BACK

This article, describing the essence of The Perth Group's work, is by Neville Hodgkinson, formerly medical and science correspondent of the London *Daily Mail* and *Sunday Times.* Neville first wrote about The Perth Group's work in *The Sunday Times* in 1992, and has published many articles about it since. He is the author of *AIDS – The Failure of Contemporary Science* (Fourth Estate, 1996).

The six mistakes that created and sustained "HIV"

The so-called Human Immunodeficiency Virus (HIV) was announced by the US Government as the "probable cause" of AIDS in 1984. A group of scientists in Perth, Western Australia, have challenged this theory throughout the years since.

They have posted a detailed, 80-page manuscript questioning the very existence of the virus. It describes five mistakes which, they say, accompanied construction of the HIV theory by the first AIDS researchers, and its premature acceptance by the scientific and medical communities.

A sixth mistake, which came later, helped to sustain the theory.

In essence, the group's critique asserts that:

- Different groups at risk of AIDS had in common an imbalance in the functioning of the cells that make up our body tissues and organs, brought about by a variety of causes.
- In the feverish atmosphere of fear and anxiety that arose when AIDS first struck, this disorder became misinterpreted as signalling the presence of a deadly, new, sexually transmitted virus, and
- Once the global alert was sounded over "HIV", it became almost impossible for contrary views to be heard.

Even today, the group says, despite thousands of claims to the contrary, there is still no proof such a virus has been isolated and purified from the tissues of AIDS patients - the procedure virologists use to prove a particular virus exists.

Calling for a review of the entire "HIV/AIDS" belief system, the Perth scientists express the concern that the true causes of AIDS were never adequately addressed, and that millions globally are still being burdened with a false diagnosis of "HIV" infection.

In addition, many people who have tested "HIV"-positive, and even who are at risk of doing so, are being strongly advised to take drugs whose claimed benefits come at the cost of serious toxicities. Although the drugs are used to prevent and treat the immune decline said to cause the onset of diseases indicative of AIDS, there is no proof such benefits are due to an "anti-HIV" effect.

At the heart of the group's challenge lies the work of biophysicist Eleni Papadoulos-Eleopulos, of the Royal Perth Hospital, who in 1982 published in the *Journal of Theoretical Biology* a new theory about how the functioning of our body cells can go wrong. The essence was that the chemical process known as redox, in which our cells take in, and give out, energy in order to do work, becomes unbalanced. When cells are over-oxidised, their store of potential energy is depleted. The theory postulates that conditions such as cancer, cardiovascular diseases, ageing and blood clotting abnormalities involve such an imbalance.

In the course of developing this theory, Papadoulos-Eleopulos became aware of the pathological effects of many of the agents to which patients belonging to AIDS risk groups were exposed – and that they shared the common property of being oxidising as well as carcinogenic agents. These included nitrite inhalants in common use among "at risk" sections of the gay community at the time AIDS emerged; recreational drugs; a wide range of infectious agents, and drugs used to treat them; semen, especially when received anally; and Factor VIII concentrates obtained from blood donors and given to people with the clotting disorder haemophilia.

By the end of 1984 the HIV theory was accepted by virtually everyone as the cause of the collapse of the immune system seen in AIDS. It triggered a global alert, with predictions that almost all sexually active people were at risk of becoming infected. The risk was exacerbated because of a potentially long time lag between infection, and knowing one was infected by the onset of an actual illness.

But the Perth scientists say the theory was questionable from the start, as it was already known that over-oxidation leads to the appearance of opportunistic infections seen in AIDS. In their non-infectious theory of AIDS, the primary causes are the biological effects of the oxidising agents to which individuals belonging to the risk groups are exposed. Furthermore, their theory predicts that AIDS can be prevented and treated by the use of antioxidants.

In the early 1980s Papadoulos-Eleopulos was joined by Dr Valendar Turner, a consultant emergency physician at the Royal Perth Hospital and John Papadimitriou, Professor of Pathology at the University of Western Australia, and subsequently several other scientists.

Over the past three decades the group has critically analysed all aspects of the HIV theory, including the evidence said to prove the existence of a new virus, and the validity of diagnostic tests based on those claims. They have faced relentless censorship and fierce criticism, in particular from beneficiaries of the multi-billion-dollar HIV/AIDS industry, as well as governments, lawyers and politicians who find it difficult to believe that the global scientific and medical communities could have made such a mistake, and left it uncorrected for so long.

In the year 2000, President Thabo Mbeki of South Africa instigated two international Presidential AIDS Advisory Panel meetings, to provide a platform for scientists with different views about AIDS to try to "gain a full knowledge" on the subject. This prompted more than 5,000 attendees at the International AIDS Conference in Durban that year to sign a document which declared: "The evidence that AIDS is caused by HIV-1 or HIV-2 is clear-cut, exhaustive and unambiguous, meeting the highest standards of science". Of this "Durban Declaration", which was championed by *Nature* and other leading science journals around the world, The Perth Group write: "We wish it to be understood that the claim…cannot be substantiated."

The following is the essence of the group's explanation of how the HIV/AIDS paradigm mistakenly came about.

MISTAKE ONE: The enzyme

The first mistake, which came at the earliest stage of laboratory research, concerns an enzyme whose role is crucial in defining the very nature of retroviruses, the virus family to which HIV is said to belong. Retroviruses carry their genetic endowment in the form of RNA rather than DNA. However, to replicate, they first need to copy their RNA into DNA. This is engineered by an enzyme known as reverse transcriptase (RT) which the HIV experts claim is carried inside the virus particles. The activity of this enzyme can be measured and when the HIV pioneers detected this phenomenon in laboratory cultures they interpreted it as proof for the presence of such a virus, despite it being known as early as 1973 that the enzyme is not specific to retroviruses.[1]

In a 1988 *Scientific American* article describing the history of the purported discovery of HIV, Robert Gallo and Luc Montagnier, the two scientists most identified with pioneering the theory, wrote: "The specimen [tissue from the swollen lymph node of a gay man at risk of AIDS] was minced, put into tissue culture and analysed for reverse transcriptase. After two weeks of culture, reverse-transcriptase activity was detected in the culture medium. A retrovirus was present". This was despite Gallo having been among those who showed there could be RT activity in cells free of retroviruses, long before the alleged discovery of HIV.

Nearly a decade later, in a 1997 interview Montagnier gave to the French investigative journalist Djamel Tahi, he still claimed RT activity "is truly specific to retroviruses". This belief was central to the case that he and his team were the first to discover HIV, a discovery for which in 2008 he and his co-worker Françoise Barré-Sinoussi received the Nobel Prize.

Yet it is now known that at least two fifths of the human genome is made up of retrotransposons, mobile genetic elements that can amplify themselves within cells by first being transcribed from DNA to RNA, and then reverse transcribed to DNA. RNA plays a major role in gene expression, and reverse transcriptase is ubiquitous within cells. Detection of RT activity does not mean the presence of a retrovirus. Furthermore, several "non-HIV" microbes reverse transcribe, including some bacteria, and hepatitis B virus which infects many AIDS patients.

More than 100 plant and animal viruses which reverse transcribe have also been identified.

MISTAKE TWO: The particle

The assumption that the RT activity in cell cultures meant a retrovirus was present led to a second huge error in the construction of the HIV theory. This involved by-passing a vital step in virus identification: the separation of viral particles from cellular material. This step is known as purification. "Viruses are particles," the Perth scientists say. "Without proof for the existence of particles there is no proof of the existence of a virus."

It was not that the Montagnier and Gallo teams did not try. Both regularly attempted to purify particles from cultures of cells taken from AIDS patients, or at risk of AIDS, using a technique long-established in retrovirology known as sucrose density gradient ultracentrifugation. In this, a drop of the culture fluid is passed through a sucrose solution spun in a high-speed centrifuge which separates retrovirus particles at a particular density. This material is then examined with an electron microscope (EM) in the hope of demonstrating the presence of the particles.

Montagnier's group cultured cells from a 33-year-old homosexual man with swollen lymph nodes, who indicated that he had had more than 50 sexual partners a year and had traveled to many

[1] http://theperthgroup.com/HIV/ReverseTranscriptasesFinal.pdf

countries. He had a history of several episodes of gonorrhoea, and just three months previously had been treated for syphilis.

In the first of several cell culture experiments the group identified reverse transcriptase activity, which they interpreted as meaning a retrovirus was present. RT was also detected in their second experiment, where cells from their patient were co-cultured (mixed) with the cells of a healthy blood donor. Despite repeatedly looking, however, they failed to report particles in either of these experiments.

In the third experiment, Montagnier took lymphocyte cells from umbilical cord blood, obtained from two placentas, and cultured these with fluids from the second experiment from which all cells had been removed. The idea was to see whether a transmissible agent was present in the fluids. In this case a single micrograph of the (unpurified) cell culture did show a few particles resembling a retrovirus, which the group took to be "HIV". But umbilical cord cell cultures are known to produce such particles, independent of "HIV" infection, or indeed any viral infection whatsoever. No control experiment was done, to see whether the umbilical cord lymphocytes by themselves would produce a similar result.

Even if the particles did originate from the patient's swollen lymph nodes, and not from the umbilical cord cells, that would still not make them a retrovirus, let alone "HIV". In an extensive, blinded, 1988 electron microscope study from Harvard, "HIV particles" were found in 18 out of 20 patients (90%) with enlarged lymph nodes attributed to AIDS, and in 13 out of 15 patients (87%) with enlarged lymph nodes not attributed to AIDS.

In other words, particles that simply look as if they might be retroviruses are non-specific. They can be detected in individuals with non-AIDS-related illnesses; and also where no illness is present.

This is why it is so important to purify, in order to then be able to examine virus particles, precisely characterise their constituents, and prove they are infectious.

In her biography for the Nobel Prize announcement, Barré-Sinoussi gives the impression that purification was achieved when she states that "it was important to visualise the retroviral particles, and Charles Dauguet [the team's electron microscopist]…provided the first images of the virus in February 1983. The isolation, amplification and characterisation of the virus rapidly ensued."

However, when Djamel Tahi pressed Montagnier on this issue in a 1997 interview, asking "Why do the EM photographs published by you come from the culture and not from the purification?", Montagnier replied: "We saw some particles [in the "purified virus" material] but they did not have the morphology typical of retroviruses. They were very different." Of Gallo's work, he said: "I don't know if he really purified. I don't believe so."

Dauguet later went further, telling Tahi: "We have never seen virus particles in the purified virus. What we have seen all the time was cellular debris, no virus particles."

This goes to the crux of the matter. Cellular debris means broken-down pieces of cells used in the cultures. Yet because of the RT activity, Montagnier was convinced he had found a retrovirus. This being the case, the patient from whom he believed the virus had come would have produced antibodies which would react with the virus proteins. When Montagnier incubated blood serum from the patient with what Dauguet called "cellular debris", three proteins were identified as producing a reaction, and Montagnier concluded that one of these was "specifically recognised" as viral.

But there was no scientific justification for this conclusion. It has been seen subsequently that many healthy humans have antibodies that react with this third protein, identified as p24 (a molecular weight of 24,000). It is also known that at least one non-viral, ubiquitous, normal cell component in the "debris" is a protein with the same molecular weight. Yet it became the basis of Montagnier's case for having isolated a new virus; and for the subsequent Nobel Prize. Even today, the detection of this protein, p24, in blood or culture is taken to prove the presence of the virus, and described as "virus isolation".

In May 1984 Robert Gallo published four papers in *Science* with many similarities to the French group's experiments, though he tested samples from more patients, and used an immortal (cancer) cell line to obtain large amounts of proteins for diagnosis and research. His claims to have found the virus that was "the probable cause of AIDS" held no more validity than Montagnier's, however, because he too failed to observe, purify and characterise actual virus particles.

In 2003 The Perth group emailed Gallo asking if he was aware of Montagnier's admission that there were no electron microscope pictures of "purified virus" from the original patient, and whether clinicians had cause for concern about the implication of Montagnier's answer. Had clinicians spent two decades diagnosing patients with a non-existent virus?

Gallo replied: "Montagnier subsequently published pictures of purified HIV as, of course, we did in our first papers. You have no need of worry. The evidence is obvious and overwhelming."

Gallo's reassurance has no basis in fact, the Perth scientists say. Not a single electron micrograph of purified "HIV" was published by Gallo in 1984, or since. Neither has Montagnier published such pictures. Fourteen years later, European and US groups who tried to make good this deficiency were still unable to provide clear evidence of the existence of "HIV".

MISTAKE THREE: The test

The "HIV test" looks for a reaction between antibodies in a person's bloodstream with proteins (antigens) defined as coming from "HIV". But the "HIV" antigens were identified as such not on the basis of being shown to belong to a specific virus, but on the basis that they reacted with antibodies in patients with AIDS or at risk of AIDS. Those patients were then diagnosed as being infected with "HIV", with all the many consequences the diagnosis brings. This reasoning was entirely circular. It lies at the root of the erroneous "HIV/AIDS" construct which dominated public health concerns for decades.

Gallo, whose team developed and marketed the first test kits, stated in 2006 that "no test in medicine is perfect, but done correctly and with a confirmatory second test, the HIV blood test developed in our laboratory comes close…HIV tests were highly accurate from the time they were developed in 1984 and have become much more accurate over time as the underlying technology has evolved. HIV tests are among the most accurate available in medical science."

However, the principle behind the tests is just the same today as it was in 1984, and it remains just as false. It is hard to get one's head around such circularity, but Papadoulos-Eleopulos explains the "logic" behind it as:

1. Take a mixture of yet to be identified proteins (in a cell culture) derived from AIDS patients.
2. Add another mixture of yet to be identified antibodies (in serum) from AIDS patients.
3. Designate the proteins that react as "HIV" proteins.
4. Designate the antibodies that react as "HIV" antibodies.

"Hence, starting with two unknowns, each unknown identifies the other," she writes. "That is, antibodies identify the proteins that identify the antibodies."

Remarkably, the problem was half-acknowledged by public health experts in the early years of AIDS. Delegates at a 1986 World Health Organisation (WHO) meeting in Geneva heard that the test kits were licensed to protect blood supplies and plasma donations, as they served as a broad screen for possible abnormalities in blood. Patients with AIDS and at risk of AIDS suffer a range of active infections and other blood abnormalities, some of which are transmissible. However, a lack of evidence that the antibody reactions were specific to "HIV" meant that the kits should not be used to diagnose or screen for HIV as such.

People with severe immune deficiency, such as AIDS patients and those at risk of AIDS, have high levels of antibodies, any of which could react with the protein in the antibody test kits. Something more was needed to distinguish genuine "HIV" infection or indeed determine if there were truly such a thing as "genuine HIV infection", the experts were told.

Subsequent research has repeatedly confirmed that many different conditions cause raised levels of these antibodies, putting a person at risk of being labeled "HIV"-positive when in fact there is no such virus present. They include mycobacterial infections such as TB and leprosy, widespread among impoverished people, and the cause of millions of misdiagnosed "AIDS" cases in Africa.

Gay men leading "fast track" sex lives with multiple partners, along with drug addicts, blood product recipients, and others whose immune systems are exposed to multiple challenges that put them at risk of AIDS - including malnourished people in poor countries - are more likely to have raised levels of the antibodies looked for by the tests than the general population.

The 100 experts from 34 countries heard at the WHO meeting that a so-called "confirmatory test", called western blot, relied on the same principle as the test kits it was supposed to be checking and so was also incapable of being used to diagnose HIV/AIDS.

How, then, did the "HIV" test take off as a diagnostic tool and "HIV/AIDS" become a global belief system? Despite all the cautions being sounded, a representative from the US Food and Drug Administration told the Geneva meeting that public health needs had caused usage to expand and "it was simply not practical" to stop this.

In retrospect, it was like Pontius Pilate washing his hands before the crucifixion, although the atmosphere at the time was such as to make it immensely difficult for reason to prevail.

Soon afterwards, epidemiological studies showed a close association between testing "HIV"-positive and risk of developing AIDS. These studies were interpreted as providing proof of the viral theory. But the link was artificial, a consequence of the circular reasoning behind the way the test kits were constructed. As the HIV/AIDS paradigm won worldwide acceptance, increasingly complex procedures for trying to make a reliable diagnosis came into being. But the basic problem – not being able to validate any of these procedures against pure virus taken from patients – still remains.

MISTAKE FOUR: The genome

HIV's existence, and the viral theory of AIDS, became the consensus view before data were accumulated on genetic sequences said to comprise the virus's genome. As described, public health experts set aside their reservations about the validity of the "HIV" test because in the febrile atmosphere of the time they felt it was "simply not practical" to stop the test from being used to diagnose AIDS or risk of AIDS.

As time went on, claims that a full-length genome had been sequenced seemed to offer reassurance that despite the failure to obtain virus particles, "HIV" was a tangible reality.

Gallo's complex and ingenious work was the foundation for these claims and is still the best available proof for the existence of an "HIV" genome. It fails close examination, however, for the same reason as the "HIV" test: lack of actual virus particles from which to obtain the genome and to validate the assumptions made.

One fundamental flaw came to light through a two-year US National Institutes of Health Office of Scientific Integrity investigation into Gallo's laboratory practices, following an allegation of scientific misconduct. It found that a cell line which Gallo claimed to have infected with HIV had not been exposed to material from an individual AIDS patient, but to culture fluids from first three and then ultimately from 10 patients. The inquiry, which found this to be "of dubious scientific rigour" (one scientist called it "really crazy"), was told by one of Gallo's co-workers that he had to pool the cultures because none "individually was producing high concentrations of reverse transcriptase".

Gallo's team further claimed that the virus genome, the RNA, was obtained from purified virus particles. In fact, in the so-called "purified virus" material, no virus-like particles were demonstrated. The RNA obtained was a type called messenger RNA (mRNA) that cells use as an intermediate between DNA and the synthesis of proteins. It had long been known that such cellular RNA bands in the centrifuge at the density considered characteristic of retroviruses.

When the RNA was reverse transcribed into DNA fragments of varying size, and those fragments were shown to bind to RNA obtained from "infected" but not "uninfected" cell lines, Gallo interpreted the fragments as the genome of a retrovirus. In further studies, he reproduced this "genome" through molecular cloning techniques.

However, this was another example of circular thinking. The binding between DNA and RNA in the genetic sequences he was manipulating was to be expected, since the same material (what he was calling "purified virus") was used both to obtain the "HIV RNA" and to infect the cell cultures. Under such circumstances it would be impossible not to demonstrate DNA-RNA complementarities. Furthermore, since RNA of the type seen is not unique to retroviruses, he had no valid grounds for assuming the presence of a new viral agent. At no point did Gallo provide evidence to support the claim that "virus particles were purified", nor even that they existed in the material with which he was working.

When Gallo did test AIDS patients directly for the presence of the purported "HIV" genome, he failed to find evidence for it.[2] In other words, contrary to the HIV theory of AIDS, Gallo was not able to prove the existence of the HIV genome in AIDS patients.[3]

Neither Gallo nor Montagnier, nor any other researcher from that day to this, has defined the "HIV" genome by obtaining RNA from purified retroviral particles. After all these years, there is still no proof of the existence of the genome of a new virus, nor of the existence of the whole "HIV" genome in even one AIDS patient.

Tiny segments of the purported genome can be detected through the polymerase chain reaction (PCR) test, and are often wrongly taken as confirmation of an "HIV" diagnosis, even though the

[2] http://theperthgroup.com/HIV/TPGVirusLikeNoOther.pdf#page=39
[3] http://theperthgroup.com/CONTINUUM/PapadopolousReallyAchieved1996.pdf

segments vary to such an extent that the experts have to create "consensus sequences" for the purpose of diagnosing infection. The variation can often be as high as 30-40 per cent. That compares with less than two per cent between the human and chimpanzee genome. Even 50 per cent variation is accepted by most researchers without their questioning whether they are really working with a unique viral entity.

This huge variability is much more consistent with the sequences being newly generated RNA of abnormally stimulated cells than of a virus for which no researcher has ever published proof of purification. Whether the stimulus comes from chemical agents used on cells in the laboratory, the many biological and non-biological chemicals to which AIDS patients or those at risk are exposed, or from the variety of infectious agents to which the AIDS risk groups were repeatedly exposed, the common factor is the "shock" to the cells and not the common presence of a mythical virus. This interpretation is supported by the finding of so-called "HIV" sequences from tumour tissue in several types of cancer.

What this means is that an army of people around the world are doing tests for a virus never proved to exist using proteins and nucleic acids originating from normal cells, albeit abnormally stimulated. It is a tragedy blighting millions of lives.

MISTAKE FIVE: The STD

Along with rapid acceptance of the virus theory, the idea quickly caught on that AIDS was a sexually transmitted disease with heterosexual as well as homosexual intercourse as the main route of transmission. Governments across the world launched health education campaigns warning that as the predicted pandemic spread, almost all sexually active people would become at risk.

Even after nearly 35 years, however, there is no microbiological proof of sexual transmission based on the isolation of "HIV" from genital secretions of index cases followed by tracing and testing of sexual contacts. And except in the context of poor countries where many diseases of poverty have been renamed as "AIDS", the syndrome has remained confined to groups at risk because of lifestyle factors rather than because of exposure to a non-discriminatory STD.

Pioneers of the virus theory felt supported in their belief that AIDS was an STD by the fact that many early studies documented a relationship between different types of sexual activity and the presence or appearance of "HIV" antibodies, for which almost all AIDS patients tested positive.

This association was real. But it came about because of the flawed way the test was developed, not because a new virus was present.

A positive test indicates elevated levels of antibodies induced by the many immune-stimulating agents to which those in the AIDS risk groups have been exposed. Epidemiologists and others documented such exposures from day one.

This means that people who tested "HIV"-positive should never have been given to understand that they were under a death sentence, as was the case for many years because of the "lethal new virus" belief. If exposure to the true causes of "HIV"-positivity is reduced or ended, the increased risk of ill-health may disappear unless the damage caused to the immune system is already irreversible.

This was seen particularly clearly in haemophiliacs. Early ways of treating their blood clotting disorder involved exposing them to concentrates made from blood donations from hundreds of thousands of people. Many tested positive as a result of this challenge from foreign protein. When

genetic engineering made it possible to produce the clotting factor they were missing in a pure form, they showed signs of immune system recovery.

Similar results have been seen in drug addicts, another of the groups at risk of AIDS. For example, the former head of the Australian National Serology Reference Laboratory has published a study which showed that HIV-positive drug addicts lose their "HIV" antibodies and revert to HIV-negative when they give up their habit.

However, if "HIV"-positive individuals continue to be exposed to risk factors that caused them to test positive in the first place, they will face an increased risk of illness that has nothing to do with "HIV". The Perth scientists say that one of the main true causes of both "HIV"-positivity and AIDS is exposure to anally deposited semen. They cite numerous studies in homosexual men that have shown that whereas an individual exposed to frequent, unprotected, receptive anal sex is at high risk of testing positive, and subsequently developing AIDS, no such risk is associated with the insertive (semen-donating) male. In heterosexual studies the evidence is the same: the only sexual risk factor for acquiring a positive antibody test is passive anal intercourse.

For AIDS to appear, they say, a high frequency of receptive anal intercourse over a long period is necessary. In contrast to vaginal intercourse, anally deposited semen is retained and absorbed. Whereas the rectum is lined only by a single layer of absorptive cells, the vagina has a multi-layered, skin-like protective lining.

Early acceptance of the virus hypothesis of AIDS meant that the role of heavy exposure to semen in causing the condition remained largely overlooked and unexamined. Nevertheless, further evidence in support of this claim includes the fact that semen is one of the most potent biological oxidants, and there is theoretical and experimental evidence for it being both carcinogenic and immunosuppressive. In addition, rectal and colonic trauma accompanying passive anal intercourse - facilitating the absorption of semen - are proven risk factors. Volatile nitrite inhalants, widely used to facilitate gay sex in the early years of AIDS, may also facilitate absorption of semen as well as being potent oxidising, immunosuppressive agents in their own right.

"The evidence shows that AIDS is not a disease of sexual orientation but of sexual practices, passive anal intercourse in men and women", the Perth scientists say. "It is not the sexual act *per se* but high frequencies of passive anal intercourse with ejaculation combined with drug use and trauma to the intestinal lining which facilitate system absorption of semen and other toxins."

MISTAKE SIX: The drugs

Protagonists of the virus theory of AIDS maintain that HIV was proven to be the cause in 1984, with publication of the original Gallo and Montagnier papers. Any remaining doubt, they say, was dispelled by the success of a "cocktail" of drugs introduced in 1996 specifically to control "HIV" replication. Known as HAART – Highly Active Antiretroviral Therapy – the drugs are said to have transformed HIV infection into "a manageable chronic condition".

The Perth scientists acknowledge that the drugs do help prevent the onset of familiar diseases which, in the presence of "HIV" antibodies, have been defined as AIDS. But they refute the claim that this confirms "HIV" as the cause, on several grounds:

1. Regardless of their putative "anti-HIV" effects, numerous studies demonstrate that the drugs are toxic to microbes causing some of the most common and severe AIDS-defining diseases, including tuberculosis and fungal infections.

2. Changes in the definition of AIDS created an illusion of a fast-growing epidemic, as more and more conditions of *decreasing* severity– and even no symptomatic illness at all - were brought under the umbrella diagnosis of "HIV"/AIDS. Between 1981 and 1984, the young homosexual men who were the first victims had essentially two lethal illnesses, an aggressive form of pneumonia and a rare cancer called Kaposi's sarcoma. All had been leading fast-track lives with multiple sex partners and heavy drug use as part of the "gay liberation" fight. After the introduction of the "HIV" test in 1984 by US Government scientists, successive redefinitions in 1985, 1987 and 1993 changed the number of AIDS-defining conditions to six, 23, and 26 respectively, including "mild and moderate" diseases. The 1993 change brought a doubling of AIDS diagnoses in the US and elsewhere, as it also required physicians to report HIV-positive individuals with a low T4 (immune cell) count as AIDS cases, even in the absence of disease. Not surprisingly, these changes brought a rapid decrease in the death rate from AIDS several years before the introduction of HAART in 1996. The decline accelerated in 1995 and continued at the same rate in 1996 when HAART was introduced.
3. Other factors that help explain a falling death rate before the introduction of HAART include behaviour change in homosexual men, who were first to recognise the relationship between the two original AIDS diseases and intense sex-and-drugs activity. Those who had been most heavily exposed during the 1970s would have died during the 1980s. Also, an increase in federal funding in 1994 for AIDS patients led to better prevention and treatment of opportunistic infections.

Finally, evidence from the outcome of hundreds of clinical trials of HAART, far from confirming the HIV theory of AIDS, has instead disproven it "beyond reasonable doubt", the scientists say.

HAART is believed to save lives by interrupting the replication cycle of "HIV", reducing the purported "viral load" (also known as "HIV viraemia") in patients and thus reversing the decline in their immunity, thought to be indicated by a falling T4-cell count. According to the virus theory of AIDS, these two measures are central to the disease process: HIV is held to be the cause and declining T4 cells the mechanism leading to AIDS and death.

However, a 2008 review of data obtained from 178 randomised clinical trials of the drugs found that whereas most HAART therapies do appear to offer high levels of control over these two markers for assumed risk of AIDS, the changes did not correlate with actual AIDS cases and deaths.

Papadoulos-Eleopulos and her colleagues conclude: "Even if you were to accept that HIV exists, these clinical trials show it has nothing to do with the deaths of millions of people from AIDS. And since, to date, nobody has published proof that the 'HIV' RNA, whose measurement is used to determine the 'viral load', originates from a retroviral particle, the explanation that there is no virus must hold true. There is no 'HIV' causing AIDS because there is no HIV."