HIV out of the picture explains why the epidemiological projections, which years ago had forecast a world-wide epidemic, have been a complete failure. Africa in 1986 was held up as a dire warning of what would befall the Western world. There, AIDS was diagnosed by a combination of clinical conditions³³ such as chronic fevers, diarrhoeas, coughs and weight loss, all symptoms of the diseases of poverty, without testing for HIV antibodies.³⁴ It should hardly come as a surprise that an entirely different definition produced a different outcome.

Finally, the effect of a positive test result on mental and physical health needs to be considered and investigated.³⁵

Anti-virals

Whatever happens, the use of AZT and other "anti-virals" which are supposed to target HIV replication, but actually kill cells indiscriminately (and ultimately the whole body), must be stopped immediately. It is especially distressing to note that AZT and its analogues preferentially attack those cells which divide most rapidly, namely, cells in the intestines causing diarrhoea and malabsorption of food, and in bone marrow, ironically, the primary production site for cells of the immune system.³⁶

The people who need our help

The most important and delicate task is to convince antibody test positives that their result is not a death sentence, to be generally supportive of them, to assuage their anxiety, and to help them understand that with appropriate treatment of any specific disease, they have a good chance to retain or regain their health. The large number of long-term positives, whose condition cannot be explained by conventional AIDS theory, as well

as the phenomenon of sero-reversion (return to negative test status), provide eloquent testimony to this. HIV/AIDS researchers and health officials are herewith called upon to debate the whole subject of HIV/AIDS openly and humanely, and to recognise the mistake of assuming that immune deficiency was acquired by an infectious agent.

The future

To address the many ills of our age, it is essential to regain over our own bodies proper autonomy which we have ceded to misguided "experts".³⁷

If we refuse to learn from what has happened in AIDS research and related developments, then worse is on the way, some of it is, indeed, here already.³⁸ An early genetics agenda dates back to the 1860s,³⁹ and in its contemporary form is a primitive genetic determinism based on genetic sequence analysis, which holds out the prospect of manipulating, at least, defective genes. This is just wishful thinking:⁴⁰ all models of genetics and associated technologies, such as genome therapy, are based on a one-dimensional, static model which is an egregious oversimplification. The expectation of success in this field is based on the simplistic model devised by Gregor Mendel, which even he could only make work by ignoring and discarding data which did not fit.⁴¹

Acknowledgments:

This article is dedicated to Ivan Illich and Thomas McKeown: had their writings been taken more seriously the world would have been spared the AIDS panic as well as other reckless distortions of due scientific process." I would also like to thank Volker Gildemeister (Meditel, London) for translation and constructive criticism, and of course, my family, Hans-Walter Wiegand and other friends too numerous to list, for all their support.

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Just how little confidence is placed in the validity of such tests is revealed by the caveats in the leaflet accompanying one of them:

The Amplicor HIV-1 PCR test has been tested using whole blood specimens only. Performance with other specimens has not been evaluated and may result in false negative or false positive results...

Detection of HIV-1 may be dependent on the amount of proviral DNA in the specimen. This may be affected by specimen collection methods and patient factors such as age, disease status and risk factors etc. As in any diagnostic test, results from Amplicor HIV-1 test should be interpreted with consideration of clinical and laboratory findings.

It will become clear later why whole blood rather than serum is used for this test, all the more so as the purpose of the test is to detect transmissible virus particles which should not have anything to do with the presence or absence of blood cells. This is all the more significant, since a major form of HIV transmission is supposed to be via Factor 8 given to haemophiliacs, where blood cells are absent. The implication is that without blood cells no "viral" DNA would be detected!

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Health as a Virtue (Ivan Illich):

Health designates a process of adaptation. It is not the result of instinct, but of an autonomous yet culturally shaped reaction to socially created reality. It designates the ability to adapt to changing environments, to growing up and to ageing, to healing when damaged, to suffering, and to the peaceful expectation of death. Health embraces the future as well, and therefore includes anguish and the inner resources to live with it.

Health designates a process by which each person is responsible, but only in part responsible to others. To be responsible may mean two things. A man is responsible for what he has done, and responsible to another person or group. Only when he feels subjectively responsible or answerable to another person will the consequences of his failure be not criticism, censure, or punishment but regret, remorse, and true repentance. The consequent states of grief and distress are marks of recovery and healing, and are phenomenologically something entirely different from guilt feelings. Health is a task, and as such is not comparable to the physiological balance of beasts. Success in this personal task is in large part the result of the self-awareness, self-discipline, and inner resources by which each person regulates his own daily rhythm and actions, his diet, and his sexual activity. Knowledge encompassing desirable activities, competent performance, the commitment to enhance health in others - these are all learned from the example of peers or elders. These personal activities are shaped and conditioned by the culture in which the individual grows up: patterns of work and leisure, of celebration and sleep, of production and preparation of food and drink, of family relations and politics. Long-tested health patterns that fit a geographic area and a certain technical situation depend to a large extent on long-lasting political autonomy. They depend on the spread of responsibility for health habits and for the socio-biological environment. That is, they depend on the dynamic stability of a culture.

The level of public health corresponds to the degree to which the means and responsibility for coping with

illness are distributed among the total population. This ability to cope can be enhanced but never replaced by medical intervention or by the hygienic characteristics of the environment. That society which can reduce professional intervention to the minimum will provide the best conditions for health. The greater the potential for autonomous adaptation to self, to others, and to the environment, the less management of adaptation will be needed or tolerated.

A world of optimal and widespread health is obviously a world of minimal and only occasional medical intervention. Healthy people are those who live in healthy homes on a healthy diet in an environment equally fit for birth, growth, work, healing, and dying; they are sustained by a culture that enhances the conscious acceptance of limits to population, of ageing, of incomplete recovery and ever-imminent death. Healthy people need minimal bureaucratic interference to mate, give birth, share the human condition, and die.

Man's consciously lived fragility, individuality, and relatedness make the experience of pain, of sickness, and of death an integral part of his life. The ability to cope with this trio autonomously is fundamental to his health. As he becomes dependent on the management of his intimacy, he renounces his autonomy and his health must decline. The true miracle of modern medicine is diabolical. It consists in making not only individuals but whole populations survive on inhumanly low levels of personal health. Medical nemesis is the negative feedback of a social organization that set out to improve and equalize the opportunity for each man to cope in autonomy and ended by destroying it.

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