CONTINUUM

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World Aids Conference : ‘HIV tests are non-specific’

Does oxidative stress cause AIDS?

changing the way we think about aids

vol 5 no 4 late summer 1998 UK £4 USA $6

CONTINUUM

changing the way we think about aids

CONTINUUM magazine

172 Foundling Court,
Brunswick Centre, London WC1N 1QE
Tel: [+44] (0)171 713 7071
Fax: [+44] (0)171 713 7072
email continu@dircon.co.uk

Founder: **Jody Wells**
Editor: **Huw Christie**
Assistant Editor: **Alex Russell**
News: **Michael Baumgartner, Huw Christie, Alex Russell, Michael Verney-Elliott**
Layout: **Huw Christie**
Production Assistant**: Clair Walton**
Proof Reading: **Michael Verney-Elliott**
Cover: **Huw Christie**

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features

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Photo : Clair Walton

Did Bill Clinton make an unexpected goodwill visit to the Geneva Aids Conference?

regulars

health • pass • it • on

Essential Selenium

The importance of selenium for optimal immune function is now apparent. In their paper *Selenium: an essential element for immune function*, Roddie McKenzie *et al* describe how selenium is involved in the function of immune cells, and the various immune deficiencies and diseases that result from inadequate dietary intake. Selenium (Se) was discovered in 1817 by Jons Jacob Berzelius who named it after Selene, the Greek goddess of the moon. Various components of the immune system fail to function correctly if dietary Se is deficient. Adequate Se is necessary to protect the immune system from oxidative damage.
see *Immunology Today*, August 98

'hiv' Trials: "useless rubbish"

Kevin Frost, director of clinical research at AmFar (American Foundation for AIDS Research) warned Geneva delegates that 90% of scientific findings submitted to the conference by drug companies were "statistically useless". Frost concluded: "The truth is that most of what gets presented by drug companies at AIDS conferences is useless rubbish. You cannot draw conclusions from statistically flawed studies and no study with a tiny sample can be trusted...Sadly, this sort of 'research' is everywhere at AIDS conferences and is made more dangerous because few people - including doctors - know how to read a research abstract sceptically".
see *Positive Nation* Sept 98

'hiv' Manslaughter?

France's long-running scandal over 'contaminated blood' took a dramatic turn in mid July when the commission of investihgation of the Court of Justice of the Republic rejected a plea by the French attorney general to drop all charges against three former ministers. The ministers stand charged in connection with their responsibilities in introducing measures to prevent 'transmission of hiv' in blood supplies in the early 1980s. The commision sent Laurent Fabius, a former socialist prime minister, and Edmond Hervé and Georgina Dufoix before the Court of Justice on charges of 'manslaughter' and 'involuntary harm to the integrity of persons'. These charges would be overturned if it is demonstrated that 'hiv' was not in blood supplies.
see Nature, 23 July 98.

Drug combinations to exclude 'failed' PIs

Committee reports another dead end

Caution has been sounded over the "long-term effectiveness of anti-HIV treatments" by Britain's All Party Parliamentary Group on AIDS (APPGA) in its Geneva Briefing, July 1998. Published within weeks of a New York Times article reporting leading orthodox researcher Dr David Cooper's view that the side-effects of protease inhibitors are now "a very large problem", the APPGA explains, "Serious side effects and long-term difficulties with this class of drugs are now emerging and have been shown to affect the majority of people taking them" and encourages consideration of "regimes that do not contain a PI".

Lawrence Altman in the New York Times reports, "American and European doctors plan to begin trials later this year to test drug combinations that exclude protease inhibitors to determine if they could become first line therapy, replacing those combinations that include protease inhibitors."

The US licensing trial for PIs (National Institute of Allergy and Infectious Disease) was cut short in February 1997. Despite official conclusions that the difference in death rates in the different arms of the study was not statistically significant, the results were presented as "definitive" by trial leader Dr Hammer. The Economist noted that pharmaceutical companies were hoping to "hoover up billions."

In the 19 months since the premature conclusion of the trial a fuller clinical picture of the adverse effects of the drugs has become available, fulfilling Wall Street Journal Correspondent M. Waldholz's prediction (Oct '96) that "protease patients are, in effect, guinea pigs in one of the largest and most expensive medical experiments of out time".

Into the market space created by the decline and fall of protease inhibitors comes the newest genre of 'anti-HIV' drugs, described as 'fusion inhibitors'. The Financial Times' Pharmaceutical News (July) leads with the story "Blocking fusion is the next great wave says Roche AIDS researcher", and refers to current "drug failure". Spins Nick Cammack, head of virology at Roche Discovery, "..the potential for blocking infection of cells in the first place holds tremendous hope...It's early days, we have to find the drugs and work out how to use them...". He ommitted to make mention of having to persuade increasingly disillusioned consumers to swallow them.

Science journal questions 'hiv-discoverer' Montagnier

The latest edition of British science journal Current Medical Research and Opinion again presents questions about the isolation of HIV and the validity of HIV-tests, in a Short Communication by biophysicist and AIDS-analyst Eleni Papadopulos-Eleopulos et al titled HIV Antibody Tests and Viral Load - More Unanswered Questions and a Further Plea for Clarification (Vol.14, No.3, 1998, 185-186). Eleopulos' Perth Group previously published in the same journal (Vol.13, No.10; HIV antibodies: further questions and a plea for clarification). The new article refers to Prof. Luc Montagnier's interview with French journalist Djamel Tahi in Continuum (Vol.5, No.2) noting that up to 1997, "neither Montagnier's group nor anybody else published electron micrographs of the 1.16g/ml band showing that the band contained nothing else but particles with the morphological characteristics of retroviral particles, i.e. purified particles". They point to the revelation by Montagnier in July 1997 to Tahi, that the reason for the abscence of such micrographs was because even after a "Roman effort", his team could see no particles with "morphology typical of retroviruses".

Acknowledging Montagnier's sample did not contain "particles with unique retroviral morphology as the HIV is said to be", the Perth Group conclude:

"1. How is it possible to claim proof for retroviral purification and thus the existence of HIV?

2. How is it possible to consider the proteins that banded at 1.16 g/ml to be the proteins of a unique retrovirus (HIV), and to use them as antigens in antibody tests to prove infection with a retrovirus (HIV)?

3. How is it possible to consider that the RNAs that banded at 1.16g/ml represent the genome of a unique retrovirus, and to use them as probes and primers for hybridisation and PCR tests to prove infection with this virus and in fact to measure the viral load?"

Copies of the concisely argued paper have been sent to Prof. Richard Tedder, Head of Virology, University College London and Keith Alcorn of the National AIDS Manual, London.

Current Medical Research and Opinion can be contacted at Ph: +44 (0)1635 522651

Mann who fell to earth

Jetsetting architect of global Aids plunges to death in Swissair crash

Jonathan Mann, founding Director of the World Health Organisation's Special Programme on Aids (1986 - 1990), and his wife, Mary Lou Clements, an 'expert on vaccines', were aboard Swissair Flight 111 which crashed in the Atlantic Ocean off Halifax, Nova Scotia on September 2nd. A United Nations spokesman said Mann and his wife were on their way to attend a series of WHO and UNAIDS meetings on Aids.

Latest reports say the pilots of the stricken aircraft had to shut down almost all its electrical systems, including power to cabin systems, and even the 'black box' and the transponder, a full six minutes before the McDonnell-Douglas MD 11 "hit the ocean at enormous velocity and probably nose down, in an almost vertical dive": on the ocean bed, parts of the tail section and the nose are compacted together, and traces of only 141 of the 229 on board have been identified, using DNA tests.

The medical couple were remembered at a WHO gathering and praised for their dedication to public health, despite Mann's reputation among some colleagues for opportunism and stridency. A tearful Gro Harlem Brundtland, former Norwegian prime minister and physician who took over as WHO director-general last July, instructed 200 staff : "Their names were on the passenger list. We are mourning Mary Lou and Jonathan".

Peter Piot, the Belgian epidemiologist who has headed the UNAIDS programme since 1995, told mourners: "Jonathan was on his way to a meeting at UNAIDS to kick off the new global strategy we are developing...He was a true pioneer in the global response to the global AIDS epidemic.".

Mann earned his undergraduate degree in history from Harvard University in 1969. His interest turned to medicine, and he later entered Washington School of Medicine in St. Louis. He worked at the Centres for Disease Control and in 1984 set up Project SIDA in Zaire. Cites the British Medical Journal of Mann's ambiguous achievements, "With Project SIDA, the work of describing the nature, scope and progression of HIV through populations had begun." Since he resigned in 1990 after a bitter dispute with the WHO's director over global AIDS policy, Mann hadn't set foot in the organization's Geneva headquarters. With his current platform Allegheny University suffering from severe financial problems, Mann reportedly looked forward to talks at UNAIDS about how he might launch a new phase in his career.

Larry Kessler, executive director of the Massachusetts AIDS Action Committe suggested:"Jon was a true missionary, a very powerful voice about the interconnection of health, justice and human rights." Dr Anthony Fauci, director of the U.S. National Institute of Allergy and Infectious Disease told United Press International Mann's death was a "major, major" loss to AIDS research. Fauci recalled that Mann was "one of the first and most persistent loud voices in the 1980s" to persuade the world that AIDS would go global and become a heterosexual disease. Clearly that was a misunderstanding.

Mary Lou Clements-Mann had planned to attend meetings in Geneva on how to design an AIDS vaccine 'practical for use in developing nations'.

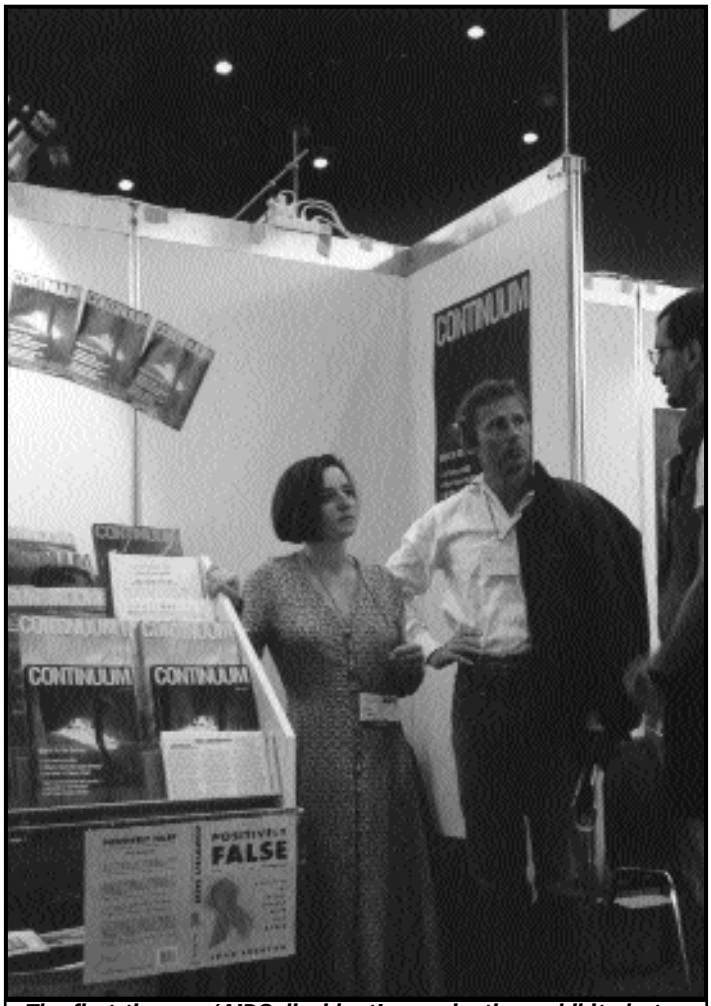

Photo : Huw Christie

The first time an 'AIDS-dissident' organisation exhibited at a World AIDS Conference? The Continuum stall in the Non-Governmental Organisation (NGO) hall at Geneva. l-r Clair Walton (Continuum), Dr Claus Koehnlein (Germany), Michael Baumgartner (IFAS). Magazines, books, videos and information from other dissident groups were available and well received.

Leading Aids immunologist slams early, aggressive 'hiv' therapy in ***Lancet***

In an editorial in the September 19th issue of the Lancet, Dr. Jay Levy of the University in San Francisco, suggests reserving certain antiretroviral therapies for a 'later stage of infection'. He refers to the majority of patients who are given drugs shortly after their hiv-positive diagnoses. Levy states: "In my view early treatment with antiviral drugs starts the clock ticking too soon ...".

Although the argument by the Aids establishment is that early treatment is supposed to preserve the immune system, Levy points out that this claim overlooks the fact that "..these drugs can be toxic and can be directly detrimental to a natural response to hiv ...". He continues by pointing out that the often experienced recurrence of 'viremia' in patients who stop treatment suggests that the immune system has either been compromised, even 'put to rest' by the drugs, making an effective immune response against 'hiv' impossible. Levy continues to suggest however that "...current therapeutic regimes should be reserved for those patients who have symptoms ..."

PIs Poison Pregnancy

Combination 'antitretroviral' therapy administered to 'hiv+' women during pregnancy to prevent putative 'vertical transmission' may cause adverse events in both mother and neonate, says a report by Swiss researchers. In an abstract presented during the 12th World AIDS Conference, Dr. Patrizio Lorenzi *et al* analysed the safety of combo therapy in women and their offspring: "...one or more adverse events occurred in 21/37 women and in 17/30 babies." Nine women developed grade 1 anemia and 6 women developed grade 2 anemia or higher. Adverse events in the neonates included prematurity, intracerebal hemorrhage, malformation, anemia, hyperbilirubinemia, transient hepatitis and cryptochidia.

see *Reuters* 6 Aug 98

Smoke for strokes

Two constituents of marijuana can help prevent the brain damage that often follows a stroke. The discovery by researchers at the National Institutes of Health (NIH) will add weight to the arguments of GPs who think the drug should be legal for medical use. When marijuana is smoked, chemicals called cannabidiol (CBD) and tetrahydrocannabinol (THC) enter the body. THC binds to proteins on the surface of brain cells called cannabinoid receptors, causing the drugs mind-altering effects. CBD doesn't bind to these proteins and is not psychoactive. Researchers have begun testing CBD to prevent brain damage in animal studies with promising results, (despite the controversial nature of such research methods). People can tolerate high doses of CBD, and because it quickly arrives in the brain, CBD could be an ideal drug for treating strokes.

see *New Scientist*, 11 July 1998

Liquid Norvir

Production problems with Ritonavir capsules (Norvir) mean taking it in liquid form which has an unpleasant and bitter taste. Lisa Power of London's Terrence Higgins Trust advised: "There are ways of dealing with the unpleasant taste, such as mixing it with a chocolate drink or eating peanut butter." Manufacturers, Abbott Laboratories, are trying to find out why the manufacturing problems occurred. The drug is forming an abnormal crystal structure which makes it less soluble so the expected dose of the drug is not absorbed.

see *Pink Paper*, 7 August 1998

Judge says mother can withhold 'hiv' drugs

On September 14, in Maine USA, Ms. Valerie Emerson, a 26 year-old divorced mother of three boys - Zakary 6, Nikolas 4 and Jacob 2, won an historic legal victory in establishing the right of a parent to withhold combination therapy treatment with protease inhibitor drugs to treat her son Nikolas, who is HIV positive. Valerie, herself diagnosed but well, has had four children, but her daughter succumbed to "AIDS related pneumonia" in January 1997 after undergoing a course of treatment with AZT. Judge Douglas A. Clapp of Maine District Court rejected a petition from the local Department of Human Services in Bangor, Maine, seeking to take custody of Nikolas to administer the drugs against his mother's wishes. In his powerfully written judgement the Judge stated:

"The monotherapy, which the best doctors told Ms. Emerson was appropriate for her daughter many months ago failed fatally and is now not recommended by the same experts. Instead, they have recommended a more aggressive and powerful therapy. They may be right in this advice. Current statistics can be interpreted that they may also just as likely be wrong. If so, they will move on to better and more informed attempts to cure this as yet incurable disease, but Ms. Emerson will bury another child. She has placed her faith in this medical approach in the past and has lost a child. She has discontinued her own treatment with no apparent present ill-effects. She has observed an outward improvement in her sick son's condition with a discontinuance of drug therapy. The State of Maine is now in no position to tell her in the face of her unique experience that she is wrong in her current judgement to wait for better and more reliable treatment methods. In these circumstances and with the relative uncertainty of the efficacy of the proposed treatment, it can only reasonably be left up to the parent to make an informed choice in this regard. This she has done, and if that decision is wrong and exposes Nikolas to jeopardy, it is only because the current body of information available to any mother in her situation is limited or conflicting. The court agrees with Nikolas's treating family physician that his mother's decision, while not necessarily the one many parents may make in the same circumstance, does not constitute serious parental neglect. Accordingly, the petition for child protection order is dismissed."

Both Dr. David Rasnick and Dr. Roberto Giraldo, familiar to Continuum readers, gave evidence for Ms. Emerson, warning against the use of protease inhibitor cocktails, whose long-term efficacy if far from proven in adults, and entirely unknown in infants, and their opinion on the drugs' acute toxicity obviously influenced the Judge's decision. After the judgement, Valerie wrote a moving letter to David Rasnick:

"I am just a country girl and mother. The only education I have is I graduated high school with honors. If I can come up with the same conclusions that you and Dr. Duesberg and Dr. Giraldo can with all the expertise you all have, why is it so hard for everyone else to accept? To me it is as clear as black and white based on my experience and the limited amount of research I've been able to do. Why, when the doctors have all this information at easy access, do the doctors question it so? It's the only conclusion that makes any sense at all. ..... Thank you so much for enriching my life."

Another Ho, similar Aids ethics?

Dr. John L. Ho, a 48 year old Associate Professor of Medicine and Microbiolgy at the Joan and Sanford Weill Medical College and Graduate School of Medical Science of Cornell University, one of the largest immunolology and Aids-related research labs in New York and a recipient of more than US$2 millon in federal money, is being investigated by officials after allegations by fellow members of his lab. Charges include ordering the falsification of data in research grant applications, knowingly using false claims to obtain a federal grant of US$1.5 million, publishing a paper based on falsified experiments and threatening or punishing lab staff who discoverd the damaging evidence.

According to lab members, questions about the integrity of Ho's research had already surfaced during the last 19 months. The inquiry has found that some, but not yet all of the allegations have been supported by other people.

Ho - viewed by his peers as an up and coming immunologist - sits on a variety of national research peer reviw committees and is involved in major federally funded Aids research.

The scientific community is concerned that the incentives to commit scientific fraud have intensified as competition has increased among researchers to win grant money and publish findings.

Chris Pascal, acting director of the US Federal Office of Research Integrity, says that allegations as serious as those raised in this case are rare: out of the about 40 investigations annually among the 3,000 institutions receiving federal research grants, 15 findings of misconduct are identified each year.

Human Rights Commission call for investigation of 'hiv'

United Nations
Press Release

The United Nations released information on 24th August on the latest call to the Subcommission on Human Rights for investigation of 'hiv', the suggested virus expected to cause AIDS, with particular criticism of the newly released policy statement by UNAIDS, the WHO and UNICEF on "HIV and Infant Feeding" which recommends diagnosed mothers refrain from breastfeeding. Michael Baumgartner made the presentation to the Subcommission on behalf of International Educational Development, Humanitarian Law Project, IFAS, Continuum, GaIA Trust, HEAL United and Action Positive Switzerland, calling for fuller study of 'hiv' phenomena by the major organisations together with independent scientists and experts, to evaluate the ambiguities around isolation of and testing for 'hiv' "to solve the AIDS problem and prevent unnecessary suffering and death."
The UN report noted the claim that "Children born to mothers expected to be carriers of HIV were at risk of being deprived of their most important source of health: the milk of their mother". It was pointed out that up to December last year, the Weekly Epidemiological Record issued by the Centres for Disease Control listed at most 14 cases of alleged mother to child transmission in two African countries, with a total of 140 reported cases in all of the African continent.

Links develop after seminar in Ukraine on Continuum themes

Photo : Huw Christie

In August Continuum Committee members Huw Christie and Maggie Turner were met in Kiev, Ukraine (above), by Dr Dmitri Gouskov and Ms Galina Polyakova under the auspices of their E.U.-funded hiv/AIDS education programme, in preparation for a 19 hour train trip to Sinferopol in the Crimea for a week long seminar on alternative prespectives on hiv, AIDS, immunity, health and the workings of self-help groups.
Some 15 participants including physicians, diagnosed people and the Chief of Kiev's anti-drugs taskforce attended the seminar, staying in local accomodation on the Black Sea coast.
Figures for 'hiv' diagnoses in Ukraine vary greatly between around 30,000 to 110,000 depending on the source, but most agree that over 90% are in intravenous drug users.
An in-depth look at the situation in Ukraine, and Continuum's project involvement, will appear next issue.

World Bank AIDS Vaccine

The World Bank has formed a task force to plan a project called Innovative Financing Instruments for HIV/AIDS Vaccines, which would provide a guaranteed market for AIDS vaccines. Under this plan, countries would secure either a loan or a gift - depending on their economic status - from the World Bank that they would promise to spend on a working AIDS vaccine. "If there were a large pot of gold at the end," says Amie Baston, a management consultant who co-chairs the task force, "companies may be more willing to invest. But industry is cautious about potential returns from new vaccines and it has mainly left the commercial field to small, cash-starved biotechs."
see *Science* 28 August 1998

Sound familiar?

The results of various serologic tests for HHV-8 (the unproven virus suggested to cause KS) in asymptomatic patients are variable according to Dr. Charles S. Rabkin of the National Cancer Institute in Maryland. Investigators compared the results of seven immunofluorescence assays and ELISAs in the serologic detection of HHV-8 in four groups of asymptomatic patients. When diagnosing HHV-8, the researchers conclude that results of serologic assays should probably be correlated with viral protein or nucleic acid detection methods, which are also variable.
see *Journal of Infectious Diseases*, 1998, 178:304-309

AIDS Directors' Pay

9 US AIDS charties pay their directors over $100,000 a year. Directors of the 9 which receive $53 million a year from federal, state, and local governments, are in charge of operations, budgets and staff. Rep. Tom Coburn, a treating physician said: "I was shocked to discover how many AIDS organisations pay their executives excessive salaries...At a time when direct services and medically necessary care is being curtailed many AIDS charity executives have put lining their own pockets above saving many lives." Salaries and other financial information about AIDS organisations nationwide have been posted on the World Wide Web by a San Francisco advocacy group, the Accoutability Project.
see *The Blade*, Toledo, Ohio 7 May 1998

NEED TO KNOW?

PUBLISHING

The Canadian and U.S. distributors for the new book Positively False, Exposing the Myths Around HIV/AIDS by Joan Shenton are St Martin's Press, 175 Fifth Avenue, New York, NY 10010

The video AIDS - A Second Opinion can be obtained on Canadaian/USA NTSC VHS format from Gary Null & Associates, PO Box 918, Planetarium Station, New York, NY 10024. Tel. 212-431 3990

WEBSITES

Association Mark Griffiths website - first French language dissident site - at http://perso.wanadoo.fr/sidasante

Perth group of HIV/AIDS scientists at http://www.virusmyth.com/aids/perth-group

Celia Farber's new 'Aids" column at impressionmag.com

Reappraising AIDS website at http://www.virusmyth.com

German translation of Eleopulos interview with Christine Johnson from Continuum vol 5 no. 1 at http://privat.schlund.de/mleitner/papadop

Continuum website in development at http://www.virusmyth.com/aids/data2/continuum.htm

Noam Chomsky Continuum interview at http://www.homeusers.prestel.co.uk/littleton/ai_aids.htm

Death Camp website at http://www.angelfire.com/ar/dthcamp

FRANCAIS, ITALIANO

French and Italian translations of Eleopulos interview with Christine Johnson Continuum vol 5 no. 1 are available on paper from Continuum office, cost £2.00

NOTE

The paper by Prof. Etienne de Harven in the last issue of Continuum was first published as a supplement to the Infomation Dossier of the International Forum for Accessible Science. Copies of the complete dossier are available for US$20.00 or equivalent from IFAS, c/o Elisabethanstrasse 51, 3014 Bern, Switzerland.

CONTINUUM Meeting

Questions
Discussions
Experiences

Thursday 29th October, 6:00 - 8:00pm

at Continuum, 172 Foundling Court, Brunswick Centre (door 3) Marchmont St London WC1N 1QE
(near Russell Square tube station)

Please call to indicate attendance on 0171 - 713 7071

Tony Tompsett 1959 - 1998

Photo : Huw Christie

Huw Christie writes:

It was with a numbing sense of déjà vu I acknowledged that my longtime colleague at Continuum, TONY TOMPSETT, was getting iller in the months and weeks before his death - unspeakably unfair - in late June this year. Alex Russell visited his hospital bed two days before Tony died. Tony's partner and family were there; Tony was unconscious on life-support. Until a few days before, Alex was told, Tony had been insisting he was "going to beat this virus".

What he was directly afflicted with was Kaposi's sarcoma, diagnoses of toxoplasmosis, possible pneumonia. He had used a medical regime of antibiotics and other drugs over many months.

Tony started working as a full time volunteer at Continuum when the office was in a small freshly decorated room in Jody Wells' flat in Harlesden in 1993 - and he never really stopped. Late nights at the office, working weekends, laborious hours laying out the magazine which he taught himself in Quark Express, and managing the day to day business of the office including the subscriber database. When he started getting ill he told me he felt he'd never really found the time to actually read the magazine.

His selfless design work enabled the publication of at least two seminal scientific papers, The Isolation of HIV: Has it really been achieved? The Case Against by Eleopulos et al (Vol 4 No 3), and The Drug AIDS Hypothesis by Duesberg and Rasnick (Vol 4 No 5). These detailed papers which he typeset demanded careful attention to small textual detail, each forming a 24 page supplement to what was then the standard 40 page magazine format. He laid out all the issues from Vol 3 No 1 to Vol 4 No 5, and Vol 5 No 1.

Those who worked alongside Tony most consistently over the years - Molly Ratcliffe, Rafael Ramos, Alex Russell, myself - knew his patience, reliability, quiet industrious commitment to getting the jobs done.

Tony used to talk about gearing up to some music making amongst us - he still had the violin he'd played in his school orchestra. That never happened; but a few of us met up several times at The Fridge club in London where some of the old 'gay' values persisted - musical abandon, shared security, and where recreational drugs still tempted revellers as if biochemical risks were a dream.

If dissidence is a chronic dis-ease, the ways of stress and self-abuse creep up on different people differently. Some people will attribute Tony's death to a human immunodeficiency virus. In my view that mindset is more or less directly responsible for the lack of effective health-restoring therapies for people with these now familiar illnesses.

The name Tony Tompsett must never be forgotten as one of the pioneers in the provision of information around 'hiv'/aids of the kind that radically extends the options of people facing difficult and intimate choices.

correspondence

from Department of Health, London

HIV Testing

Thankyou for your letter of 27th April to the Secretary of State which has been passed to me for reply.

The Government takers advice on HIV/AIDS from a wide range of organisations and values their contribution to the fight against HIV & AIDS.

The choice of HIV test kit is a matter for those offering testing services but it is no longer accepted practice that a western blot is essential in diagnosing HIV infection. the Government encourages all who feel that they may have been at risk of HIV infection to seek testing and this view is supported by healthcare professionals and other groups.

While you and a minority of scientists do not agree, the international scientific consensus is that HIV causes AIDS. This view is based on evidence that cases of AIDS have been reported among people of all ages, with widely differing background and lifestyles, from all over the world and the only link between them is HIV infection.

Yours sincerely,
Sally Wellsteed,
Communicable Diseases Branch,
Health Promotion Division

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from Dr Shantilal Kothari, Academy of Nutrition Improvement Nagpur, India

Hope this letter will find you in best of health and spirit. After going through various articles, short notes, and experiences of people leading healthy and happy lives after an HIV positive diagnosis published in your most valuable magazine I have decided to give a cash prize of Rs. One Lakh to any individual or institution whoso-ever proves that AIDS is a disease and caused by a virus HIV, and not a stage of intoxication resulting from a combination of various factors i.e. excessive consumption over a prolonged period of Narcotics and/or Recreational drugs (as described by Michael Urs Baumgartner in his article in June/July 1995 issue). We are also extensively stating that AIDS is an Acquired Iatrogenic Death Syndrome as has been pronounced by Dr med. Heinrich Kremer (vol 4. no. 4 1996).

Three doctors of Nagpur have accepted our above challenge on the basis of work done and/or published by the W.H.O. in their numerous publications. They have publically announced that they will prove within a period of six months that AIDS is a disease and it is caused exclusively by a virus, HIV. Newspaper clippings are enclosed herewith for your information. These doctors have even refused to read articles or information published in Continuum. They stoutly feel that information and data provided or published by the W.H.O. are the only truth and there is no other side of the coin, whatsoever. Total Brainwash.

I will be very happy and encouraged if any one of Dr Stefan Lanka or Dr Eleni Papadopulos-Eleopulos or Prof. Alfred Hassig or any other appropriate scientist would take part in the programme and prove that HIV is not the cause of AIDS, or that HIV=AIDS=Death is a myth. I will extend them a personal invitation. I feel this is a good opportunity for all of us to prove that HIV=AIDS=Death is a myth and save thousands of people who otherwise will be killed by drugs or fear psychosis. We will be able to offer one half of travelling expenses along with free lodging and board in our country. We will also like to know what type of facilities or equipment they would need for explaining their viewpoint.

We will also be obliged if you can make available addresses of individuals or institutions (NGOs) who are sincerely working to prove that HIV=AIDS=Death is a myth and also could help us in removing the misconception and fear about AIDS created by the W.H.O for money by money.

Kind regards,
Dr Shantilal Kothari,
President
• Contact Dr Kothari via Continuum

editorial

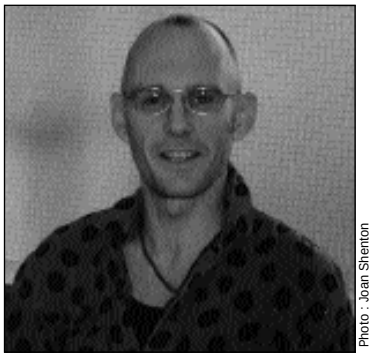

Photo : Joan Shenton

It may be that we are living through an eerily dim time for freedom and human health and its politics, but even the grotesque, empty Disney-style jamboree that was the Geneva World AIDS Conference had its silver lining : longer-time AIDS dissidents and those of us more recently engaged met to redesign the programme there, and very important things were achieved. In meetings, press conferences, press releases, fringe meetings, hunger strikes and interviews, alternative analytical discourses and data were spread throughout the fragile environment: some events and observations are discussed, from a variety of perspectives, in several articles in this issue, among other topics of potentially major importance, in particular data on the health implications of oxidative stress.

I can only thank the egregious group of dissident contributors who have made this issue possible: you know who you are.

This year it's been concluded by leading scientists at an official meeting of a World AIDS Conference that there is no proof of the existence of a human immunodeficiency virus, and no valid way of testing for one. That's the fact - and it's officially recorded, so you can check it. God's blood! How soon will it be that AIDS-interests start to run for cover? Where will they hide?

If the internationally linked efforts of doubters, thinkers and survivors, humane dissidents in general, are redoubled in determination now, of all times, we may see a rapid crumbling of the assumptions behind 'AIDS' in the next few years. Proper, healing therapies are still not widely on offer. Testing of trusting people's blood for 'the Aids virus hiv' continues. Real health risks are disguised. Pharmaceuticals in themselves ensure acres of graves. We have little choice but to resolve the errors of 'AIDS', and learn from them. Is the AIDS-construct not a deadly distraction from the actual experiences of social life, including institutionalised economic and moral oppression, spiritual defeat, heartless exploitation and commercialised anaesthesia?

The State of 'AIDS' can certainly be overthrown. Health, freedom, honesty, sufficiency can be included in our ideals. Our means can include determination, careful preparation and self-respect. Geneva switched on a green light in that direction. Personally I suppose I will never forget the doyen of 'viral load', David Ho of the Aaron Diamond Aids Centre in New York seeking to reassure me that "After all, it's a question of numbers" when trying to fathom what may be causing a person's illness or wellness. If any comment lays bare the warp between overarching technological skullduggery and human health, that's it.

Meanwhile back in the real world, the launch of the Long Term Survivors Study and Network, generating data about people diagnosed seven years and more and eschewing the conventional medical paradigm, opens the way for a fuller understanding of the good news that for a growing number of people, time is already on their side.

As usual we welcome your letters, contributions and comments. Happy reading!

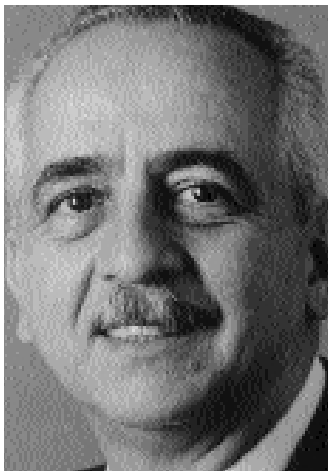

Photo : courtesy of the author

Milking the Market

Will mothers dish out the W.H.O. formula?

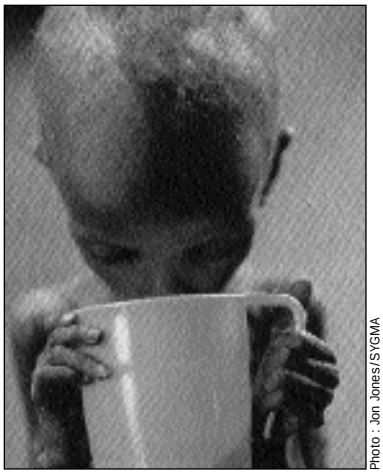

Photo : Jon Jones/SYGMA

Roberto Giraldo

Joseph Lelyveld, Executive Editor
The New York Times
229 West 43rd Street
New York, NY 10036-3959

Dear Mister Lelyveld:

I am a physician trained in Internal Medicine and Tropical Diseases, with more than 30 years experience in clinical, academic, and research activities in different aspects of infectious and immunological diseases in Europe, South America and United States. I have been an independent researcher in the field of AIDS for the past 15 years and recently published a book entitled AIDS and Stressors.

In regard to the article AIDS Brings Shift on Breast-Feeding. To Combat AIDS, the UN Now Cautions on Breast-Feeding, written by your reporter Dr. Lawrence K. Altman and published in The New York Times on Sunday July 26, I would like to make the following comments:

1. Breast-feeding is the best choice. I have always been a supporter of infant breast-feeding. My reasons for supporting this practice are many including those fine ones listed in The New York Times' article "that breast-feeding is the easiest and best source of nutrition for an infant, promotes bonding between the mother and infant, allows for a newborn's natural reflex to suckle, provides longer spacing between births, and protects against many life-threatening infections in the first few months of life." Accordingly, I have serious questions regarding the heavy emphasis given by UNAIDS on the issue of HIV and breast-feeding during the recent 12th World AIDS Conference in Geneva. Like Dr. Altman, I attended this meeting. I listened carefully to all that the researchers reported there about HIV and pregnancy, HIV and breast-feeding, and HIV and children's AIDS. Unfortunately, I heard only a great deal of unproved hypothesis, assumptions, and beliefs and very little or nothing of scientific facts.

Designating infant breast-feeding as a dangerous practice during this AIDS era does not make sense to me. For millennia human beings have been practising infant breast-feeding as an important means to preserve our species. All other species of mammals do so. For what reason should mother's milk now become a threat to infants? This is not logic at all.

Dr. Kevin M. de Cock, the AIDS expert at the Centers for Disease Control and Prevention in Atlanta is right when he says that "For large agencies that have worked hard and long promoting breast-feeding to say that women with HIV should avoid it, if possible, has been a very difficult policy pill to swallow."

2. The hypothesis of the transmission of HIV through breast milk is unproved.

I studied in detail the document "HIV and Infant Feeding" written in May of this year, and provided by the WHO, UNICEF and UNAIDS, all agencies of the United Nations. I found this document to contain much contradictory information. It is full of assumptions and beliefs. It has not a single scientific proof for the hypothesis that children can get HIV through the breast milk of their mothers. This is simply an unproved hypothesis.

Neither UNAIDS at the Geneva World AIDS Conference, nor the United Nations document, answer the following basic questions:

a) What is the scientific evidence or proof for the hypothesis that HIV can be present in the breast milk of mothers ? Is there any scientific publication that could confirm in an objective way the belief that HIV can be present in the breast milk ? The UN does not provide the scientific proof for this hypothesis. This is still a hypothesis based on anecdotal data.

b) What are the tests that the researchers are doing to prove the presence of HIV in breast milk ? The UN does not answer this question, and as far as I understand, the tests to detect the presence of HIV in breast milk are similar to the ones that are used to diagnose the presence of HIV in blood or in other body fluids.

c) Is there any scientific evidence or proof to confirm the hypothesis that HIV can be transmitted from mother to child through breast milk ? The UN does not provide any objective evidence to confirm this hypothesis. This is still an assumption or unproved belief, rather than a confirmed fact.

However, it is common to see phrases like the ones published in The New York Times' article, "The United Nations directive advises that HIV infected women be informed of the risks of breast-feeding before deciding whether to let a newborn suckle." But where are the scientific proofs for those "risks"? Even more, in the same article Dr. Peter Piot, the executive director of UNAIDS, the agency that has pushed hardest to discourage infected mothers from breast-feeding, refers to the issue saying things like "breast-feeding could kill their babies," but where is the well controlled scientific investigation that can support this affirmation in reality?

Also it would be good to see the scientific basis that Dr. Bernhard Schwartlander, the chief epidemiologist for UNAIDS, has to tell your reporter Dr. Altman that "Last year, breast-feeding accounted for up to a third of the 600,000 children in the world who became HIV infected," and that "from 1992 through last month, up to one million babies in the world had become HIV-infected through breast-feeding." I have not been able to find any scientific

publication that could provide an objective proof for these assertions.

Also in The New York Times' article Dr. Altman claims that "In 1992, the United Nations first confirmed that mother's milk could transmit the AIDS virus." I would really appreciate Dr. Altman or any other person from the scientific department of your prestigious newspaper, providing me with the scientific basis for this affirmation.

d) Is there any scientific evidence or proof to confirm the hypothesis that babies who tested HIV positive after practicing breast-feeding, will get AIDS or any other life-threatening disease ? The UN does not provide any scientific evidence to confirm this hypothesis. This is still an unproved belief.

e) Is there any scientific explanation for the reason infants that did not become infected during pregnancy will become so after birth, through the breast milk of their mothers ? What is the explanation for the passage cited in The New York Times, "The very same babies spared HIV infection during pregnancy and delivery could, just a few months later, become infected through breast-feeding ?" The UN does not provide any scientific explanation for this either.

Furthermore, when one investigates this issue carefully it is easy to see that most researchers still continue to support infant breast-feeding. A comprehensive review of this matter written by Dr. S. V. Kennedy IV, a professor of Public Health at the Allegheny University of the Health Sciences, and published a month ago in the journal Medical Hypothesis, states "A recent analysis of the MEDLINE database of articles compiled by the National Library of Medicine (1985-95) revealed approximately 167 publications with HIV, breast milk and breast feeding as the common denominators, and interestingly, of the 20 articles representing adequate reviews of the key words, none conclusively documented a transmission rate above 35% (median 21%). Few citations mentioned the presence of antibodies and anti-HIV properties, and over 90% advocated the value of breast feeding despite the HIV alarm." The article also states clearly that "From the database analysis, we know that the relative role of breast feeding in the epidemiology of HIV is still uncertain," that the "epidemiological data do not lend credence to such a theory of the postnatal infectivity (of HIV) by breast milk," and that "..the documented level of infectivity, have led some researchers to believe that this pattern of transmission might have been possibly overstated and could therefore not be the intended major public health factor as classified."

Dr. Kennedy's article also expresses "we know the antiviral activities of breast milk, and possibly an anti-HIV property, present in infant's saliva." Then he concludes "taking into account the role and value of breast milk in preventing or minimizing childhood diseases like malnutrition, infections, diarrhea, and measles, in enhancing mother-to-child bonding, and in childhood nutrients, breast milk and breast-feeding should continue to be encouraged, especially in the developing countries."

3. The tests used for the diagnosis of HIV infection are not accurate.

The tests that are used more frequently to diagnosis the HIV status are the ELISA or screening test, the Western Blot or confirmatory test and the Viral Load or PCR. These are the same tests that are used to test HIV in mothers and infants and in any other persons. The problem with these tests is that when they react as positive, they cannot guarantee that the person is really infected with HIV.

As you may know, there are abundant scientific publications warning that there are more than 70 different conditions that make these tests react as positive without the person being infected with HIV. In other words that there are more than 70

reasons for false positives when testing for HIV. It is interesting to note that most of these conditions that make the tests react as positive, are present in the vast majority of the inhabitants of the underdeveloped world. Which means that in all probability, people including mothers and children, who have positive reactions to the tests for HIV in Africa, Asia, South America and the Caribbean, do so due conditions other than being infected with HIV.

With this letter I am including several scientific publications where it can be seen that these tests are neither specific nor accurate for the diagnosis of HIV infection at all. I invite AIDS researchers, health care practitioners, journalists, and lay people to study these references, specially the ones from Eleni Papadopulus-Eleopulos and her group in Perth, Australia and the ones from Christine Johnson in California. I do agree that it is shocking to find out that the diagnosis of HIV infection is based on tests that are not specific for it. The scientific information tells us that a person reacting as positive in the tests for HIV does not mean that he or she is infected with HIV at all.

Furthermore, the pharmaceutical companies that make and commercialize the kits for these tests know the inaccuracy of them, and this is why in the inserts that come with the kits they typically write the following: "Elisa testing alone cannot be used to diagnose AIDS, even if the recommended investigation of reactive specimens suggests a high probability that the antibody to HIV 1 is present", Abbott Laboratories, 1994, 66-2333/R4. The insert for one of the kits for administering the Western Blot warns "Do not use this kit as the sole basis of diagnosis of HIV-1 infection", Epitope/Organon Teknika Corporation, PN201-3039 Revision # 6. The insert that comes with a popular kit to run viral load warns "The Amplicor HIV-1 Monitor test is not intended to be used as a screening test for HIV or as a diagnostic test to confirm the presence of HIV infection", Roche Diagnostic Systems, 06/96, 13-08-83088-001. The problem is that many people do not read these kind of documents. Most AIDS researchers, health care workers, journalists, and lay people do not know these facts about the tests themselves. They have not been informed about this.

4. The United Nations recommendations upon HIV and breast-feeding.

I am particularly concerned about the two books of guidelines about breast-feeding and HIV as prepared by the United Nations. As announced in The New York Times' article, these are being sent to all governments and other policy makers and to health care workers.

The article specifically states "The United Nations is issuing recommendations intended to discourage women infected with the AIDS virus from breast-feeding." And further, "It is advising governments to consider bulk purchases of formula and other milk substitutes and dispense them mainly through prescriptions." For antibody-positive mothers who choose not to breast-feed the United Nations recommends that "all countries make safe, affordable alternatives available. Among them are replacing mother's milk with commercial infant formula; home-prepared formula made from fresh or processed cow's or goat's milk that is diluted with sugar water; HIV-negative wet nurses; breast milk banks, and mother's milk that has been heated to kill HIV."

Also it is mentioned in The New York Times' article that "the United Nations intends to conduct pilot projects in 11 countries in Africa and Asia where women have high infection rates, and it is seeking donations from governments and foundations to pay for them." "The Aim of the pilot projects is to expand HIV testing and counseling to introduce replacement feeding, short course AZT therapy and a number of other measures."

I think it is still too early to spread

recommendations all over the world about an issue that is not as yet scientifically transparent. It is like putting the cart before the horse, or like soldiers starting to shoot while waiting for confirmation of their superior's orders. There is no excuse to act in such desperate manner where people's and especially infant's lives are at stake without adequate scientific proof especially in these days of extraordinary resources for achieving such proof. The issue of HIV and breast-feeding has to do with our future generations, it has to do with the future of our species. In this issue we must demand serenity and more temperate thinking in the evaluation of the scientific information.

5. AIDS and psychoneuroimmunology.

AIDS and HIV positive results are substantial sources of fright and fear. It is not necessary to give people more sources of mental distress, specially with issues that are not scientifically demonstrated, as is the case with the unproved hypothesis of postnatal transmission of HIV from mother to child through breast-feeding.

Now in the time of AIDS we all may remember that fear, anxiety, depression, and panic, are all well known sources of immunosuppression. Since the times of Galen it has been in public domain that the mind can influence the body and the immune responsiveness in particular. Currently, the science of psychoneuroimmunology is providing us with scientific evidence of the serious negative influence of fright, fear, worry or even apprehensiveness on our immune systems.

It is important to keep in mind that the issue of mental stress as an immunodepresive agent has been addressed many times in relation to the onset, course, and prognosis of AIDS. Mental stress is an important real risk factor in the pathogenesis of AIDS. Professor Luc Montagnier himself, the discoverer of HIV, warns "AIDS does not inevitably lead to death. It's very important to tell this to people. Psychological factors are critical in supporting immune function. If you suppress this psychological support by telling someone he's condemned to die, your words alone will have condemned him."

There is no need to bring more risk factors to increase the AIDS epidemic. HIV and AIDS are stigmatizing people and communities all over the world. People that are so called "HIV positive" or that have been otherwise diagnosed with AIDS are living in a calvary. We have the responsibility not to add to their pain. We must stop adding more fuel to the fire.

With the level of scientific information that we currently have, statements and recommendations claiming infant breast-feeding as dangerous or potentially lethal should not be introduced.

Mr. Lelyveld, mothers and all other readers of The New York Times, have the right to know these facts. I would appreciate it if you could publish this letter in your prestigious newspaper together with the scientific citations and references that I provide in it. People also have the right to know the scientific sources of the information about which they are being informed.

With all my best wishes,

Roberto A. Giraldo, MD, IMS, MSc (CTM)

Independent AIDS Researcher
Long Island City, NY 11106
E mail: rgiraldo@cdiusa.com

This letter was submitted by Dr Giraldo to the New York Times**, which declined to publish it.**

cc.

W.H.O. (The World Health Organization), 20 Avenue Appia, CH 1211, Geneva 27, Switzerland.

UNAIDS (Join United Nations Program on HIV and AIDS), 20 Avenue Appia, CH 1211, Geneva 27, Switzerland.

UNICEF (United Nations International Children Emergency Found), 3 United Nations Plaza, New York, NY 10017.

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Existence of 'hiv' disputed: where to from here?

An open letter from the secretary general of IFAS

Michael Baumgartner

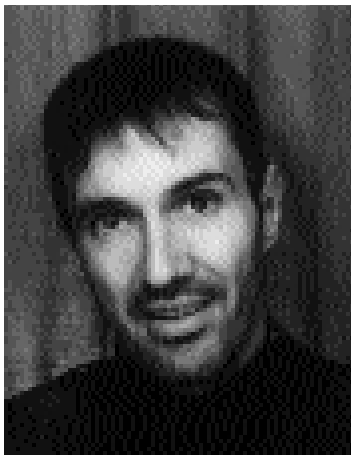


Photo : courtesy of the author

At the 12th World AIDS Conference held in Geneva this past June/July a panel of independent scientists led by Eleni Papadopulos-Eleopulos, biophysicist from Perth Australia and chairwoman of the Board of Scientists of The International Forum for Accessible Science (IFAS) demonstrated in the presence of the Chairman of the Geneva World AIDS Conference, Prof. Bernard Hirschel, that:

1. To date there has been no isolation of a "human immunodeficiency virus" commonly known as hiv, according to the scientifically approved standards for retroviral isolation which require:

a) Purification in sucrose density gradient and banding at the density of 1.16g/ml

b) Morphological identification of the 1.16 banded material using electron microscopy

c) Introduction of PURE particles into a virgin culture and, by repeating the above steps, demonstration that identical particles are produced.

The existence of the "human immunodeficiency virus" must therefore be called into question.

2. None of the indirect markers (reverse transcriptase, antibodies, "virus proteins") seen in human subjects labelled "hiv positive" and/or as having aids is specific and proves infection with the alleged cause of the conditions labelled aids.

3. Due to lack of "hiv" isolation, and due to the fact that there still does not exist a sound demonstration in medical literature proving that a retrovirus named "hiv" is the cause of what is named aids, the "hiv-aids hypothesis" must be considered unproved.

4. Epidemiological data does not support the predictions made in 1984 that the conditions labelled aids were caused by a new specific retrovirus, transmissible by sexual intercourse, inevitably fatal and spreading uncontrollably in the general population, culminating in a global pandemic. Independent epidemiological research together with the passage of time has since shown that this hypothesis and the ensuing predictions are wrong.

Until there is a full reappraisal of the "hiv-aids hypothesis" by an international independent scientific committee, having due regard to qualified scientific dissenting opinions and supported by appropriate data, with acknowledgement of past mistakes, IFAS places the following requests to the WHO, UNAIDS, and national health authorities:

1. All currently used and erroneously labelled "hiv-antibody" and "viral load" tests be immediately suspended, including all plans and policies for mass and mandatory testing - e.g. the possibility of testing all pregnant women in the US by the year 2000 - pending an international inquiry into the alleged non-specific nature of these tests.

2. Studies to be carried out evaluating a possible relation between an erroneously labelled "hiv positive" diagnosis and being at higher risk for illness.

3. All erroneously labelled "anti-hiv treatments" immediately be stopped if their sole target is "hiv", unless it can be shown that they have beneficial clinical effects which outweigh any deleterious effect on humans and that the same clinical effects cannot be obtained by less toxic agents.

Every physician has a duty of care to his/her patients. This includes the provision of information that individuals may deem necessary to determine whether or not they will accept a diagnosis, treatment and prognosis from their doctors. However, at present, the monopoly of the "hiv/aids" hypothesis is denying physicians, and hence their patients, access to information profoundly pertinent to their situation. This practice is undemocratic and quite contrary to all ethical principles and in violation of guideline 6 (a) of the International UN-guidelines on hiv/aids and Human Rights which says "Laws and/or regulations should be enacted to enable implementation of the policy of widespread provision of information about hiv/aids through the mass media. This information should be aimed at the general public as well as at various vulnerable groups that may have difficulty in accessing such information. Hiv/aids information should be effective for its designed audience and not be inappropriately subject to censorship or other broadcasting standards." Given the problematic nature of "hiv", withholding crucial information is capable of causing great harm to millions of people.

If the international establishment, which propagates the belief that "hiv" is the cause of the conditions called aids as if it were a scientific fact and as if "hiv" had been isolated, were to continue to ignore all the data telling otherwise, it would abuse vulnerable human beings as experimental subjects, in violation of guideline 1 of the International Ethical Guidelines for Biomedical Research Involving Human Subjects, which says: "...the investigator must obtain the informed consent of the prospective subject...", describing "informed consent" as "given by a competent individual who has received the necessary information and has adequately understood the information"; and would therefore expose itself to legal action on the grounds of these and other human rights violations.

IFAS calls on the independent scientific community to request clarification from the Pasteur Institute, where contradictory claims regarding "hiv", the alleged virus suggested to cause aids, have been issued, taking into account the above-mentioned issues raised at the 12th World AIDS Conference in Geneva.

Until the requested scientific clarification has occurred IFAS suggests when referring to "hiv", to do so as "the alleged retrovirus suggested to cause aids."

Do not encourage any more damage due to insufficient scientific conclusions and always point out the conclusions drawn by a panel of independent scientists as outlined above, referring to "hiv" no longer as an entity - and where possible in lower case letters not to emphasize the dogma - and in quotation marks since its existence and therefore its causative role in the illnesses associated as Aids is not proven, even after 15 years of hypothesised science and billions of dollars spent.

Errare humanum est sed diabolicum perseverare
(Making mistakes is human, upholding them is evil)

Eruptive truth speaking at Geneva

Alex Russell

Photo : Tony Tompsett

"Isn't power simply a form of war-like domination? Shouldn't one therefore conceive all problems of power in terms of relations of war? Who wages war against whom?...What is the relevance of concepts of tactics and strategy for analysing structures and political processes? What is the essence and mode of transformation of power relations?" **Power/Knowledge, Michel Foucault. 1980.**

"When God and the gods are dead...and when the will to power is deliberately willed as the principle of all positing of the conditions governing whatever is, i.e., as the principle of value-positing, then dominion over the earth passes to the new willing of man determined by the will to power." **The Question Concerning Technology, Martin Heidegger.**

The Non Existence of 'hiv' as a Politics of Truth

The Knowledge that 'HIV' does not exist (as a 'Politics of Truth') is not anterior to the episteme of the 'HIV' Regime but a product of it. The episteme is the condition of possibility of discourse in a given period; it is an a priori set of rules of formation that allow discourses to function, that allow different objects and different themes to be spoken at one time but not at another.

This 'set of rules' of the 'HIV' episteme was contested not only by Eleni Eleopulos and the Perth Group at the IFAS Session at the 12th AIDS Conference, Geneva, but also inadvertently by Robert Gallo, Anthony Fauci and Dr. David Ho (among others) in that their very discourse was deconstructing the 'set of rules' that constitute and legitimate the 'HIV' episteme.

That is, the non-existence of 'HIV' was confirmed by Gallo, Fauci, and Ho through what may be termed as 'auto-deconstruction' where their 'HIV' discourse 'undoes itself' through its arcane 'metaphysical' rhetoric. The 'HIV' episteme, as a 'Will to Metaphysics', is what Heidegger would nominate as 'an Enquiry into Nothing'. The 'HIV' Regime, as a 'Will to Power', takes on what Fredrich Nietzsche designates as 'Reactive Forces': herd and slave-morality; a will to annihilation, a will to nothingness.

The main thrust of the Geneva Press Conferences consisted of 'hiv/aids' analysts/activists deconstructing 'HIV'™ with panel members reconfirming the non-existence of 'HIV' albeit in a 'subconscious' and 'unintended' manner. Deconstruction is the unveiling of a phenomenon until its foundations have been revealed by teasing out the basic 'ground-figures' on which a discourse of a text is constructed. Philosopher Jacques Derrida argues that when deconstruction is applied to a metaphysical text (e.g. the 'hiv/aids' hypothesis) the aim is to show that the central themes of the text, which supposedly denote 'real' entities, essences or presences, are merely meaning-empty products, synthetic constructs signifying nothing. It is the very metaphysical, fantastic, amorphous and nebulous language of the 'HIV' episteme that deconstructs 'hiv' into oblivion. The 'HIV' episteme sows the seeds for its own destruction by both the proponents and the critics of the 'hiv' hypothesis.

Deconstructive criticism takes apart the overdetermined acronym 'HIV' by breaking down the non-specific materials (proteins, etc.) that are said to constitute 'hiv'. The epistemological object 'HIV' is constituted and constructed by scientific 'practices' (surrogate markers, i.e. viral-load tests, etc.). Nietzsche argues that "meanings" ascribed to 'objects' (such as 'HIV') are dependent upon "those in power": "Everything that exists, no matter what its origin, is periodically reinterpreted by those in power in terms of fresh intentions;...in turn, all outstripping and overcoming means reinterpretation, rearrangement, in the course of which earlier meaning and purpose are necessarily either obscured or lost...While forms are fluid, their 'meaning' is even more so". (Nietzsche, Genealogy of Morals).

Two of the most 'authoritative' deconstructions of 'hiv' were published in the eminent journal Virology, Vol. 230, 1997 by P. Gluschankof et al (Cell Membrane Vesicles Are a Major Contaminant of Gradient-Enriched Human Immunodeficiency Virus Type-1 Preparations), and J. Bess et al (Microvesicles Are a Source of Contaminating Cellular Proteins Found in Purified HIV-1 Preparations). One suspects that the authors are fully aware of the staggering implications of their findings but may have felt obliged to keep 'HIV-1 Preparations' in the titles of their papers: it is clear from the title-headings of both papers that they did not in fact have "Gradient-Enriched Human Immunodeficiency Virus Type-1 Preparations" or "Purified HIV-1 Preparations". The titles of these papers are a contradiction-in-terms: both teams conclude that there is no such entity as 'purified HIV', therefore no proof of 'HIV'. Fig. 3 of the Bess et al paper had a further contradictory caption: "Purified HIV-1 (MN)H9 containing some mature viruses and numerous non-viral particles (presumably microvesicles)". Bess et al conclude their paper cautiously: "The presence of microvesicles in purified retroviruses has practical implications...".

Journals like Nature, Science, New England Journal of Medicine, British Medical Journal and The Lancet uncritically endorse, promote and legitimate the 'HIV' episteme through publishing a never ending production-line of disingenuous 'hiv' discourse. Foucault states: "It is a question of what governs statements, and the way in which they govern each other so as to constitute a set of propositions which are scientifically acceptable, and hence capable of being verified or falsified by scientific procedures. In short, there is a problem of the regime, the politics of a scientific statement. At

this level it's not so much a matter of knowing what external power imposes itself on science, as of what effects of power circulate among scientific statements, what constitutes, as it were, their internal regime of power, and how and why at certain moments that regime undergoes a global modification." It is the "internal regime of power" (politics/profit/prestige) that 'legitimate' the 'scientific statements' of the 'hiv' episteme. While 'HIV' does not exist, budding retrovirologists needed it to exist to sustain their existence, the very raison d'etre of their own long-term survival. HIV™, SIV™, BIV™, FIV™, MIV™ are artifacts of the retroviral-episteme. The very technology (electron-microscopy) that constructed them can also be used to deconstruct them. Why was it that only when hypothetical 'retroviruses' became 'known' ('knowledge') did they then have the 'power' to (allegedly) become 'pathogenic' ? Hence, 'retroviruses' waited thousands of years - (for the right technology to be put in place to 'identify' them) - before 'choosing' to cause 'disease'! As Alessandra Tanesini states: "We now inhabit a world populated by biological entities that have literally been made in laboratories." (Tanesini, The culture of biotechnology, Radical Philosophy, No.91, Sept./Oct., 1998).

Micro Power contra Macro Power at Geneva

"I have attended, as a reporter, eight International AIDS Conferences. They are uniformly awful, a total waste of a journalist's time. Mostly I go just to fortify my belief that AIDS - the entire industry and social machinery of it - is at its root a totalitarian system. By that, I mean that there is a central ideology that seeks to enforce its domination by methodically obstructing any ideas that run counter to it." **Celia Farber,** Impressions Magazine**.**

For Foucault, power operates from the 'micro' - "the smallest elements in the social body" - to the 'macro' - "ever more general mechanisms and forms of global domination". The 'macro' power-block that constitutes 'HIV' Imperialism Inc. includes: UNAIDS, WHO, CDC, World Bank and Pharmaceutical Multinationals. The 12th AIDS Conference logo - Bridging the Gap - was an apt metaphor for 'HIV' Pharmaceutical Colonialism's greed in gouging out new markets in the 'third world'. While the 'HIV' Regime has the ethos of a totalitarian one party-state seeking global domination (aka: the 'Geneva' Syndicate) its grip is never complete and total. Power is always productive: it produces counter-discourses, counter-strategies and counter-truths. The power-relations that constitute the 'HIV' Regime are not merely dominating but potentially liberating, engendering a multiplicity of relations that constantly resist those forces of 'subjection' and 'domination'. Power is constructed and functions out of the effects of powers. Both 'macro-power' and 'micro-power' blocks filter/feed off each other, become dependent upon each other. While the 'HIV' Regime imposes 'disciplinary-power' on 'subjects' it also throws-up mass-resistance in the form of 'Anti-HIV' Activist-analysts. Resistances are always already implicated in power relations; where there is power there is resistance. The 'Anti-HIV' Activist groups represented at Geneva included: ApS, AVES, COBBRA, Continuum, GaIA, HEAL, IFAS, Kinesis, MuM, Meditel, Regimed, TAPS. These diverse bodies formed a 'symbolic' micro power-block or what Foucault calls 'the multiplicity of micro-relations' that 'resist force' emanating from the 'HIV' Regime-episteme. Philosopher Gilles Deleuze on the power of resistance: "When power becomes bio-power, resistance becomes the power of life, a vital power that cannot be confined within species, environment or the paths of a particular diagram. Is not the force that comes from outside a certain idea of Life, a certain vitalism, in which Foucault's thought culminates? Is not life this capacity to resist force?" (Foucault, Gilles Deleuze 1988).

However, resistances can easily be 'contained' as was demonstrated in Geneva where 'aids-reactivists' Act Up Paris played into the hands of drug cartel Merck, Sharp & Dohme. The media reported that Act Up Paris trashed and graffitied Merck's booth demanding the company cut its prices to the 'developing world'. However, Palexpo security informed me that Act Up Paris had "collaborated" with Merck to stage the demonstration publicity-stunt on condition that no harm came to Merck's employees.

Michel Foucault: "Resistances are all the more real and effective because they are formed right at the point where relations of power are exercised." Power and Strategies, Power/Knowledge.

The 'HIV' Regime constructs 'hegemonic-identities' ('pathologised-subjects') through what Foucault designates as 'technologies of power' - 'disciplinary mechanisms' of 'subjection' and 'surveillance'. Many people are 'willing' to be 'subjugated' and 'interpellated' as 'HIV+' because this 'bio-subjectivity' constitutes a 'technology of the self' where the individual undergoes an 'imaginary' self-transformation. This gives the illusion of 'autonomy' and 'control' over one's body. The 'HIV' Apparatus, as a "disciplinary punitive regime", imposes routinized modes of behaviour that are so deeply inscribed on the body by disciplinary modes of power that they seem to be 'normal' and 'natural'; or what Foucault terms a 'normalising force'. Foucault uses the term "bio-power" to "designate what brought life and its mechanisms into the realm of explicit calculations and made power-knowledge an agent of transformation of human life." (History of Sexuality, Vol.1) This can be seen in the "disciplinary technologies of the body" or "regulatory procedures" such as 'hiv' testing, viral-load/CD4/CD8 counting and 'antiretoviral' drug-trials: ('bio-power-implantations'). Those 'interpellated' as 'HIV+' become an ensemble of 'sub-individuals' (constructs of 'power/knowledge'). It is the 'hiv/aids' institutional-medical apparatus ('bio-power') that constitutes and circulates the body/knowledge/power triad. Foucault states: "It is the apparatus as a whole that produces 'power' and distributes individuals in this permanent and continuous field...Discipline makes possible the operation of relational power..." (Discipline and Punish, 176-177).

The Palexpo Media tent disseminated another form of 'disciplinary subjugation' in the form of 'misinformation control'. The rise of 'hiv'-misinformational machines (world-wide-web/internet) implements a more insidious mode of subjection: the power of electronic seduction enticing the conference journalists into the insane nightmare of 'hiv'-virtuality. It is as if the 'hiv' reterritorialization-globalization networks were running by their own volition; it is the 'hiv-technomachine' and 'hiv misinformation' internet networks that are the uncontrollable 'virtual epidemics'. As Celia Farber observed: "Each morning in the media room, envelopes were laid out by pharmaceutical reps, addressed to the reporters from all the major news papers. You'd see them open the envelopes, walk over to a laptop and start

typing." (Impressions Magazine, 1998).

Parrhesia at Geneva

"Who is able to tell the truth...About what topics is it important to tell the truth?...What are the consequences of telling the truth? What is the relation between the activity of truth-telling and the exercise of power?..Truth does not belong to the order of power, but shares an original affinity with freedom: traditional themes in philosophy, which a 'political history of truth' would have to overturn by showing that truth is not by nature free but that its production is thoroughly imbued with relations of power." Discourse and Truth: The Problematization of Parrhesia, and History of Sexuality, Vol. 1; Michel Foucault.

Foucault adapted the ancient practice of 'parrhesia' (from the Greek 'free speech') as a specific form of counter-truth or what he terms "truth-speaking". This must not be confused with the liberal-humanist concept of 'freedom of speech' which is 'contained' and 'non-threatening'. The danger associated with the act of parrhesia distinguishes it from the 'safe' forms of 'truth-speaking' which do not put the speaker at risk.

Parrhesia takes place when someone in authority is confronted with a dangerous truth and where the safety of the individual who speaks/writes this truth is not assured. The parrhesiastic act opens up a space of truth that was not there before. Foucault calls it a kind of "eruptive truth-speaking" in which a breach is caused. For Foucault, critique, as 'a politics of truth', is a liberating strategy. "Critique is the movement by which the subject gives himself the right to question truth on its effects of power and question power on its discourses of truth. Critique will be the art of voluntary insubordination, that of reflected intractability. Critique would essentially ensure the desubjugation of the subject in the context of what we could call, in a word, the politics of truth." Foucault insists that the act of parrhesia is not merely "free speech but frank speech in the face of danger". The parrhesian act is played out in a conflictual context.

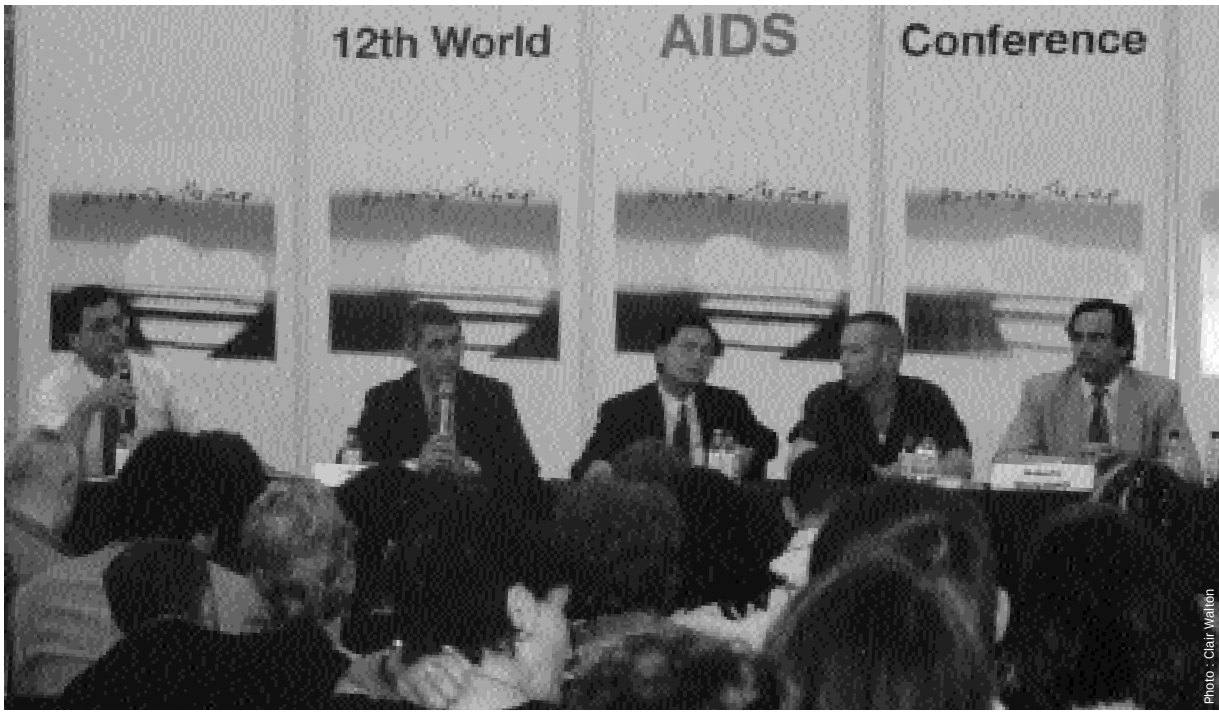


Photo : Clair Watton

l - r : Conference Chairman Bernard Hirschel, Anthony Fauci, David Ho, Mark Harrington (TAG), unknown. Harrington asked hiv/aids analysts: "Why don't you people have your own conference? Why do you have to come here?"

At the 12th AIDS Conference parrhesian acts were performed by 'hiv/aids' activists and analysts "in the face of danger" and hostility. Journalist Celia Farber wrote on parrhesia: "I've seen guards called in and seen one journalist expelled from the country ...because he asked questions the AIDS establishment didn't like. These conferences are about the enforcement of an ideology - not the questioning of it". Farber attended a panel discussion at Geneva on 'AIDS and Media Responsibility' and reported: "I finally couldn't stand it anymore, and I went to the microphone. 'The problem,' I told them, 'is this kind of talk, all this talk about responsibility. There is no responsibility, no more and no less than any other story. The only responsibility a journalist has is to investigate, to report. We are not Boy Scouts or missionaries or agents of the greater good. We are journalists'. They shut my mike off. A woman from the panel who was from a small West Indian island came up to me and said: 'I think I know what you mean. I keep hearing that in my country we have over 400 cases of AIDS and that the numbers are growing, but it's not true. We have about 18 cases. But if I say that, they tell me it's irresponsible.' She laughed. 'Is that what you mean?' I told her that's exactly what I mean...". (Impressions Magazine, 1998).

Author John Lauritsen's parrhesia to Dr. David Ho: "The viral load tests have been severely criticised. Mathematicians have described the math in the original studies as not only incorrect but disgracefully so. Kary Mullis, who received the Nobel Prize for inventing the polymerase chain reaction test condemned the viral load test and stated 'Quantitative PCR is an oxymoron' Your open sink model has been rejected and ridiculed by those who accept and also reject the hiv/aids hypothesis. Molecular biologists have concluded that there is no cell-free virus whatsoever in plasma where the viral load tests claim there were counts in the tens of thousands. In summary is there any reason at all not to classify the viral load tests as junk science?"

Dr. David Ho nervously responded with weak obfuscation: "Again...again to be accurate, it's many methods, not just PCR but other amplification tests that do not depend on PCR have generated some of the data, and many other methodologies have been employed to quantify virus and I think, I think some of the people you've cited should go and read the basic literature, substantiating these effects." Like a politician, Dr. Ho answered the question without answering the question. Huw Christie of Continuum tried to get Dr. Ho 'to talk': "My question is why has there never been a demonstration of viraemia without using PCR? If people have a viral load of 200,000 per millilitre, it should be possible, shouldn't it, to demonstrate particles, viraemia? Why is it necessary to use a technique which is designed for amplification of numbers?" Again, Dr. Ho answered with a non-answer: "This indeed has been supported by other forms of assays, including assays that do not amplify the target that you're trying to measure. For example, using that branch chain DNA technology the same type of results have been generated, and compared head to head and published in numerous scientific papers". Christie replied, "But wouldn't you expect to be able demonstrate just actual viraemia as you do with other viral conditions, these photographs we're all used to seeing, a field full of morphologically similar particles, thousands and thousands. Where are those pictures for HIV?" Dr. Ho replied anxiously: "I think it's a matter of numbers. If we take a plasma that has lots of virus, if we want to concentrate by spinning real hard, and pellet down the virus, and go take a picture of that, it's possible through the electronmicroscopy to visualise it but it's not a practical thing one could do on patients." Christie asked again: "But once at least, once at least, to satisfy..." Suddenly Dr. Ho's henchman, Mark

Harrington, (Treatment Action Group, N.Y.), fielded the question and cut him off at the pass. Harrington was so angered by this 'eruptive truth speaking' he shouted: "Why don't you people have your own conference? Why do you have to come here?"

In the Palexpo Media tent I met Harrington and handed him a leaflet for the IFAS Session on the non-specificity of 'HIV' testing. He read the flyer and flew into a rage shouting inanities. I asked him if he could prove he was 'HIV+'. Harrington barked back: "What about PCR?" I responded: "Kary Mullis, inventor of PCR, argues that one cannot use PCR to measure viral load". Harrington covered his ears and legged it fast shouting: "He's wrong!".

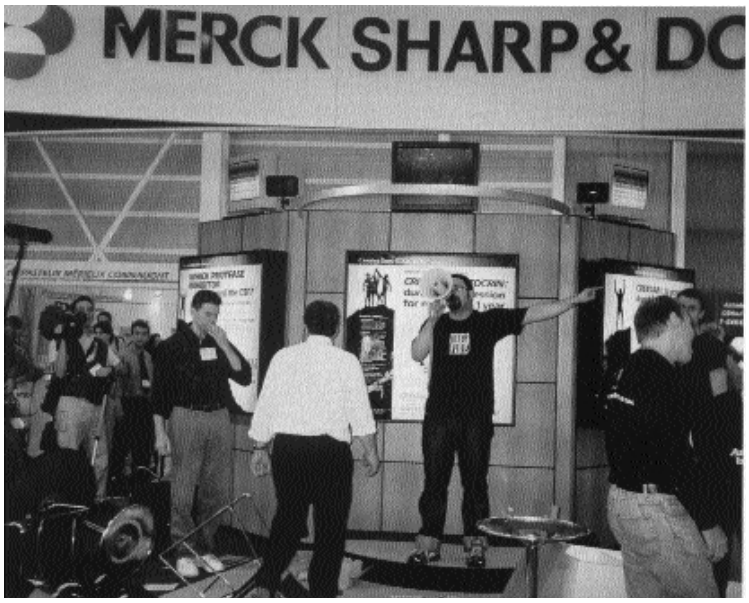
Dr. Stefan Lanka's parrhesia to Dr. Robert Gallo: "What about hydrocortisone? Why haven't you published that you added hydrocortisone to your cell cultures?" This question threw Gallo, who misjudged the staggering implications of this eruptive 'parrhesia' and replied: "I don't understand what you're talking about. Hydrocortisone is not added to the typical cultures of isolating hiv. It was done in very preliminary experiments to augment metabolism in certain ways...it was to test an idea...but its triviality...why do you want to know the answer to that? If I can be honest folks, I can smell something behind the question but I'm not sure what...I know hiv doesn't cause aids, ok..." Gallo responded by putting on an absurd Groucho Marx accent.

But in reality hydrocortisone heavily suppresses cell activity. Then the cells release certain stress proteins that normally are not present. Dr. Gallo for the first time publicly admitted that he increased the production of stress-protein with a suppressor of the cell metabolism that he presented as a stimulant. Laurie Garrett, HIV™ propagandist, and a member of the 'Bob Club' (Gallo's 'inner-circle'), became hysterical when she imagined 'her chair' at a press conference had been 'taken' by Patrick Brough (Meditel). She screamed "Fuck you!" to Brough who responded: "No thanks!" She threw her two bags and papers to the wall and collapsed in a heap on the floor. After this press conference, Hector Geildemeister (Meditel) bumped into Garrett and said: "Is madness in the family? Are you always this hysterical?" Garrett yelled back: "Why do you people come here? We don't want your kind here! Leave us alone!" Garrett was seen "sighing and rolling her eyes in exasperation" when Lauritsen, DiFerdinando and Christie were challenging David Ho and Anthony Fauci at a press conference on PCR and 'hiv' science. Garrett walked up to Dr. Fauci and whispered audibly: "How do these people get press passes? We have to do something about this!"

Huw Christie's parrhesian interviews with Gallo and Fauci were met with defensive and grotesquely embarrassing answers; when it comes to avoiding the issue these 'veterans' know all the tricks. Meanwhile, hunger strikers outside the Palexpo Arena demanded Bernard Hirschel, Conference Chairman, provide proof for the existence of HIV™ with the following press release: "We demand the President of this Congress provide proof for the existence of 'HIV': the scientific articles that may be quoted as original references as proof of the isolation of 'HIV' - including characterisation of the 'HIV proteins' and of the 'HIV genetic material' which are essential to viral isolation. If we do not receive this proof, tomorrow we will continue our hunger strike in front of the Arena (Palexpo). We ask more people to join us, more associations to support our hunger strike and journalists to inform of our action." : (Maria José, Spain; Guadalupe, Spain; Enrique, Argentina). The hunger strikers were willing to put their lives at risk with their 'eruptive truth-speaking'. When Lluis Botinas (Co-ordinator, COBRA, Spain) asked at a press conference: "Shall you present to the hunger strikers the scientific proof of the existence of HIV, Dr Gallo?", Dr. Gallo's response was: "Shut up!"

On the sixth day of the hunger strike (3rd July) the following press release was distributed amongst journalists and delegates in the Palexpo Media tent by COBBRA and Continuum activists: "We have come to the conclusion that 'HIV' has never been isolated. That means that nobody can affirm the existence of 'HIV'...Today our hunger strike has empowered our position. Neither the President nor the other 'AIDS specialists' has provided the scientific proof we ask for. Besides Dr. Gallo has revealed himself as a cheater. So after seeing how the principal inventor of 'HIV' acts and how the journalists who were attending the conference didn't react, we decide to finish our hunger strike."

On Tuesday, June 30th, Session Hall VII, the satellite meeting 'Towards New Types of AIDS Vaccines: Lessons from Naturally HIV Resistant Individuals' was Chaired by Prof. Luc Montagnier. Before an almost empty hall, Montagnier stated that "no virus in history was 100% fatal and 50% of those diagnosed as hiv+ may never develop aids...". Once the first speaker had begun, Stefan Lanka and I went up to the empty panel and handed the somewhat 'isolated' Montagnier a document entitled: 'Three Open Questions to Prof. Dr. Luc Montagnier' which he then began to read looking nervous and bewildered. Here is an extract to which he did not respond: "In 1993 Eleni Papadopulos-Eleopulos published a study about HIV-antibody tests in the journal Bio/Technology. It is claimed that prior to publication the study had been approved by the Pasteur-Institute in which you are working... Papadopulos-Eleopulos draws the scientific conclusion that the existing HIV-antibody tests, due to lack of complete isolation are not reliable... Professor Montagnier, is it true that your institute had approved the study of Papadopulos-Eleopulos prior to publication or is this wrongly claimed?" (Dr. Stefan Lanka).



"Act Up Paris had 'collaborated' with Merck to stage a demonstration publicity-stunt on condition that no harm came to Merck's employees."

At the closing press conference I asked Dr. Hirschel and Dr. Richard Horton, editor of The Lancet: "The current indirect HIV tests and PCR are not sufficient proof that HIV has been isolated. Where is the proof that HIV exists?" None of the panel answered. The ethos of the Geneva Conference was 'HIV' Totalitarian Real Politics, best summed up by Gore Vidal: "What is real politics? Who collects what money from whom to spend on whom for what. That's all there is to it, but no politician in the United States dares address that subject for fear we'll discover who bought him and for how much." (Gore Vidal , The Independent, 19th August,'98.) A digital counter placed on the stage for the closing ceremony ticked off, in bright red figures, the numbers of people around the world alleged to be "infected with HIV". As the meeting ended and delegates filed out of the conference hall, the 'hiv virtuality' counter reached 33,535,780 and kept ticking. In reality, this virtual clock was a cash register ticking up the global 'epidemic' profits of 'HIV' Colonialism Inc. And it kept on ticking.

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Gay Games people play

Michael Baumgartner took his Continuum Press Pass to Amsterdam to see the international gay community in action.

It was raining men - and women - in Amsterdam, mostly gay and mostly athletic looking or athlete-wannabes. With a grand Opening Ceremony the first Gay Games to be held in Europe opened officially on Saturday August 1st at the Arena in Amsterdam. It became clear at the Opening Ceremony Amsterdam was out to beat the New York games, inviting such prominent gays as Harvey Fierstein, Jean-Paul Gaultier, Euro-Song-Contest-Winner Dana International, Italian singer Riccardo Cocciante, Dutch singer Matilda Santingas. The Weather Girls with their old-time hit "It's Raining Men" (accompanied by hundreds of dancing men) paid tribute too to the 14,715 athletes and 35,000 audience ready for a week of challenges and fun.

The first and second Gay Games were held in San Francisco in 1982 and 1986, moving to Vancouver in 1990 and then to New York in 1994 where the flag was handed over by the Gay Games Committee to the city of Amsterdam to host the fifth Games in 1998. The idea of the Gay Games as outlined by the late Tom Wadell, US Olympic Athlete and Gay Games founder, is that gays and lesbians and gay/lesbian friendly persons can join together for a week of sports and culture. Much like the original idea of the Olympic Games, to participate is more important than to win. Participants from 88 different countries therefore came to the city of Amsterdam to challenge their own limits and give their best in one of the 29 sports disciplines or the 14 artistic workshops.

With about 250,000 visitors to Amsterdam, properly functioning organisation became this week's great lack for the Dutch Gay Games Foundation, regarding the over 800 press affiliates, including many from the mainstream. The 3042 volunteers involved in organising and running the operation were often ill-prepared though tried to be as helpful as they could. I sometimes had the impression that the 62 paid staff could have done without the people, just patting each other on the shoulders. Many waiters and shop keepers I encountered did not mind the pink-guilders floating into the city that week, yet could clearly have done without the customers handing them over.

The next gay games will be held in Sydney in 2002

I was curious to find out how the issues regarding aids were knitted into this largest gay/lesbian event ever held in Europe. The introduction of the issue at the opening ceremony did not leave much hope that mature gay men were involved in addressing it. I was pleased to find ill-defined aids-discussions were rather few throughout the week and rested on the shoulders of a workshop on the human rights side of aids. However there was a coalition raising the issues of inaccessibility of "anti-hiv treatments" in most parts of the world, mostly through banners at the city opera, collecting signatures and distributing repetitive leaflets. Clearly some of the organisers of these games, gay or non-gay, were receiving funds to attempt to intimidate male love by pointing out its 'dangers', through a dancing male couple's relationship-death-struggle and an overstyled video at the opening ceremony. Apparently we live in "A world where loves scares to death." But throughout the week it seemed to me gays are weary of feeling sorry and dying for purportedly having introduced to the world "hiv", the alleged virus suggested to cause of aids. The general mood was of having moved on. I realised many may not have understood their real health hazards however: even the official Gay Games daily paper advised on drugs one should not combine with one's Poppers (amyl nitrite)! Poppers are poison!

Simultaneously with the sport events Amnesty International and Holland based HIVOS sponsored several human rights related workshops because of the 50th anniversary of the UN Declaration on Human Rights. These events were co-sponsored by US based International Gay and Lesbian Human Rights Commission (IGLHRC) and the Europe based International Lesbian and Gay Association (ILGA) and the English based group Stonewall. I do not think any participants were aware of the passing 50 years of the Universal Declaration of Human Rights nor its implications. At least here we fit in with the rest of the world.

The presentation by Stonewall on gays and lesbians and the law pointed out just how little legal protection our partnerships still have, even in most of the industrialised countries. Interesting strategies to legally combat homophobia in the working environment were outlined. An informative workshop on gay and lesbian refugees made vivid the lack of insight of professionals on the issue of immigration based on the political consequences of sexual orientation.

When finally on Wednesday "hiv", the alleged virus suggested to cause aids, and aids in relation to human rights were addressed, the low standards of organisation matched the low quality content. An all male panel faced the audience with nothing more than the quotations from old press-clips, anecdotes, and a questionable report, chorusing into the aids-establishment's lack of homosexual-specific awareness and support of aids. It resembled awfully closely a fundamentalist sect where one converted after another attempted to convert the already converted with his latest proof of worldly evil, in this case the media, governments, UNAIDS, even the participants and organisers of the gay games.

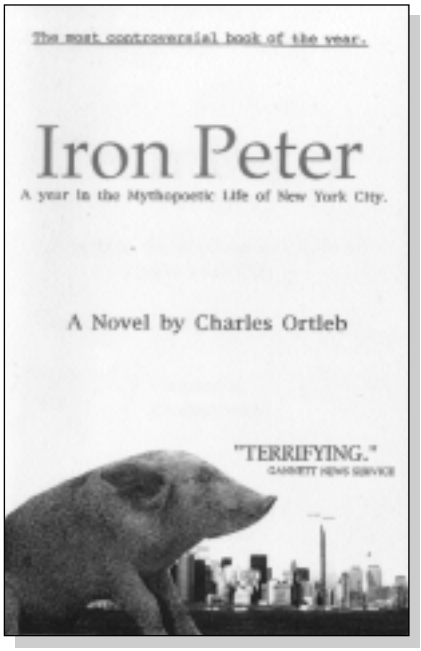
English-based Neil McKenna demanded more "gay awareness" of the aids-establishment and was supported by Robert Ostvogels, a WHO consultant on "men having sex with men" (msm), who had to confess, when confronted by the audience, that he had no hard data to back up his claim that aids in the economically deprived countries is actually also mainly due to msm which through homophobia, is underreported or falsely categorised as "heterosexual aids". The call to "re-gay" aids was challenged when it became evident that even the speakers seemed ignorant of the reality that the "western" concept of gayness is far from universal and all that derives from it - including aids policies - lacks common ground and - may I add - common sense. Ostvogels seemed a little embarrassed when caught culturally unaware, despite his world travels on WHO-money, of the issue of msm. When later representatives from Malaysia and Guatemala shared their anecdotal findings, it should have dawned on the audience that the lack of understanding of what we mean when we refer to "gay" is as great as the lack of insight into aids-related science and politics by most persons using either terminology. Not surprisingly not much came out of this seminar. Let us just hope that the "hiv" establishment is equally inefficient in turning their dangerous poison distribution deals into practice.

And when all was said and done and the Gay Games hymn was introduced to the audience at the week's Closing Ceremony, the spirits of the audience seemed already on their ways to Sydney in 2002 A.D. Who can say what changes will have happened by then?

Iron Peter: A year in the Mythopoetic Life of New York City

A Novel by **Charles Ortleb**

146 pages



Charles Ortleb, the rogue gay publisher behind such periodicals as Christopher Street, TheaterWeek, and the New York Native, was forced out of business about a year and a half ago, at the height of cocktail euphoria. What few activists were still alive in the post-AZT, cocktail era could be heard stomping their heavy boots in pure joy all over Manhattan. They'd been trying to get rid of this guy, and his "wacko" newspaper ever since he published the first interview with Peter Duesberg in 1987. When he published a series of articles by John Lauritsen and later, Neenyah Ostrom, critical of AZT, ACT UP expressed its democratic-to-a-fault ethos by declaring a boycott of The Native, never rescinded even after AZT's fall.

Undeterred Ortleb retreated to his Manhattan apartment and started writing songs, a musical, a play, and then, a novel.

Now it's his turn to turn the tables on his foes with this debut AIDS novel, Iron Peter, which feels more like a bomb than a book - utterly subversive, searing, open-eyed, and true. When you read it, you'll see why it was rejected by no less than thirty five publishers, many of them gay. (I have called this book the "Animal Farm" of the AIDS era.)

Ortleb is at his satirical, subversive best here, skewering the AIDS collaborators of the gay community with great precision, and to hilarious effect. But this is not humor as an end in itself--- the final effect is cognition, awakeness - horror, not laughter. Yet Ortleb, (who knew?), is funny as hell; I laughed out loud throughout my two readings of this weird and wonderful book - a Christmas must for the demoralized AIDS dissenter you love.

It acheives the ultimate fantasy at the end of this unbearable age of sanctimony and murder - a bone cracking Fuck You - the one you yourself never quite expressed because at some level, you too were paralyzed by the righteous superiority of the ACT UP clone.

Ortleb's protagonist 'Peter', (no relation to Duesberg) is a golden-haired Adonis who arrives in New York City , "to assassinate the AIDS epidemic." He roams through gay New York, always at the center of attention, always desired, and totally impervious. His objective: research, infiltration and subversion; he wants to see "how AIDS is hardwired into the gay psyche", and sets out on a one man crusade against the evil empire.

Ortleb is not one - to coddle his observations about the bizarre sociology and psychology of AIDS are merciless but dead on. It is as though, by using humor, at long last, Ortleb defuses the gargantuan balloon of AIDS piety. It is thrilling and reads like porn to dissident ears. Like this line: "One night, in one of his mischievous and impious experiments, Peter loudly referred to HIV as the virus that causes gas and the whole bar fell into horrified silence."

Or this scene, when Peter, who starts disseminating counter-revolutionary ideas in the "community" is attacked by an activist.

"When Peter went to pull the man's hair, he discovered to his horror that the man's hair was mobile. When the AIDS activist's toupee hit the street, Peter gasped as it revealed a tattoo on a bald head that read 'HIV Positive.' For Christ's sake, he thought. These people are stranger than anything on The X-Files."

Ortleb satirizes ACT UP so perfectly, you just want to get up and dance. Like his description of the AIDS activists who decide to cover the city in toilet paper with "Wipe AIDS off the face of the earth" printed on each panel. Or the colorful posters that appear in laundry rooms that say "While you're washing your clothes, someone with AIDS is dying."

In an attempt to silence Peter and the "dangerous" newspaper, "The New York Messenger," the activists step up their propaganda campaign "to such an extent that several of the AIDS activists had been hospitalized for chanting exhaustion."

Ortleb's writing style is deliberately indelicate - exaggerated and at times cartoonish. That is why his cartoon characters work so well. He introduces a parade of familiar archetypes, as the book progresses and gets more and more surreal. These characters say so much about the psychic ecosystem of AIDS, which transcends the scientific questions, and yet shapes the history of AIDS so indelibly. There's the "Avuncular Gay Physician," for instance, the "Doctor of Doctors," the "Inscrutable AIDS Researcher," the "Council of Three," activists Hughie, Tooey and Stewie who assure the Doctor of Doctors that his formula of "Nine times three to the third power divided by four hundred and twenty three to the tenth power," is certainly the answer to AIDS.

"We now feel certain that under your guidance," they tell him worshipfully, "AIDS is toast."

The Inscrutable AIDS Researcher (David Ho?) unveils a nine point program he wants to implement to run the AIDS empire. It includes ceasing to pretend that the main objective is to extend the life of the patient, but rather to end the life of the virus, and finding new adjectives to describe HIV to the bored public. Point eight is particularly savage: "We should stop referring to people who die after taking the Cocktail of Cocktails as 'dead people.' We should honor their struggle by calling them 'treatment compliance failures."

Ortleb drives a stake through the false red heart of the AIDS cult. It was a job that urgently needed to be done. This little book that nobody would publish may be the most dangerous book of the decade. Get it fast.

The book was self-published by Ortleb through Rubicon Media, but to obtain a copy, order one from Continuum or get it through Amazon or the electronic version at : ElectronPress.com

Celia Farber has an AIDS column again. Find her uncompromising insights on the www at impressionmag.com

Sunday Satellite Triumph
at Geneva's 12th World AIDS Conference

Joan Shenton

Photo : Huw Christie

Joan Shenton is an award winning documentray film maker and writer. Her book Positively False, Exposing the Myths around HIV and AIDS was published in April this year by I.B. Tauris. Her London-based company Meditel Productions has made seven programmes for network television on the subject of HIV/AIDS, including AIDS - The Unheard Voices (Royal Television Society Journalism Award) and AZT - Cause For Concern (British Medical Association Certificate of Educational Merit).

It was at the 9th Word AIDS Conference in Berlin that a courageous band of AIDS dissidents made a considerable dent in the armour of the prevailing AIDS orthodoxy, but it was at the 12th World AIDS Conference in Geneva this summer that they were able to climb in through the suit of armour's visor and tackle the scientific establishment from within.

Michael Baumgartner had the idea to form an umbrella organisation called IFAS (International Forum for Accessible Science) which would draw together and represent the many different dissident factions critical of the virus/AIDS hypothesis. These included Aktion positif Schweiz (ApS), Switzerland; Gay International Association (GaIA) Trust, UK/Switzerland; Continuum magazine, UK; Meditel Productions, UK; Health Education AIDS Liaison (HEAL), USA; and Centro Orientativo de Bio-Regeneración Aplicada (COBRA), Spain.

So IFAS was duly set up and through it Baumgartner was able to campaign for a plenary session at the World AIDS Conference which would address the controversial issues surrounding whether or not HIV has been isolated and properly identified and whether the HIV test can be relied upon. The request for a plenary session was turned down but after much petitioning and perseverance IFAS was granted a satellite meeting. These meetings usually cost between £7,000 and £10,000 to book and are often reserved by major pharmaceutical companies who want to promote a new drug therapy. However, the conference executive committee agreed to waive the fee and a meeting hall was booked for a two hour IFAS session: "HIV testing - Open questions on specificity".

The meeting was held on the Sunday evening just after the conference opening thrash. The main performers were the group of scientists from Perth, Western Australia led by biophysicist Eleni Eleopulos. Eleopulos's work and published papers over the last decade has been focused on the unthinkable - that not only is HIV not the cause of AIDS, but that HIV itself has never been isolated and therefore it has never been identified. Hence a positive HIV test is not proof of infection by a deadly virus but simply registers raised antibodies to certain proteins in the body. Although these proteins are said only to exist in HIV, they are, says Eleopulos, endogenous and to be found in any person whose immune system is severely compromised.

Photo : Clair Walton

An entrance to the huge Palexpo centre in Geneva

This is what those of us who filed into Session Hall III at the Palexpo Centre in Geneva that night had come to hear. Could it really be that such a heretical view of the virus/AIDS hypothesis was finally going to get a hearing within the walls of this temple to AIDS orthodoxy and all its surrounding commercial interests?

Inside the satellite conference hall we waited nervously to see how many people would turn up to the vast hall with its 500 seating capacity. We knew that Eleni Eleopulos and her colleagues would not be there in person but were to be beamed through to us on a giant screen by means of the latest video conferencing technology.

Then, to an audience of 50, which included Professor Bernard Hirschel this year's conference chairman, Michael Baumgartner opened the meeting. The first speaker was Huw Christie, editor of Continuum magazine, who spoke movingly from the point of view of a diagnosed person. He concentrated on the way in which the AIDS orthodoxy has turned a deaf ear to the scientists and people with AIDS who have dared to call their science dangerously flawed. This obscurantism had cost many, many lives.

Then the pictures from Perth, Australia filled the giant screen above the speakers' heads. Sitting at a table on the other side of the world was the team from the Royal Perth Hospital: Eleni Eleopulos, Dr Valendar Turner, Dr David Causer and Dr Bruce Headland Thomas.

These meetings usually cost between £7,000 and £10,000 to book and are often reserved by major pharmaceutical companies who want to promote a new drug therapy.

Eleopulos began her speech. Her key points surrounding the non-specificity of the HIV test were based on her many published papers. The reason for the failure of the HIV test, she said, was because HIV had never been properly identified and was said to exist through indirect antibody tests for a set of proteins that could arise in all of us. The bombshell came when she described how neither Robert Gallo nor Luc Montagnier in the work that led up to the "discovery" of HIV could prove that they had used the currently accepted methods for purifying a retrovirus. Neither could they prove they had successfully isolated it. Eleopulod quoted a recent interview with Montagnier in which he admitted that he had not purified HIV. "That", said Eleopulos, "should have been the beginning and end of HIV".

I was given an opportunity to point out the many anomalies surrounding the HIV test. This work was based on research we have been doing over the past two years, together with Continuum magazine, for a forthcoming television documentary. We had discovered, for example, that the customary Western blot confirmatory test has been dropped in England where ELISAs only are used, whereas in Scotland Western blot is still required before someone is diagnosed HIV positive. When we put these differences to the test in England and Scotland with a set of blood samples, we uncovered some directly conflicting results. The implications of a false diagnosis and the impact on people's lives was something that had to be faced and an urgent reappraisal of the virus/AIDS hypothesis was called for.

Baumgartner moved on to introduce the next speaker, Professor Etienne de Harven, a distinguished electron microscopist from the Sloan Kettering Institute in New York. De Harven criticised the dismissal after 1970 of electron microscopy in retrovirus research, which led to exclusive reliance on various so-called "markers" for HIV specificity - markers like antibodies, "viral proteins" and reverse transcription. It was unacceptable to use proteins as viral markers, he said, and never in the history of Western medicine has the presence of antibodies been synonymous with disease.

They couldn't find purified virus in humans so settled for markers, he said. When they finally did look at what they were calling HIV in 1997 it turned out to be cell debris with no typical recognisable virus. If that's the material all viral markers are taken from, it's rubbish, said de Harven. He also dismissed the science surrounding the measurement of viral load which implies viraemia and presupposes the proliferation of circulating viral particles in peripheral blood, and concluded by saying, "Currently used HIV tests are meaningless and the very existence of HIV must be scientifically reconsidered."

Virologist Dr Stefan Lanka moved to the dais next. In view of what had been said by the Perth scientists, he called for the World AIDS Conference programme to be changed there and then. He said all HIV testing should be banned forthwith; discussion of the evidence from Perth should be put high on the conference agenda, and a review of current antiviral treatments should take place, with new non-toxic treatment options based on reconstituting the immune system taking the place of the damaging combination cocktails.

Professor Gordon Stewart, emeritus professor of public health at Glasgow University, followed with an onslaught on the way statistics for AIDS have been manipulated in order to bolster up the virus/AIDS hypothesis and the unfounded prediction of the heterosexual spread of AIDS. Stewart reminded us that his own predictions for AIDS cases based on a high risk lifestyle hypothesis had been proved right. The government's figures based on the presumed sexual transmission of the 'HIV virus' had been overestimated by 147%.

A lively question and answer session followed between Geneva and Perth skilfully chaired by Neville Hodgkinson, who after his articles in the press and the publication of his book on the subject was able to pick up authoritatively on the often complex points.

Needless to say, none of the Satellite Meeting issues were taken up seriously by the conference organisers. In fact, Professor Hirschel went out of his way at a later press conference to distance himself from our meeting saying he had not been convinced by any thing that was said. Never mind. The fact that it took place at all in such an openly hostile environment is enough in itself. I leave the last word to Dr Val Turner. He urged us to remember via the live satellite link that "being right is only 3% of the answer".

Text and graphics of the Geneva Conference presentation by the Perth Group,
A Critical Analysis of HIV Tests and the Evidence for the Existence of HIV,
is on the Internet at
http://www.virusmyth.com/aids/perthgroup/geneva

PROGRESSIVE INCREASE OF OXIDATIVE STRESS IN ADVANCING HUMAN IMMUNODEFICIENCY

Photo : courtesy of the author

Siro Passi

Dr. Siro Passi is a biochemist who graduated at the University of Rome in 1969. In 1991, he became the head of the Physiopathology Laboratory of the St.Gallicano Research Institute (Rome) and, in 1995, was appointed Scientific Director of the same Institute. After a few months he resigned in order to become the head of the "Cell Aging Center" of the IDI Research Institute (Rome), where he is working at present.
Over the past two decades he has preferentially carried out investigations in vivo on natural defence mechanisms of living cells against reactive oxygen and nitrogen species and other toxic radicals, and has published many papers on oxidative stress and its adverse consequences in different pathologies. On the basis of his studies performed on patients diagnosed HIV positive and/or with AIDS in the early nineties, he asserted that HIV phenomena are the outcome of oxidative stress, and not vice versa. Since these claims were objected to as heretical nonsense by the main journals of the AIDS establishment, he wrote in 1995, with professor Ferdinando Ippolito, a heretic book: AIDS - new frontier, edited by G.Lombardo (Rome).

Abstract

In order to investigate the antioxidant/prooxidant imbalance in advancing human immunodeficiency we have performed a multiparameter analysis of : a) non-enzymatic and enzymatic antioxidants; b) phospholipids, cholesterol esters, and their fatty acid patterns; c) selenium; d) by-products of oxidative attack on polyunsaturated fatty acids and proteins; e) catecholamine metabolites, in the blood (plasma, erythrocytes, and lymphocytes) and urine of 124 patients diagnosed HIV seropositive, 95 males and 29 females, aged 19-45 years, at different stages of immunodeficiency, and in 50 age and sex matched healthy controls. The seropositive individuals were classified, using standard criteria, as being asymptomatic (31 individuals, who were not taking antiviral drugs, CD4+=465±88 cells / mm^3), symptomatic (48 individuals, who were taking antiviral and other toxic drugs, CD4+= 195±56 cells/mm^3), and AIDS patients (45 individuals, who were taking antiviral and other toxic drugs, CD4+ = 86±32 cells/mm^3).

Our results clearly show that severe oxidative stress occurs in the blood (plasma, erythrocytes, and lymphocytes) of seropositive patients in comparison with controls, and increases significantly with the progression of disease, i.e. AIDS > symptomatics > asymptomatics > controls (Tables I, II). The observed oxidative stress is characterized either by the depletion of: lipophilic antioxidants (vitamin E, ubiquinol, ubiquinone, vitamin A, and b-carotene), hydrophilic antioxidants (reduced glutathione, ascorbate, and urate), selenium, phospholipids and cholesterol esters, and their polyunsaturated fatty acid patterns, or by an increase of by-products of polyunsaturated fatty acid and protein oxidations, and by a critical imbalance of enzymatic antioxidants (superoxide dismutase and glutathione peroxidase). In particular the deficiency of ubiquinol, vitamin E, reduced glutathione, phospholipids, cholesterol esters, and polyunsaturated fatty acids represents an early marker of the disease.

The possibility of counteracting oxidative stress by a pool of proper antioxidants plus an appropriate diet, mainly in patients whose blood antioxidant and lipid deficiencies can be easily rebalanced, may have real health benefit and represent a promising way of inhibiting the progression of disease, provided that these individuals take care of themselves and take poisons out their body.

Introduction

Evidence has accumulated suggesting that individuals diagnosed HIV seropositive suffer an oxidant/antioxidant imbalance, known as oxidative stress, the role of which appears to be quite broad. It has been involved in fact in abnormal immune function - particularly T-lymphocyte function - weight loss, apoptosis, drug toxicity...[1-19]

Deficiency of cysteine, reduced glutathione, ascorbate, vitamin E (vit E), vitamin A (vit A), b-carotene, selenium, ubiquinone, polyunsaturated fatty acids, and an increased degree of lipoperoxidation have been shown each time in the blood of seropositive patients.[1-19] Observations have been fragmentary , disconnected, and, sometimes, conflicting. For example, Fuchs et al,[14] contrary to other authors,[9,11,15] reported normal levels of vit E, vit A and b-carotene in the plasma of seropositive patients. Leff et al[16] found that serum catalase activity (CAT) increases when disease progresses, while glutathione peroxidase activity (GSH-Px) remained unchanged. By contrast, Fuchs et al[14] and Favier et al[17] reported depressed levels of GSH-Px in the plasma or serum of seropositive patients. However, a comprehensive and systematic study of the multiple parameters of the blood antioxidant pool and of molecules prone to oxidative attacks was not performed in seropositive patients, in particular when immunodeficiency progresses.

Therefore a multiparameter analysis of the following has been performed:

- non-enzymatic and enzymatic antioxidants, such as vit E, ubiquinol ($CoQ_{10}H_2$), ubiquinone (CoQ_{10}) vit A, b-carotene, reduced and oxidised glutathione (GSH, GS-SG), ascorbate (vit C), urate, Cu, Zn superoxide dismutase (SOD), CAT , GSH-Px, selenium (Se),
- phospholipids (PL), free cholesterol (FC), and cholesterol esters (CE),
- fatty acid patterns of phospholipids (PL-FA) and of cholesterol esters (CE-FA),
- by-products of oxidative attack on polyunsaturated fatty acids and proteins,

PROGRESSIVE INCREASE OF OXIDATIVE STRESS IN ADVANCING HUMAN IMMUNODEFICIENCY

• catecholamine metabolites,

in the blood (plasma, erythrocytes, and lymphocytes) and urine of 124 seropositive individuals, 95 males and 29 females, aged 19-45 years, at different stages of immunodeficiency, and in 50 age and sex matched healthy controls.

Patients and methods

Patients

Seropositive patients were classified by using standard criteria as: asymptomatic (31 individuals, who were not taking antiviral drugs, CD4+ = 465±88 cells/ mm3), symptomatic (48 individuals, who were taking antiviral and other toxic drugs, CD4+= 195±56 cells/mm3), and patients diagnosed with AIDS (45 individuals, who were taking antiviral and other toxic drugs, CD4+=86±32 cells/mm3). Criteria for patients' admission to the present study included that they had not been taking antioxidant supplements for at least 30 days before blood extraction. Most of the seropositive individuals, in particular the symptomatic and AIDS patients, had suffered and/or were suffering liver disorders to various extent, mainly viral and chronic hepatitis.

Methods

Blood collection.

After an overnight fast, blood samples were drawn between 7.00 and 8.00 a.m. from the cubital veins of the subjects and anticoagulated with EDTA for all determinations except selenium quantitation, in which heparin was used as anticoagulant.[20]

Following plasma separation, lymphocytes and erythrocytes were obtained by centrifugation on Ficoll Paque gradient (Pharmacia Biotech.). Both lymphocytes and erythrocytes were washed twice with phosphate buffered saline (PBS, 9.5 mM PB, 140 mM NaCl, pH 7.2), and stored at -80°C until analyses.

All participants gave informed consent for the present study.

Enzymatic and non-enzymatic antioxidant assays.

Erythrocyte Cu, Zn-SOD activity was measured by using a Randox test combination (Randox, Grumlin, U.K.). Xantine and xantine oxidase were used to generate superoxide anion radicals which react with 2-(4-iodophenil) 3-(nitrophenol-5 phenyl tetrazolium chloride (INT). SOD inhibits the reaction by converting the superoxide radical to oxygen. One SOD unit inhibits the rate of INT reduction by 50% at 37°C and pH 7 for 1 min. A standard curve was prepared by using the standard provided in the kit, and the value for each sample was read from this curve. SOD activity is measured at 505 nm on a Hewlett-Packard 8453 spectrophotometer.

Erythrocyte GSH-Px activity was determined by using a Randox test combination. GSH-Px catalyses the oxidation of GSH to GS-SG by cumene hydroperoxide according to the method of Paglia and Valentine.[21] In the presence of glutathione reductase and NADPH, GS-SG is immediately converted to GSH with a concomitant oxidation of NADPH to $NADP^+$. The decrease in absorbance at 340 nm was measured at 37°C. A standard curve was prepared by using the standard provided in the kit, and the value for each sample was read from this curve. One GSH-Px unit is defined as the enzyme activity necessary to convert 1 mmol NADPH to $NADP^+$ at 37°C and pH 7.2 in 1 min.

Erythrocyte CAT activity was assayed according to Aebi[22] by following spectrophotometrically at 240 nm the decomposition of hydrogen peroxide. A standard curve was prepared by using catalase provided by Sigma Chem. Co. One CAT unit is defined as the enzyme activity necessary to convert 1 mmol H_2O_2 to $H_2O + O_2$ at 25°C and pH 7 in 1 min.

GSH +GS-SG

Contemporaneous determination of plasma and erythrocyte GSH and GS-SG was performed by high performance liquid chromatography (HPLC) on a 1090 liquid chromatograph, Hewlett-Packard equipped with both an in-line1050 Diode array detector and an electrochemical detector 1049 A with a glassy carbon electrode, essentially as described by Reed et al[23] The procedure is based on the initial formation of S-carboxymethyl derivative of GSH with iodoacetic acid, followed by conversion of free amino group to 2,4-dinitrophenyl derivative by reaction with 1-fluoro-2,4-dinitro benzene. Separation of GSH and GS-SG derivatives was performed by HPLC on an analytical amino-propyl column (Hypersil APS-2, 5 mm, Alltech) plus its guard column, with spectrophotometric detection at 350 nm.

Vit E

Determination of plasma and lymphocyte Vit E was performed by gas chromatography-mass spectrometry (GC-MS) on capillary Ultra 1 column (30 m x 0.2 mm x 0.33 mm, Hewlett-Packard) according to Passi et al.[24]

Selenium

Plasma selenium was assayed by atomic absorption spectrophotometry according to Oster et al.[20]

Ascorbic and uric acids

Plasma ascorbic and uric acids were determined by HPLC on an analytical Supelcosil LC-18-DB column (24 cm x 4,6 mm, 5mm , Supelco) plus its guard column, with electrochemical detection nm according to the method of Motchnik et al.[25]

$CoQ_{10}H_2$ and CoQ_{10}

Plasma and lymphocyte $CoQ_{10}H_2$ and CoQ_{10} were quantified simultaneously by HPLC on an analytical Supelcosil LP-18-column (24 cm x 4,6 mm, 5mm , Supelco) plus its guard column, by using in line both Diode array and electrochemical detectors. Mobile phase : methanol/isopropanol, 55/45,v/v, flow:1 ml/min.[26]

Vit A, b-carotene

Plasma Vit A and b-carotene were assayed by HPLC on an analytical Supelcosil LP-18- column (24 cm x 4,6 mm, 5mm , Supelco) plus its guard column, by using in-line electrochemical detection of CoQ_{10} H_2, and UV detection (275 nm) of CoQ_{10}. Mobile phase : A = 20mm $NaClO_4$ in $MeOH/H_2O$ (96/4,v/v), B=MeOH/2-propanol (55/45,v/v); gradient program: %B 5 for 5 min, %B 20 in 15 min and then % B 90 in 25 min.

Protein carbonyls

Plasma protein carbonyls were evaluated by the 2,4-dinitrophenylhydrazine method according to Faure and Lafond.[27]

Fatty acid patterns of plasma phospholipids and cholesterol esters

Quantitation of fatty acid patterns of plasma phospholipids and cholesterol esters was performed by GC-MS according to Passi et al[15] on a crosslinked-FFAP capillary column (50 m x 0.32 mm x 0.52 mm, Hewlett-Packard), following purification of lipid fractions by TLC according to Passi et al.[28]

Urinary catecholamine metabolites, and azelaic acid

Urinary catecholamine metabolites, namely homovanillic acid (HVA), vanil mandelic acid (VMA), and azelaic acid (AZA), a marker of lipoperoxidation,[29] were assayed as TMS derivatives by GC-MS on capillary Ultra 1 column (30 m x 0.2 mm x 0.33 mm, Hewlett-Packard) according to Morrone et al.[30]

Plasma lipoperoxides

Plasma lipoperoxidation levels were evaluated by both thiobarbituric acid (TBA) and 9,11 conjugated diene tests.[15] The values of TBA-reactive materials (TBA-RM) were expressed in terms of malondialdehyde (nmol/ml). Conjugated dienes were quantitated spectrophotometrically at 234 nm, using a molar absorption coefficient of 27,000.

Cholesterol

Total cholesterol (CH) was assayed spectrophotometrically by using commercial analytical kit from Sigma (St.Louis, MO). Free cholesterol (FC) was analysed by GC-MS on Ultra 1 capillary column according to Passi et al.[24] The values of cholesterol esters (CE) are given by the difference between CH and FC (CE = CH - FC).

Phospholipids

Total phospholipids were quantified spectrophotometrically by commercial analytical kit from SGM Italia (Rome).

Statistical analysis

Each result was expressed as mean ± standard deviation. The statistical significance of the data was determined according to unpaired Student's t-test.

Results

The blood levels of antioxidants, selenium, phospholipids and their fatty acid pattern, free cholesterol, cholesterol esters and their fatty acid pattern, lipoperoxides, and urinary concentrations of catecholamine metabolites and AZA, a marker of lipoperoxidation in vivo, in 124 seropositive patients and in matched seronegative healthy controls are reported in Tables I and II.

Asymptomatic seropositive patients

In comparison with controls, either statistically reduced lymphocyte and plasma levels of $CoQ_{10}H_2$ ($p<0.001$), erythocyte GSH ($p<0.01$), plasma concentrations of vit E ($p< 0.01$), cholesterol esters, phospholipids (0.01), and their polyunsaturated fatty acid patterns, (such as C20:3 n-6, C20:4 n-6, and C22:6 n-3) ($p<0.01$), or significantly increased concentrations of plasma and urine by-products of lipoperoxidation ($p< 0.01$) and urinary catecholamine metabolites ($p<0.01$) were observed.

Symptomatic seropositive patients

In comparison with controls, we found either statistically reduced levels of plasma and lymphocyte $CoQ_{10}H_2$ ($p<0.001$), plasma and lymphocyte vit E ($p< 0.05$ and 0.001 respectively),plasma selenium and vit A ($p<0.01$), plasma cholesterol esters and phospholipids ($p<0.001$), and their HPUFA(high polyunsaturated fatty acids such as C20:3 n-6, C20:4 n-6, and C22:6 n-3) patterns ($p<0.001$), and erythrocyte GSH ($p<0.001$), or significant increase of plasma protein carbonyls ($p<0.01$), erythocyte SOD and GS-SG ($p<0.05$), and urinary catecholamine metabolites ($p<0.01$).

AIDS patients

In comparison with controls, we found either statistically significant very low levels of plasma $CoQ_{10}H_2$, vit E, selenium, vit A, b-carotene, vit C, phospholipids, cholesterol esters, and HPUFA patterns of the two last fractions($p<0.001$), CoQ_{10} ($p<0.01$), and urate(($p<0.05$), erythocyte GSH-Px and GSH ($p<0.001$), lymphocyte vit E, $CoQ_{10}H_2$, and CoQ_{10} ($p<0.001$), or significant increase of erythocyte SOD ($p<0.001$) and GS-SG ($p<0.01$), plasma protein carbonyls ($p<0.001$), and urinary catecholamine metabolites ($p<0.01$-0.001).

However it is important to underline that the standard deviations indicated in Tables I and II, higher in patients than in controls, are indicating an elevated degree of fluctuation of data, which affect statistical significance.

Table I. Plasma, erythrocyte and lymphocyte levels of antioxidants, and urinary catecholamine metabolites in patients with advancing immunodeficiency and in healthy age-matched controls..

Antioxidant	PLASMA controls (n=40)	asymptomatic (n=31)	symptomatic (n=48)	AIDS (n=45)
Vit E (mg/ml)	11.3±1.9	8.6±2.2**	7.7±2.6*	6.7±2.8*
$CoQ_{10}H_2$ (mg/ml)	0.46±0.11	0.21±0.12*	0.14±0.16*	0.08±0.10*
CoQ_{10} (mg/ml)	0.38±0.10	0.40±0.11	0.32±0.15	0.28±0.10**
Se (mg/l)	77±18	75±20	61±12**	57±15*
Vit A (mg/ml)	0.490±0.034	0.472±0.047	0.425±0.063**	0.344±0.092*
b-carotene(mg/ml)	0.234±0.17	0.222±0.038	0.201±0.035***	0.178±0.045*
Ascorbate (mg/ml)	9.6±2.6	8.3±2.9	7.1±2.3***	5.0±3.0*
Urate (mg/ml)	48.3±8.6	50.5±10.1	46.5±11.1	34.2±15.3***
TBA-RM (nmol/ml)	1.80±0.75	3.35±1.38**	2.54±1.39	2.16±1.95
Conjugated dienes (nmol/ml)	7.9±3.1	13.5±5.3**	11.7±7.3	8.9±7.1
Protein carbonyls (nmol/mg protein)	0.76±0.19	0.98±0.37	1.19±0.33**	1.33±0.45*
ERYTHROCYTES				
SOD (U/g Hb)	960±186	1090±220	1305±370***	2820±980*
GSH-Px(U/g Hb)	38±6	31±7	27±6*	12±10*
CAT(U/g Hbx10-3)	40±5	44±4	43±6	39±6
GSH (mg/ 10^9 Eryth)	106±24	83±22**	65±27*	47±30*
GS-SG (mg/ 10^9 Eryth)	10±3	12±5	15±5***	14±4**
LYMPHOCYTES				
Vit E (ng/10^6 Lymphoc.)	91±16	76±12*	45±10*	32±15*
$CoQ_{10}H_2$(ng/10^6 Lymphoc.)	19± 5	7 ±5*	4 ± 4*	tr*
CoQ_{10}(ng/10^6 Lymphoc.)	20 ± 6	22 ± 10	16± 8	12±5*
URINE				
Metabolite				
HVA (mg/24h)	2,95±1.12	6.86±3.02**	5.78±2.55**	7.81±4.43**
VMA (mg/24h)	2.01±0.96	4.74±1.95**	6.10±3.82**	6.97±3.02*
AZA (mg/24h)	0.95±0.48	3.17±1.85**	3.69±3.02	2.50±2.78

Results are expressed as mean ± SD
*** p<0.05, **p<0.01, *p<0.001, vs controls

Discussion

Oxidative stress in biological systems can be induced by the depletion of antioxidants and/or by an overload of oxidant species, i.e., reactive oxygen and nitrogen species (ROS, RNS) and other radicals ($R^{\bullet}$), so that antioxidant levels become insufficient [31,32]. Sustained oxidative stress damages cellular macromolecules and functions, which are maintained and mediated by critical redox systems, so contributing to the patho-physiology of many diseases.

Our results clearly show that severe oxidative stress occurs in the blood (plasma, erythrocytes, and lymphocytes) of seropositive patients in comparison with healthy age and sex matched controls, and increases significantly with the degree of immune deficiency, i.e., AIDS > symptomatic > asymptomatic > controls (Tables

Table II. Plasma levels (%) of phospholipid (PL) , cholesterol ester (CE), and their fatty acids patterns in patients with advancing immunodeficiency and in healthy age-matched controls..

	controls (n=40)		asymptomatic (n=31)		symptomatic (n=48)		AIDS (n=57)	
fatty acid	PL	CE [a]	PL	CE [b]	PL	CE [c]	PL	CE [d]
	1.95±0.15 mg/ml	2.52±0.26 mg/ml	1.73±0.21 mg/ml**	1.91±0.30 mg/ml**	1.49±0.37 mg/ml*	1.66±0.43 mg/ml*	1.35±0.40 mg/ml*	1.51±0.38 mg/ml*
C16:0	26.8±1.4	11.1±0.9	28.4±2.2	13.2±2.0	31.7±2.6**	16.0±2.3*	33.5±3.8*	16.6±3.8*
C18:0	14.9±1.7	1.1±0.2	15.7±2.0	1.8±0.4	15.4±3.5	3.4±1.2**	16.7±2.7	4.8±1.2*
C18:1	13.1±1.2	32.4±4.2	15.6±2.3	34.4±4.8	17.6±2.7**	35.0±2.8**	16.1±2.4**	35.7±2.5**
C18:2	23.6±2.3	46.7±4.8	22.6±2.5	42.9±7.4	21.8±3.4	42.2±5.4	21.6±4.2	40.8±3.8**
C20:3 n-6	3.9±0.7	1.2±0.2	2.8±0.8**	1.6±0.7**	2.1±0.7*	0.8±0.6*	1.8±0.4*	0.2±0.2*
C20:4 n-6	12.7±2.1	6.5±1.1	10.6±1.4**	4.8±0.8**	9.0±1.5*	1.6±0.8*	8.1±2.0*	0.8±0.4*
C22:6 n-3	3.5±0.9	0.1±0.1	2.0±1.1**	-	1.4±0.4*	-*	0.8±0.6*	-*
others	1.5	0.9	2.3	1.3	1.0	1.0	1.4	1.2
HPUFA	20.1	7.8	15.4	6.4	12.5	2.4	10.7	1.0

Results are expressed as mean ± SD. Fatty acids were analysed as methyl esters. Others: other fatty acids such as C14:0, C16:1, C20:1 etc. Minor HPUFA such as C20:3

n-3, C20:5 n-3, C22:4 n-6 are not shown in the table, because GC-MS did not allow unequivocal identification of any of them.

a,b,c,d: corresponding respectively to 1.49, 1.13, 0.98, 0.89 mg/ml free cholesterol.

HPUFA (high polyunsaturated fatty acids) : C20:3 n-6 + C20:4 n-6 + C22:6 n-3

***** p<0.05, **p<0.01, *p<0.001, vs. controls.**

I,II). The observed oxidative stress is characterized by the depletion of: lipophilic antioxidants (A), hydrophilic antioxidants (B), selenium (C), phospholipids (PL), cholesterol esters (CE), and their polyunsaturated fatty acid (PUFA) patterns (D), and by a critical imbalance of enzymatic antioxidants (E).

A.

The main function of lipophilic antioxidants such as $CoQ_{10}H_2$, CoQ_{10}, vit E, vit A, b-carotene is to prevent damages to membrane and plasma polyunsaturated lipids. CoQ_{10} and vit E deficiency is already evident in the plasma and lymphocytes of asymptomatic seropositives, while that of vit A, b-carotene and CoQ_{10} takes place later. In this connection, recently, Yamashita et al[33] proposed that the imbalance of the plasma ratio $CoQ_{10}H_2$ / CoQ_{10} can be considered a marker of oxidative stress. In addition, it has been found that, after ultraviolet irradiation (UV) of human skin equivalents, $CoQ_{10}H_2$ resulted as the most susceptible antioxidant to depletion, followed by CoQ_{10} and vit E, while water soluble antioxidants were quite stable against oxidative damage by UV.[34]

$CoQ_{10}H_2$ plus CoQ_{10} (UBI) are ubiquitous and essential for life, meaning they exist in all body cells and support cellular energy production by helping generate adenosin triphosphate (ATP). Once UBI body levels become more than 25-30 % deficient, many disease may begin, including immunodeficiency, cancer, cardiovascular diseases etc.

It is well known that CoQ_{10}, in addition to its function as an electron and proton carrier in mitochondria, acts as a powerful antioxidant in its reduced form ubiquinol ($CoQ_{10}H_2$), by preventing both the initiation and the propagation steps of lipoperoxidation in biological membranes.[35-36] Furthermore, it is able to sustain efficiently the chain breaking antioxidant capacity of Vit E , by regenerating it from a tocopheryl radical,[37] which otherwise would need the cooperation of hydrophilic antioxidants such as Vit C and/or GSH. Therefore, as $CoQ_{10}H_2$ is essential to maintain Vit E status and function, decrease of $CoQ_{10}H_2$ in turn contributes to further exacerbate the depletion of Vit E. It is worth mentioning that $CoQ_{10}H_2$ is the only known lipophilic antioxidant that mammalian cells can synthesise de novo and for which there are enzymic NAD(P)H dependent mechanisms able to (re)generate it from CoQ_{10}. [38-39] A derangement of these reductive mechanisms, due to an over production of pro-oxidant reactive species, coupled to a reduced CoQ_{10} biosynthesis, represent an important fingerprint in the progression of immunodeficiency.

Vit E (R,R,R-a-tocopherol) works in syntony and synergy with UBI within membranes and circulating lipoproteins, to protect them from oxidation. A recent study [40] suggests that high serum levels of vit E in seropositive patients is associated with a decrease in risk of progression to AIDS and mortality, while low serum concentrations have been correlated with higher degree of lipoperoxidation,[41] decreased plasma PUFA,[9] and increased p24 antigenemia.[9]

Several studies in both human and animal models suggest that vit E is necessary not only for immune system function , but also has important immunostimulatory properties,[42-45] likely due its antioxidant activity towards membrane peroxidation of rapidly proliferating cells of immune system, which are very rich in PUFA. Vit E modulates (downregulates) the intracellular generation of prostaglandin E2 (PG-E2), deriving from arachidonic acid (C20:4 n-6).[40,43-46] PG-E2 is capable of reducing both the production of interleukin-2 (IL-2), a cytokine critical for the growth and differentiation of T and B lymphocytes, and the activation of natural killer cells, which represent the major source of interferon-g (IFN-g). Vit E is also able to decrease the levels of tumour necrosis factor-a (TNF-a) and to upregulate IL-1 and IL-2 microphage production. According to these studies the modulation of these and other cytokines in the immune process is believed to play a major role in inhibiting HIV replication.[42-45] It has been reported that vit E supplementation enhances, in vitro and in vivo, antibody production, phagocytosis, lymphoproliferative response to viral and infectious diseases.[42-44] It has been also observed that vit E may normalise the immune abnormalities in mice with murine retrovirus.[45] Its supplementation in such mice produces an improvement in the secretion of IL-2 , natural killer cellular activity, IFN-g, and mitogenesis of spenocytes, in addition to a decrease in the levels of IL-4, IL-5, IL-6, and TNF-a, as compared with retrovirus-positive, but non-treated mice.[45]

Plasma vit A and its precursor b-carotene are less susceptible than $CoQ_{10}H_2$ or vit E to depletion, which becomes significantly evident in AIDS individuals (Table I), when, probably, the homeostatic control of liver on plasma vit A levels decreases.

Also vit A is essential for optimal functioning of the immune system. Low serum concentrations in seropositive patients have

been associated with low CD4+ cell counts,[9] a three to fourfold increase in rates of supposed maternal-fetal transmission,[46] an approximately 40% increase in risk of disease progression,[40] and increased mortality from AIDS-defining conditions or infections [47]. In any case, high serum levels of vit A were not associated with a decreased risk of progression to an AIDS diagnosis.[40]

B.

The depletion of ascorbate and urate, two powerful water soluble antioxidants against reactive species, occurs in the more advanced stages of immune deficiency, when oxidative stress peaks (Table I), while erythrocyte reduced glutathione (GSH) decline represents an early marker of immunodeficiency.

GSH is not only a major anticellular defence against the production of reactive oxygen species (ROS), but also the reducing substrate of glutathione peroxidase (GSH-Px), the main enzyme involved in intracellular hydrogen peroxide (H_2O_2) scavenging. GSH deficiency has been emphasised by several authors non only in serum and erythocytes of seropositive patients, but also in their broncoalveolar lavage fluid, and in T cell subsets of leukocytes. [3,4,5,7,50-54] It has been suggested that the reduced amounts of GSH in seropositive individuals might depend on chronic exposure to inflammatory cytokines, such as TNF-a,IL-1, IL-6, granulocyte-macrophage colony stimulating factor (GM-CSF), transforming growth factor-b (TGF-b), etc., partially deriving from macrophages and monocytes . These cytokines are able to stimulate, at cellular level, ROS production, that would contribute to GSH depletion. They would also activate the nuclear transcription factor kB(NF-kB), which is believed to stimulate HIV replication. [54-56]

C.

As found by other authors,[8,12,57] plasma selenium, which is essential for GSH-Px activity, decreases in disease progression (Table I).

D.

The plasma depletion of phospholipids (PL) and cholesterol esters (CE), and their PUFA patterns, in particular C20:3 n-6, C20:4 n-6 and C22:6 n-3, (Table II) can be considered another early marker of immune disorder and its progression. In contrast to CE, free cholesterol (FC), which represents approximate 15 % of total plasma cholesterol (CH) under normal conditions, is not significantly affected (Table II). It could appear as an odd hypothesis, but it is likely that people having plasma levels of CH > 210-220 mg/100ml can be considered resistant to the development of immunodeficiency. This statement has been carefully considered and originates from the observation that several hundreds of seropositive patients (in addition to those of the present study), not only symptomatic or AIDS patients, but also asymptomatic ones , display plasma CH levels < 170 mg / 100 ml.[58]

It is important to underline that PL and CH are molecules essential for membrane building during cellular turnover, meaning that their deficiency leads to reduced membrane and cell formation.

As far as PUFA are concerned, which are present mainly in PL and CE membrane fractions (PL-PUFA and CE-PUFA), it is well known they play a vital role in cellular physiology by two principal mechanisms[58-60]:

- maintenance of integrity and fluidity of membranes in association with CH (structural role). Any factor damaging membrane integrity and fluidity, such as PUFA peroxidation due to vit E or $CoQ_{10}H_2$ depletion or increased amounts of saturated fatty acids deriving from a circulating excess of saturated fatty acids - as is the case of seropositive individuals, is capable of inducing immunosuppression;
- biosynthesis of regulatory eicosanoids, i.e., prostaglandins and leukotrienes (regulatory role). These, in association with other messengers are able to stimulate the cells in carrying out basic functions such as differentiation, division, and secretion.

The deficiency of PUFA is an extremely serious problem in the case of mitochondrial PL, which are the indispensable lipid support for the correct functioning of enzymatic systems and molecules, particularly UBI, involved in the respiration. It is worthwhile underlining that any derangement of the electron transport system, for example PL-PUFA and/or UBI decline, produces electron leakage on oxygen, and one electron reduction of oxygen or "univalent pathway" is activated with over-generation of ROS (Fig.1).[31,58]

In agreement with the literature,[18,19,41] the PUFA depletion we observed (Table II) can be ascribed to a lipoperoxidative process, at least early in the course of the disease., when a significant increase of the values of TBA-RM, conjugated dienes, and AZA is evident (Table I). Later on, the values of lipoperoxidation are not significantly different from controls, also because of their high standard deviations, indicating an elevated degree of fluctuation of the data. In such case, the observed PUFA decline, more than to a lipoperoxidative process, might be attributed to an inhibition of microsomal desaturase enzymes, i.e., D-6 desaturase, D-5 desaturase, and D-4 desaturase, which are involved in n-6 and n-3 desaturation pathways, and require, for their physiological activity, optimal levels of. vit E, UBI and selenium.[58,61] In addition, it is important to underline that desaturase pathways occur mainly in liver and that liver disorders , mainly viral and/or chronic hepatitis affect most symptomatic and AIDS patients.

In any case, the lack of significance of lipoperoxidation values in these individuals, does not mean a reduction of oxidative attacks on cell macromolecules, as shown by the significantly increased values of protein carbonyls (Table I), which measure protein damage secondary to oxidation.

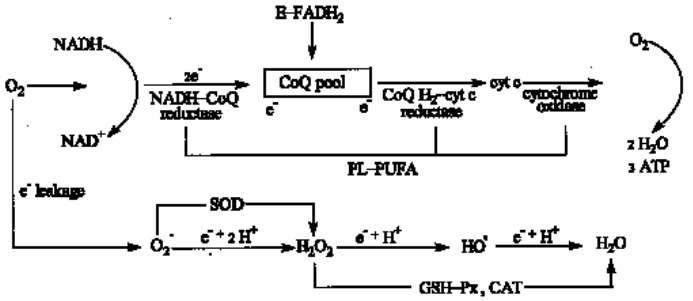


Fig. 1. The electron (e-) transport chain of mammalian mitochondria.[58] For every 4 electrons taken in, one oxygen molecule is reduced to two molecules of water. CoQ pool : CoQ_{10} + $CoQ_{10}H_2$; O_2^- : superoxide anion radical; H_2O_2 : hydrogen peroxide; $HO^\bullet$: hydroxyl radical.

E.

Enzymatic antioxidants, i.e. superoxide dismutase (SOD), glutathione peroxidase (GSH-Px) and catalase (CAT), are directly involved in the metabolism of ROS, working in synthony. SOD is able to dismute the superoxide anion radical (O_2^-) in hydrogen peroxide (H_2O_2) which is scavenged by GSH-PX and CAT. The former enzyme requires the presence of GSH and selenium to be effective. Surprisingly AIDS patients diagnosed with AIDS, show significantly higher values of erythocyte Cu,Zn-SOD than other seropositive patients or controls (Table I), probably due to an adaptative response to an increased flux of superoxide anions. In this connection, Niwa et al[62] found that paraquat, a drug able to increase intracellular O_2^- production, induces Cu, Zn-SOD formation in leukocytes. The induction should be theoretically impossible in erythrocytes, which lack the capacity of "de novo" synthesis of protein and lipids. However, it has been found that such synthesis may occur within erythocyte precursors, the number of which increases significantly following stimulation of erythropoiesis by ROS.[63] The high activity of Cu, Zn-SOD generates high levels of H_2O_2, which cannot be fully scavenged, because of the significantly reduced GSH-Px activity (likely due to the GSH and selenium depletion), not compensated by a concomitant increase of CAT activity. GSH-Px and CAT are both able to scavenge H_2O_2, but the former has much higher affinity for H_2O_2 than does CAT, suggesting that the peroxide is preferentially destroyed by GSH-Px .[64] High intracellular levels

of H_2O_2 and other ROS are capable of inducing apoptosis in seropositive individuals.[65] H_2O_2 was defined as " a mobile time bomb" by Gutteridge and Halliwell,[32] since it can easily and rapidly generate hydroxyl radical ($HO^{\bullet}$) at any time, if an electron is supplied to it, for example, from transition metal ions, such as Fe^{3+} or Cu^{2+}.

Chronic oxidative stress in seropositive patients is associated with elevated urinary excretion of catecholamine metabolites, i.e,, homovanillic and vanilmandelic acids, deriving respectively from dopamine and epinephrine plus nor-epinephrine, and evidentiating an abnormal neurovegetative stress, probably secondary to emotional and psychological stresses and delicate health.

Antioxidant depletion in the blood of seropositive patients is normally ascribed to an elevated prooxidant status due to an excess of ROS and shown by the presence of clastogenic factors in plasma ultrafiltrates.[66] On the basis of in vitro studies, it has been suggested that the excessive ROS production might be explained by a pro-oxidant effect of inflammatory cytokines and/or a polymorphonuclear leukocyte activation in infectious condition. Inflammatory cytokines such as TNF-a , IL-1, IL-6 etcetera, are able to stimulate, at cellular level, ROS production, that would contribute to GSH and other antioxidant depletion and on the other hand are believed to stimulate HIV replication, through the activation of NF-kB cell gene.[67] ROS are important for intracellular killing of microorganism by polymorphonucleate lymphocytes; however several studies have shown a reduced ROS production during the oxidative burst by phagocytes from seropositive patients, which might lead to impaired phagocyte microbicidal function, thus predisposing seropositive individuals to various opportunistic infections.

Probably the increased flux of ROS may depend on an impaired mitochondrial function leading to an activated univalent pathway, further worsened by the administration of toxic drugs to seropositive patients. For example, it has been shown that AZT widely damages mitochondria by causing ROS overproduction with consequent loss of antioxidants (in particular UBI) , oxidation of DNA bases, and myopathy.[32,58,67]

Taken for granted that ROS are able to attack PUFA, amino acid side chains in proteins, and bases in nucleic acids, thereby compromising cell integrity and functions, what is the role of HIV in oxidative stress? From a physio-pathological viewpoint, several factors are known to induce oxidative stress in vivo (Fig.2). Since infectious agents attack, as a rule, immuno-compromised individuals, it is likely that the depletion of antioxidants, PL, CE , PUFA, etc, and the consequent imbalance of cellular redox status may play an aetiological role in the onset and progression of numerous diseases. If we were to suppose that HIV were an infectious agent, it would behave as any other opportunistic agent, whose aggression is facilitated by cellular imbalance induced by both oxidative stress and essential membrane constituents, in particular PUFA and CH. In any case the modulation of intracellular redox status and molecules essential for membrane functioning, by the administration of both proper physiological antioxidants and appropriate diets, may have a beneficial therapeutic value to control and inhibit the progression of immune deficiency, certainly much better than the poisonous cocktails of DNA-chain terminators incompatible with life such as AZT and similar nucleoside analogues, anti proteases, antibiotics, antifungal agents, anti..... prescribed by the members of the orthodox AIDS establishment and capable of producing physical decline even in healthy individuals. In this connection, according to our results, it is no wonder that oxidative stress increases significantly in those patients who were taking these deadly cocktails, i.e., symptomatic and AIDS-diagnosed individuals.

Implications for treatment of the disease

Some authors have proposed antioxidant therapies intended to inhibit HIV replication. Based on the reduced levels of GSH in seropositive patients and the inhibitory effects of GSH and other thiols on what is inferred to be HIV replication in vitro and apoptosis of HIV-infected cells,[68] several authors have proposed clinical trials with GSH pro-drugs such as N-acetyl cysteine, glutathione ethyl esters, and oxothiazolidine-4-carboxylate. It has also been inferred from "In vitro" studies that vit C and vit E are able to inhibit HIV replication[68-70]and clinical trials have been proposed with these two vitamins as well as with ubiquinone, [6] talidomide (a selective inhibitor of TNF-a), lipoic acid, and diethyldithiocarbamate (a strong free radical scavenger able to inhibit the activation of NF-kB much more than N-acetyl cysteine higher).[71-74] To our knowledge, data concerning monotherapy with the above antioxidant drugs, including GSH precursors, in seropositive patients suggest they are without clinical benefit.

The lack of evident results with antioxidant mono-therapy must be carefully evaluated and not used to deny the possible efficacy of a rational antioxidant therapy. It is a nonsense to fight AIDS on the basis of results from experimental and highly questionable in vitro measurements, showing that an antioxidant is capable of inhibiting TNF-a synthesis or NF-kB activation and, consequently, HIV replication. Granted, for the sake of argument, that the administration of GSH pro-drugs leads to its increased intracellular levels, how is it possible to believe that such increase may re-balance the significant deficiencies of $CoQ_{10}H_2$, CoQ_{10}, vit E, vit A, vit C, PL, CE, PUFA, the imbalance of enzymatic antioxidants etc ? And the same for vit E, or CoQ_{10}, or vit C, or lipoic acid etc. The antioxidant monotherapy follows the dictates of the literature, where it is generally reported that enzymatic and non-enzymatic antioxidants form a dynamic integrated pool, in which the deficiency of one or more constituents can be compensated by the increased amounts of one or more molecules of the same pool, in order to maintain a homeostatic protective system against oxidative damage towards susceptible cell components. But whilst this may happen with a mild degree of deficiency, it will not happen with the severe depletions and imbalances observed in seropositive individuals.

Conclusions

Therapy should be taken not to weaken but to strengthen the body so that it will have a chance to heal itself. Therefore it is necessary to administer, on the basis of real individual needs, a "cocktail" of antioxidants [not only GSH precursors, but also CoQ_{10}, RRR-a-tocopherol (not d,l-a-tocopherol containing approximately 10% natural isomer), selenium], plus a diet rich in PUFA, CH, fruits and vegetables, in order to re-balance both cell redox status and membrane lipid constituents, provided that seropositive patients take care of themselves, taking into account the adverse factors capable of inducing oxidative stress and immune suppression listed in Fig.2. On this basis, it could be predicted that such treatment may be efficacious in forestalling the development of more severe immune deficiency in less compromised seropositive patients, in whom the oxidative damage to cells has not yet reached irreversible levels and can be successfully fought . The same treatment may also produce beneficial effects in symptomatic and AIDS patients, except for those who have reached a critical threshold of no return, condemned by the continuous combined use of antiretroviral and recreational drugs.

• GENETIC FACTORS
• INADEQUATE LIFESTYLE (recreational drug abuse, malnutrition, sleep deprivation, poor sanitation...)
• MEDICATION DRUG ABUSE
• DENUTRITION
• MALABSORPTION
• EMOTIONAL DISTRESS
• RADIATIONS

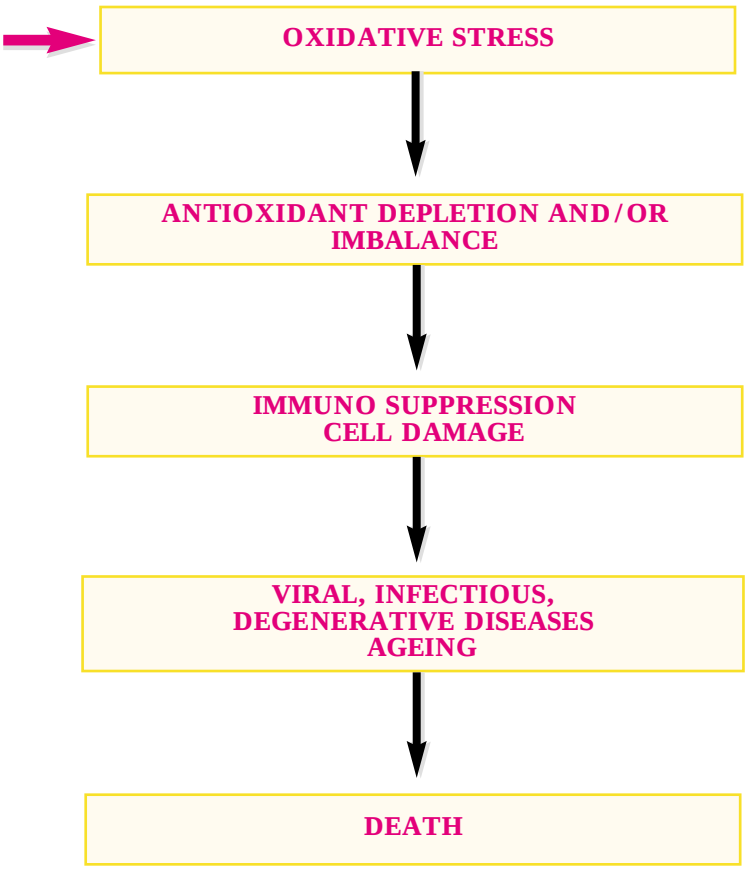


Fig.2. Factors capable of inducing oxidative stress "in vivo" and leading causes of immunosuppression. Recreational drugs include amphetamines, nitrites, heroin, cocaine, alcohol, cigarette smoke etc; medication drugs include antiviral, antimicotic, antibiotic, chemotherapeutic, etc. Malnutrition/denutrition, poor sanitation, and parasitic infections represent the main causes of African AIDS.

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Wheatgrass for liquid sunshine?

In excerpts from her small book Wheatgrass Juice - Gift of Nature, Betsy Russell Manning extolls the health properties of the green juice

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In ancient times, the wheatberry was considered the most valuable of foods. Chlorophyll from the growing wheat has proved itself for cleansing the bloodstream. Wheatgrass, freshly made into a drink, contains liquid sunshine plus the electric current necessary to revitalise the body. All cereals in their natural state, especially where the dark outer layers of wheat, barley, rye and rice are retained, make perfect food.

Wheatgrass is one of the richest natural sources of vitamin A and vitamin C. Wheat picks up 92 of the 102 minerals in the soil. It is a complete food, high in protein. Sprague, Crampton and Harris through separate studies bring out that wheatgrass is an excellent source of calcium, iron, magnesium, phosphorus, potassium, sodium, sulphur, cobalt, and zinc. Dr. Burkholder of Yale states that grasses are exceptionally rich in B vitamins. Digesting wheatgrass, the body gives up little energy to get these nutrients.

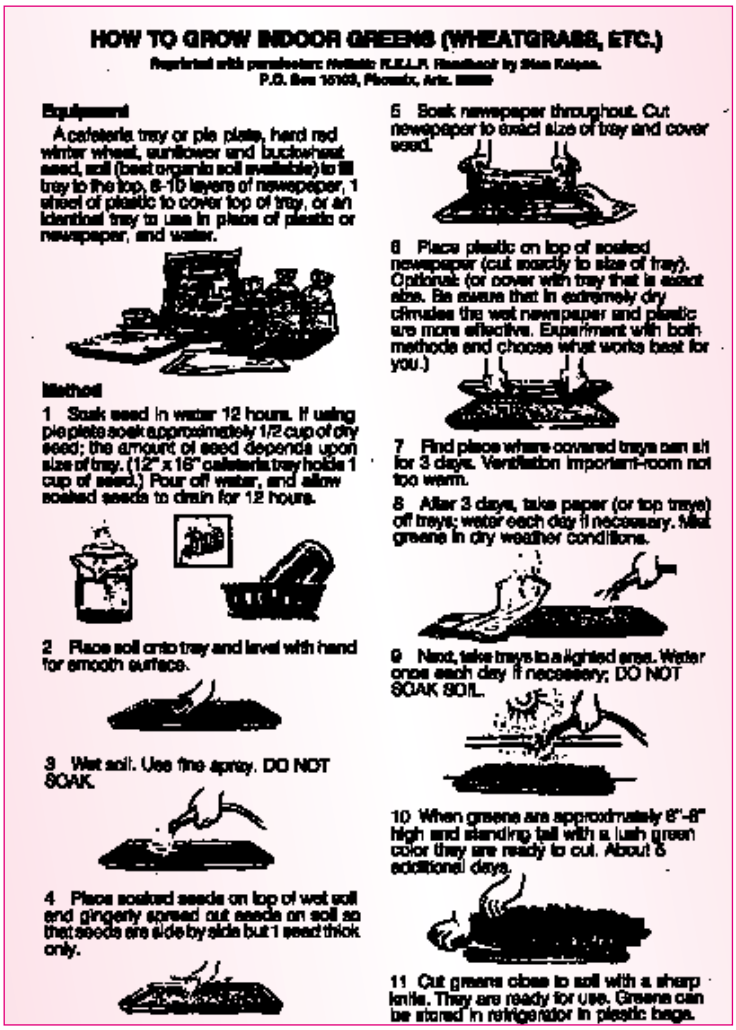
The solid content of juice made from wheatgrass is 70 percent chlorophyll. Chlorophyll is often referred to as "the blood of plant life" and has almost the same chemical structure as haemoglobin (oxygen transport molecules in red cells in human blood), according to studies done in 1911. The difference between the two is that in human blood the metallic element of the haemoglobin is iron, while in chlorophyll this atom is magnesium. Chlorophyll goes into the red blood cells immediately. The red cell count was returned to normal within 4 to 5 days of the administration of chlorophyll in animals which were known to be extremely anaemic.

Chlorophyll was praised in the 1940 American Journal of Surgery by Benjamin Gruskin, M.D. for its antiseptic benefits. The article recommends the following clinical uses for Chlorophyll - to clear up foul-smelling odours, neutralise infections, heal wounds, hasten skin grafting, cure chronic sinusitis, overcome chronic inner ear inflammation and infection, reduce varicose veins and heal leg ulcers, eliminate impetigo and other scabby eruptions, heal rectal sores, successfully treat inflammation of the uterine cervix, get rid of parasitic vaginal infections, reduce typhoid fever, and cure advanced pyorrhoea in many cases.

Nutritionist Bernard Jensen lauds the virtues of Chloryphyll because of the magnetic and electrical quality of the raw enzymes it contains. According to Dr. Earp-Thomas, 15 pounds of fresh wheatgrass is equivalent in nutritional value to 350 pounds of the choicest vegetables.

A small amount of wheatgrass in the human diet helps prevent tooth decay. Tooth decay is the result of other degenerative changes in the body. Gargle with wheatgrass juice for toothaches. Gargle with wheatgrass juice for a sore throat.

Taking wheatgrass juice we wi!l feel the difference in our sense of strength, health, spirituality, endurance and wellbeing. Research scientist Dr Birscher called chloryphyll "concentrated sun power. Chloryphyll increases the function of the heart, affects the vascular system, the intestines, the uterus and the lungs"



Wheatgrass and radiation

Tests have been made which point to a chlorophyll (wheatgrass) rich diet affecting the survival of experimental animals after lethal doses of radiation.* In 1950, Lourau and Lartigue reported that cabbage supplement (chlorophyll) increases the resistance of guinea pigs to radiation.

In general animals have been observed to choose, during periods of illness, a diet consisting almost exclusively of green vegetation.

How much?

Start with one ounce a day with a small amount of water. As you become accustomed, stop the water and work up to 6 ounces of wheatgrass juice a day. Your energy level will be very high. Wheatgrass juice should be mixed thoroughly with your saliva before swallowing. Drink slowly one hour before meals. Wheatgrass juice is a powerful cleanser and may cause nausea, through starting an immediate reaction with toxins and mucus in the stomach.

Toxicity studies have shown that chlorophyll is absolutely non-toxic when administered orally or intravenously to animals and humans.

The juice should be extracted either by chewing or utilising a slow action machine. Some manual juice extractors are very good for the purpose. Grasses can be grown year round in any apartment or house, city or country. Wheatgrass is alive and feeds oxygen to your body. Use only organic seed, probably available in your healthfood store.

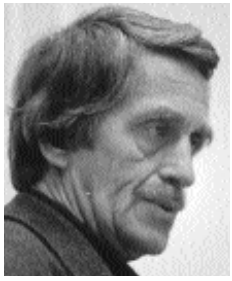
*Reduction of X-Radiation Mortality by Cabbage and Broccoli. P.S.E.B.M. 1959. USA

Suggested reading on radiation:
Are You Radioactive? Linda Clark, Pyramid Press;
Health and Light John Ott, Pocket Press

Errors in views on pathogenesis, prevention and treatment of AIDS

A persistent glutathione deficiency is the key to the understanding of this disease

A. Hässig



H. Kremer

W.-X. Liang

Photos : courtesy of the authors

K. Stampfli

The term AIDS was created in 1983 by the Centers for Disease Control (CDC) and has been used ever since. It originates in the assumption that occurring opportunistic infections, e.g. Pneumocystis carinii pneumonia (PCP), and neoplams e.g. Kaposi's sarcoma, which mainly affect homosexual men, are caused by a hitherto unknown retrovirus. Up to date, the virus, called HIV, has neither been isolated nor charactised according to standard methods in retro-virology. The question arises whether opportunistic infections e.g. PCP, and Kaposi sarsoma, have a common pathogenetic mechanism. Such a common characteristic inherent to these diseases is herewith suggested. It is based on a persistent, endogenous increase in the production of nitric oxide (NO) as well as an exogenous supply of nitrite.

In physiological concentrations, NO plays a central regulating role, acting on components of the vascular and nervous systems as well as on immuno-logical and inflammatory processes.[1] Endogenous NO originates from arginin, via the enzymatic effect of NO-synthesis. There exist two types of NO-syntheses: the $Ca2^{+}$-dependent form produces the required physiological amount of NO. The $Ca2^{+}$-independent form originates from macro-phages, granulocytes and/or hepatocytes stimulated e.g. by g- Interferon, TNFa and bacterial lipopolysaccharides. This second NO-synthase rapidly catalyses the production of large amounts of NO with corresponding cytotoxic effects. A protective feedback mechanism is available, i.e. the raised amounts of NO inhibit the formation of IL-2 and IFNg within the Th-1-CD4+ helper cells by switching the T-cell system to the Th-2 profile.[2]

An essential function of Th-2 profile of CD4+ lymphocytes in stress induced hypercortisolism is to ensure the antiinflammatory action of cortisol until its level is back to normal. If the cortisol level remains high, the immune system persists in a Th-2-state of the CD4+ helper cells. This condition is characteristic of all autoimmune diseases[3]. Therefore, AIDS has to be classified within this group of diseases. A decreased cellular immune reaction and an increased humoral immune reaction is characteristic of these diseases and manifests itself in a negative cutaneous delayed type hypersensitivity reaction (DTH), such reactions normally being linked to a Th-1 profile of CD4+ helper cells.

Pneumocystis carinii is an ubiquitous fungus and does not cause any illness in immunologically healthy individuals. In conditions with a persistent Th-2 profile of the CD4+ helper cells the antioxidative activity in the alveolar area of the lung is weakened to a degree that oxidants of respiratory air are no more sufficiantly neutralized. In such a condition Pneumocystis fungi can settle, multipliy and induce pneumonia.[4]

Where to classify aids pathogenetically?

In third world countries, AIDS, ('Slim disease') may be grouped within Protein-Energy-Malnutrition (PEM)-diseases. In so called industrialised countries, AIDS is a disease occurring in risk groups: homosexuals, drug addicts, recipients of blood and blood products contaminated with hepatitis viruses. A persistent catabolic shift in metabolism with chronic active hepatitis is characteristic of members of the risk group for AIDS.

Aids in third world countires

PEM, in third world countries, is the widest spread disease in childhood.[5] Kwashiorkor originates from a persistent nutritional protein deficiency with generalised oedema. Marasmus originates from a combined protein energy deficiency without oedema. Cellular immune reactions are severely weakened in all these diseases. Patients suffer from disorders caused by intracellular infectious agents, such as miliary tuberculosis, herpes simplex, varicella, measles, pneumocystis carinii pneumonia, malaria etc. Death in these patients is mainly due to thymolympathic atrophy. Beisel was right in naming AIDS in third world countries NAIDS (Nutritional AIDS).[7] The increased catabolism of structural proteins is not compensated for by the impaired nutritional supply of proteins.

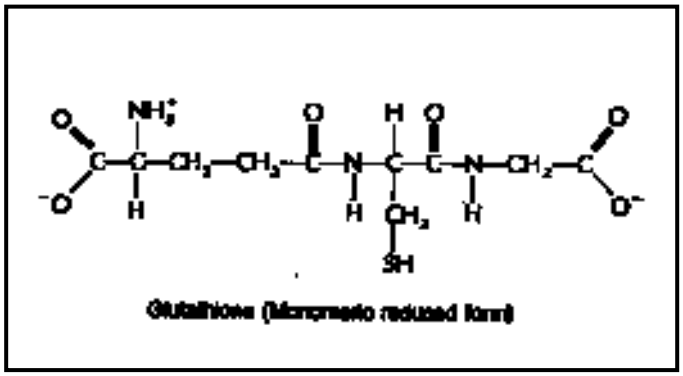
Aids in industrialised countries

A persistent catabolic shift of metabolism is characteristic of members of groups at risk for AIDS. This shift comprises a decrease of cellular immune reactions combined with an activation of humoral immune reactions, and is typical for autoimmue diseases.[8] In this regard patients at risk for AIDS in industrialised countries can be compared with PEM patients in third world countries. AIDS patients in industrialised countries also exhibit an increased catabolism of structural proteins, not balanced by the current nutritional supply of proteins. This is mainly caused by an increasing deficiency of glutathione. The working team of Dröge has clearly shown that in AIDS the metabolism can be compared to protein catabolism in cancer and the elderly.[9,10] They also demon-

strated that an intracellular deficiency of glutathione in lymphocytes strongly decreases their immunological function.[11,12] This is also the case in gut epithelia in inflammatory bowel disease.[13] Another characteristic of AIDS patients in industrialised countries is a chronic active hepatitis (hepatitis B, hepatitis C and/or hepatitis with auto-antibodies) which is present in almost all those individuals. As already shown in a recent publication, the anti-HIV test gives an indirect indication of a chronic active hepatitis.

Glutathione deficiency causing hepatitis

In the early fifties it was recognised that blood and blood products of healthy blood donors occasionally induce a severe, sometimes lethal hepatitis in sick recipients.[14] It still remains unknown in which way the stress condition of blood recipients is involved. Lethal paracetamol liver intoxication and its recovery brought about by high doses of acetyl-cysteine indicates that the liver, due to glutathione deficiency has only a limited antitoxic capacity.[4] It is assumed that a liver lacking a sufficient amount of cysteine and methionine for glutathione formation persists in a state of a chronic active hepatitis. We think it might be worthwhile to clarify this pathogenetic mechanism and to test whether a supplementary nutritional intake of acetyl-cysteine or cysteine- and methionine-containing protein mixtures may ameliorate the antioxidative activity of the liver.[15] Brzosko has shown in comprehensive investigations that antioxidative polyphenolic plant mixtures, such as Padma 28, reduce the inflammatory state in chronic hepatitis.[16]



Representation of atomic structure of a molecule of glutathione

How to counteract glutathione deficiency in anti-hiv positive individuals?

As clearly stated in the work of Dröge and the Herzenberg's an increasing deficiency of glutathione plays a crucial pathogenetic role in the transition from pre-AIDS to a full blown disease.[10,17] The question is raised how to correct this deficiency both nutritionally and pharmacologically. The ad-ministration of acetyl-cysteine as glutathione agonist is essential in an acute stage. In a chronic stage, however, it is important to balance the deficiency of glutathione by cysteine- and methionine-containing protein mixtures. As shown by Bounos, a nutritional administration of native whey products is also appropriate.[15]

Errors in the treatment of aids

As the pathogenesis of AIDS is associated with an increasing oxidative shift of metabolism, off a redox balance, the basis of prevention and treatment should comprise the re-establishment of the organism's redox equilibrium. As one essential aim of prevention and treatment is the maintenance of aerobic energy formation in mitochondria, the administration of nucleoside analogues, e.g. AZT, has to be considered as iatrogenic error. As shown in our review "15 years of AIDS",[8] these drugs cause in mitochondria a severe deficiency of the ATP formation, the key substance of metabolic energy. This first weakens the skeletal muscular system, followed by multi-organic damage not only of the heart muscle but also of the brain, nerve system, liver and pancreas, ultimately leading to the patient's death.

The generally applied new principle of therapy, i.e. tri-therapy in combination with HIV- protease inhibitors, is compromised by heavy side effects. In addition to the appearance of kidney stones, liver damage, diabetic metabolic disorders, CMV retinitis and haemolytic anaemias, these protease inhibitors lose their effect on the inflammatory process after a short while. By mistake, this is usually interpreted as after-effect of a formation of resistancy of "HIV". Further, a long-term prevention and therapy of AIDS patients with trimethoprim-sulphamethoxazole has proven harmful.[18]

Conclusion/summary

AIDS is associated with an increasing oxidative shift of the metabolism, off the redox equilibrium. Pathogenetically, an increasing deficiency of glutathione plays a crucial role.

In third world countries, AIDS is to be classified among Protein-Energy-Malnutrition (PEM) diseases. These patient's cellular immunity is severely weakened. They die from infections in the context of thymolymphatic atrophy.

In industrialised countries AIDS is largely restricted to risk groups such as homosexuals, drug addicts and recipients of blood and blood products, contaminated with hepatitis viruses. These patients suffer from a persistent catabolic situation of their metabolism, weakening cellular immune reactions and activating humoral immune reactions. Associated with this disorder is a progressive deficiency of glutathione, as in PEM patients in the third world. Having presented this particular pathogenetic mechanism, we attribute to the persistingly raised NO level inducing a progressing deficiency of glutathione a major role in the development of AIDS.

Almost all of these patients suffer from a chronic active hepatitis. This may explain the restricted anti-oxidative capacity of the liver in a state of glutathione deficiency.

A successful prevention and treatment of AIDS should comprise the elimination of pro-oxidative and nitrogenic stress effects combined with a nutritional and pharmacological treatment of the glutathione deficiency.

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Authors' addresses:

Prof. Dr. med. A. Hässig
Prof. Dr. med. W.-X. Liang
Dr. med. K. Stampfli
Studiengruppe Ernährung und Immunität
Elisabethenstr. 51
CH-3014 Bern, Switzerland

Dr. med. H. Kremer
Metzendorfer Weg 36
D-21224 Rosengarten-Tötensen
b. Hamburg, Germany

Oxidative stress, HIV and AIDS

E. Papadopulos-Eleopulos [1], V.F. Turner [2] and J.M. Papadimitriou[3]

Photo : Joan Shenton

Photo : David Smith

[1] Department of Medical Physics,
[2] Emergency Department and
[3] Department of Pathology (University of Western Australia), Royal Perth Hospital, Wellington St., Perth 6001 (Western Australia)

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As long ago as 1983, one of us (E.P.-E.) proposed that oxidative mechanisms are of critical significance in the genesis of AIDS (acquired immune deficiency syndrome). A prediction of this hypothesis was that the mechanisms responsible for AIDS could be reversed by the administration of reducing agents, especially those containing sulphydryl groups (SH groups). The discovery of HIV resulted in a broadening of this hypothesis in that it considered oxidative stress as a principal mechanism in both the development of AIDS and expression of HIV (PapadopulosEleopulos, 1988; Papadopulos-Eleopulos et al., 1989). However, the general acceptance of the HIV hypothesis of AIDS completely overshadowed this alternative hypothesis, and although many other scientists have questioned the role of HIV in the causation of AIDS (Duesberg, 1987; Root-Bernstein, 1990) Robert Gallo and most AIDS researchers consider HIV to be the sole "sine qua non" cause of AIDS.

Notwithstanding, some flaws, especially recently, have appeared which cast serious doubt on the prevailing HIV/AIDS hypothesis. Luc Montagnier, the discoverer of HIV, is presently of the opinion that cofactors are necessary for the appearance of AIDS (Lemaitre et al., 1990). It has been accepted by researchers at the CDC that KS (Kaposi's sarcoma), the first and most specific of the AIDS indicator diseases, for which the explanation of the HIV hypothesis was put forward by Gallo in 1982, is not caused directly or indirectly by HIV (Beral et al., 1990). On the other hand, recent empirical observations from three seemingly unrelated areas of AIDS research are in agreement with the hypothesis that oxidative mechanisms play a critical role in HIV expression and AIDS development.

1) Pompidou et al. (1985a) and more recently researchers from many other institutions (Lang et al., 1988; Brewton et al., 1989; Reisinger et al., 1990; Hersh et al., 1991) have shown that a reducing agent, diethyl dithiocarboliate, previously used as an immunomodulator, and inhibitor of tumour promotion, may be useful in improving the immune response in HIV infected individuals and in preventing and treating AIDS. Other reducing agents have also been found to have similar effects (Schulof et al., 1986; Wu et al., 1989).

2) In 1989, Eck et al. measured the level of acidsoluble-SH groups in plasma and the intracellular concentration of reduced glutathione (GSH) in peripheral blood mononuclear cells (PBMC) and monocytes in HIV-infected patients: both were found to be significantly decreased. Following the above report, Buhl et al. (1989) determined the glutathione concentration (reduced, oxidized and total) in plasma and lung epithelial lining fluid of symptom-free HIV seropositive individuals: in both tissues, both the reduced and total GSH concentration was fqund to be significantly decreased.

3) In 1985, Pompidou et al. (1985b) and more recently many other researchers including Anthony Fauci have shown that reducing agents suppress the expression of HIV (Scheib et al., 1987; Bitterlich et al., 1989; Kalebic et al., 1991).

Because of the possible therapeutic implications of reducing agents in AIDS patients it is important to have a basic understanding as to why:

- reducing agents suppress the expression of HIV;
- asymptomatic HIV-infected individuals and AIDS patients have decreased stjiphydryl and total glutathione levels.

HIV expression and reducing agents

The answer to the first question is encompassed in basic retroviral research conducted over half a century. It is well known that all cells contain retroviral genomic sequences (Martin et al., 198 1 ; Callahan et al., 1989; Nakamura et al., 1991). Recently French researchers suggested that human DNA also contains sequences which are homologous with the HIV genome (Parravicini et al., 1988). Many eminent retrovirologists, including Weiss, did not exclude the possibility that retroviruses with gene sequences not originally present in cells may arise during the lifetime of the animal by duplication and/or recombination of endogenous proviruses or even by rearrangement of cellular DNA, caused by many factors including the pathogenic process itself, and that retroviruses may be the effect and not the cause of the disease (Weiss et al., 1971).

According to Temin (1974) who shared the Nobel prize with Baltimore for the discovery of reverse transcriptase (RT) and who, from the time of its discovery considered the enzyme to be constituent of all cells, not just retroviruses, the genome of a retrovirus (ribodeoxyvirus) may arise by rearrangement of the normal cell genome by the following mechanism. "A section of a cell genome becomes modified in successive DNA(W) to RNA(-) to DNA transfers until it becomes a ribodeoxyvirus genome. First, these sequences evolve as part of a cellular genome. After they have escaped as a virus they evolve independently as a virus genome. The time may be millions of years in germ-line cells and days in somatic cells". In fact, Temin and Baltimore (1972) did not exclude the possibility that, in at least some cases, particles which band at 1. 16 g/mi contain RT and have morphological characteristics similar to retroviruses, may be nothing more than

cellular fragments. Irrespective of the mechanism it is a fact, firmly established from basic retroviral research, that retroviruses can appear even in virus-free cultures with a rate that can be accelerated a million-fold by radiation, infection with other viruses and mitogens (Weiss et al., 1971 Aaronson et al., 1971).

Of particular relevance to the present discussion is the fact that all mitogenic agents including radiation exert their biological effect by oxidation of cellular sulphydryl groups (Papadopulos-Eleopulos, 1982).

Montagnier and his associate David Klatzmann were the first to draw attention to the fact that LAV infection of T4 cells in vitro does not lead to HIV expression unless the cells are stimulated. "Infection of resting T4 cells does not lead to viral replication or to expression of viral antigens on the cell surface, while stimulation by lectins or antigens of the same cells results in production of viral particles, antigenic expression and the cytopathic effect" (Klatzmann and Montagnier, 1986). Gallo also expressed the view that without "activation" the T4 cells do not express virus (Zaguri et al., 1986). But, apparently, they did not realize that oxidative phenomena are implicated in human T-cell stimulation (Sekkat et al., 1988).

As early as 1984 it was realized that in vivo HIV genomic sequences are not always detected in tissues obtained from patients with ARC and AIDS or, when found, the "signal" is low. According to Gallo and his colleagues "this low signal intensity could also be explained by the presence of a virus distantly homologous to HTLV-111 in these cells" (Shaw et al., 1984).

Anthony Fauci and his colleagues, on comparing the evidence obtained from the study of macrophages in vivo and in vitro, concluded: "These data indicate that the ability to isolate in vitro macrophagetropic strains of HIV does not reflect in vivo infection of circulating monocytes, but is related to phenomena of in vitro selection or adaptation" (Massari et al., 1990).

Furthermore, (a) to date, with perhaps one exception, no two identical HIVI have been isolated, not even from the same person; in one case where two sequential isolates were made 16 months apart, none of the provirus in the first isolate was found in the second (Saag et al., 1988); (b) the genetic data obtained in vitro does not correlate with the data obtained in vivo - "To culture is to disturb" (Meyerhans et al., 1989); (c) many, if not all, of the proviruses detected in vivo and in vitro are defective.

This data led researchers at the Pasteur Institute and their associates to conclude that (1) "the task of defining HIV infection in molecular terms will be difficult", (2) "virus isolated from PBMC may be produced by the complementation of defective genes or by recombination between two of them" (Meyerhans et al., 1989; Wain-Hobson, 1989). Be this as it may, of particular relevance to the present discussion is the fact that:

a) HIV has been isolated only from in vitro cultures;

b) no HIV can be isolated, unless the cultures, one way or the other, are subjected to oxidative stress, even although the tissue from AIDS patients is already oxidized; it may be then that oxidative stress is of pivotal significance in the detection of all retroviruses including HIV. If oxidation is a prerequisite for HIV expression, it follows that reducing agents will have the opposite effect: HIV will not be expressed in their presence.

Oxidative factors in AIDS patients

AIDS patients suffer from many opportunistic microorganisms. Like all cells, these microorganisms require reducing equivalents, including SH, for division and survival (Papadopulos-Eleopulos, 1982) which they obtain to the detriment of body tissues. In AIDS patients, a decrease in the level of SH may also result from malnutrition and diarrhoea. However, opportunistic infections, diarrhoea and malnutrition cannot account for the low level of GSH and acid-soluble SH found in HIV-positive, symptom-free, well-nourished homosexuals and haemophiliacs.

Since viral production also requires thiols, which they obtain from the host, it may be reasonable to assume that the decreased SH level in HIV-positive individuals may be the result of HIV infection, as has already been proposed for SIV-infected monkeys (Eck et al., 1991). However, because for both HIV and SIV expression, oxidative stress is a prerequisite, this cannot be the case, i.e. oxidation cannot be both the cause and the effect of HIV expression (Papadopulos-Eleopulos et al., 1991).

At first sight it appears that there is no common factor, apart from HIV infection, linking the various AIDS risk groups. However, homosexuals are exposed to relatively high levels of nitrites and anally deposited sperm, drug abusers to opiates and nitrites, haemophiliacs to factor VIII. All these are known potent oxidizing agents which oxidize many cellular reducing equivalents such as NADPH and all sulphydryl groups, including those of cysteine (acid-soluble thiols) (Papadopulos-Eleopulos, 1988).

In normal tissue almost all glutathione is found intracellularly in the reduced form (GSH) where it is also synthesized from glutamic acid, cysteine and glycine, in the presence of ATP and magnesium. Cysteine which is the rate-limiting amino acid cannot be substituted by its oxidized form, cystine. Oxidation of cysteine (acid-soluble SH) is also known to decrease cellular ATP and magnesium concentration (Tateishi and Higashi, 1978; Siliprandi et al., 1987). Malnutrition and diarrhoea may also lead to cysteine, magnesium and ATP deficiency.

As a result of the decrease in cysteine, ATP and magnesium concentration, the synthesis of glutathione will be inhibited. The oxidizing agents to which the AIDS risk groups are exposed would also directly oxidize GSH to GSSG. GSSG is efficiently excreted from cells (Sies and Akerbrum, 1984). Glutathione exported across the cell membrane interacts with gamma-glutamyl transpeptidase, an enzyme which catalyses the breakdown of glutathione by transferring the gamma-glutamyl group to an acceptor.

It should be noted that: cystine is one of the best acceptors for the gamma-glutamyl group; with exception of the kidney and pancreas, the highest activity of the enzyme is in the epididymis and seminal vesicles; the highest concentration of its soluble form, apart from urine and pancreatic juice, is in seminal fluid (Meister and Anderson, 1983). Thus, the systemic decrease of glutathione concentration in HIVseropositive individuals may result from both, decrease in synthesis and increased degradation. The oxidative stress to which the AIDS patients are subjected would lead to cellular anomalies in many cells, including lymphocytes, resulting in opportunistic infection, immunological abnormalities and neoplasia.

All this argues in favour of oxidation as being a critical factor in the pathogenesis of AIDS and HIV expression.

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Bad blood or bad science: are haemophiliacs with AIDS

Christine Johnson

Photo : courtesy of the author

***Christine Johnson** is a member of MENSA and a freelance science journalist from Los Angeles, USA. She is the Science Information Coordinator of HEAL/Los Angeles, is on the Board of Advisors of Continuum magazine and copy-editor of Reappraising AIDS. She has an extensive background in medicine, law and library research and is motivated by a desire to find out the truth about 'AIDS'. She has a special interest in making the information in technical science journals accessible to the public. Over the past four years she has followed the wor of the Perth group and written articles critical of the HIV antibody tests, including an extensive interview with Eleni Papadopulos-Eleopulos, which have been published world-wide.*

It's been called a holocaust; it's been called murder. An enraged community of haemophiliacs, who suffer from a rare hereditary bleeding disorder, has accused four drug companies of knowingly supplying them with blood clotting factor contaminated with HIV, the alledged cause of AIDS - now hundreds of them have died from AIDS.

In Japan, former health ministry officials Akihito Matsumura and Takeshi Abe were arrested. In France, Jean-Pierre Allain from the Central Blood Transfusion Service served two years; Michel Garretta and Jacques Roux were sentenced to four. Fifteen years after the fact, people have been hauled off to jail.

The American haemophiliac community, approximately 8000-10,000 of whom have tested HIV positive, and which has lost hundreds of its members to AIDS-defining illnesses, is incensed at what they believe has been done to them by an uncaring blood plasma industry. They accuse the pharmaceutical giants of making millions off them (a severe haemophiliac can spend upwards of US$100,000 per year for clotting factor concentrates), while ignoring the welfare of their "million-dollar customers." In the late'70s, developing a process to clean blood products of dangerous viruses was put on the back burner, deemed unprofitable. Even when safer imported products were available, government agencies protected American companies from competition by blocking their approval. After heat-treated factor was approved, old stocks of non-heat-treated factor were sold off to haemophiliacs, many of whom claim they became HIV infected.

Similar scenarios played out in virtually every industrialized country, where "blood scandals" hit the news. Government officials such as Allain and Garretta met their downfall and the pharmaceutical companies that distributed Factor VIII, the blood component that most haemophiliacs lack, have been the subject of massive lawsuits. In some countries, haemophiliacs have been compensated; in other countries, they have gotten nothing.

In Japan, litigation of nearly seven years was finally concluded in March 1996, with haemophiliacs diagnosed HIV-positivebeing compensated around US$415,000 plus US$1,350 per month. The heads of Japan's Green Cross Company knelt in shame before Japanese haemophiliacs and gave them a formal apology. Kawada Ruhei, an haemophiliac diagnosed HIV-positive, doubts that they really feel sorry: "My friends died one after the other...No, they were killed one after the other. I can never forgive this kind of thing. This crime...could be the worst crime in history."

In America, haemophiliacs diagnosed HIV-positive found themselves continuously stymied by the judicial system from obtaining any legal recourse for their suffering. Over a decade of activism and all-out legal warfare has finally led to a concession which is seen as too little, too late. Four companies are involved: Bayer, Baxter International Inc., Rhone-Poulenc Rorer Inc., and Alpha Therapeutic Corp., a U.S. division of Green Cross. Though not legally compelled to do so, the drug companies have offered a settlement to put an end to years of dissention: US$100,000 per person to HIV-diagnosed haemophiliacs, spouses and partners, and the families of those who have already died. A bitter community has resigned itself to this pittance, believing it to be the best deal possible. U.S. District Judge John F. Grady, charged with overseeing the settlement proceedings, commented that to suggest this amount was adequate would be "absurd on its face."

Hemophilia creates extreme hardships for those afflicted with it. One of the most expensive diseases to treat, it can leave one dealing with as many as 150 bleeding episodes a year, with pain, muscle damage, joint problems and arthritis requiring joint replacement surgery, and continual trips to doctors and clinics. Liver problems are common and many haemophiliacs have died of liver failure. The plasma industry claims that the blood supply is now clean; haemophiliacs have their doubts. The possibility of hepatitis C and other diseases is a constant worry.

The haemophiliac community has been emotionally and financially ground down by a decade of efforts to obtain justice. Allain's two-year sentence for the misdemeanor of "deception over the quality of products sold," seems like a slap on the wrist for the crime of the century. The day he got out on parole, the gendarmes were waiting to arrest him again, this time on the criminal charge of "poisoning," which carries a sentence of up to 30 years. But what if he has rotted in jail for a crime he not only didn't commit, but couldn't have committed?

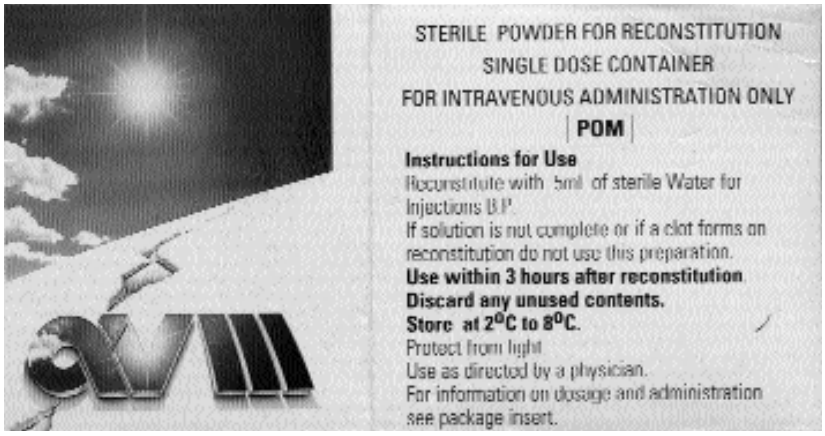
In a paper published in 1996 in the genetics journal Genetica, an Australian research team asserts that haemophiliacs are not, in fact, infected with HIV, and that substantial scientific proof exists that it was impossible for Factor VIII to ever have been contaminated with HIV, even before the days of heat treating.

diagnoses really infected with HIV?

Heading up the team is Eleni Papadopulos-Eleopulos, a medical physicist from the Royal Perth Hospital in Perth, Western Australia. Warm, vivacious, and charming, Eleopulos made me feel like an old friend as she explained her theories to me.

In the early '80s, she had proposed that cellular oxidation affects immune function and can cause disease. When a new pattern of immune deficiency was perceived, she noted that all people diagnosed with AIDS had in common their exposure to strong oxidative agents (blood products in haemophiliacs being one example): "From the very beginning, the data did not prove that AIDS was a transmittable disease. On the other hand, I knew about Factor VIII, that it's a very strong oxidizing agent - that's how it produces its effect. And I also knew that it wasn't a pure agent. I could see how it could be sufficient to produce the immune deficiency and diseases with which the haemophiliac patients were suffering." These days even a lay person appreciates this principle on some level: our cupboards are full of anti-oxidants such as vitamins C and E.

Her ideas later attracted the attention of Valendar Turner, an emergency medicine physician, also of the Royal Perth Hospital. Turner was interested because of the possible risk to himself and his staff in the extremely busy, overcrowded ER. Two of his colleagues in the ER had been needle-stuck with blood tested HIV-positive, and one of them developed testicular cancer 18 months later. Turner wondered if the six weeks of AZT he took played a part in that - after all, drugs used to treat cancer can cause cancer.



"Clotting factor is extracted from plasma, the cell-free, fluid part of the bood."

Other members of the team are David Causer, another medical physicist at the Royal Perth, and Prof. John Papadimitriou of the University of Western Australia. Papadimitriou is considered to be one of Australia's foremost experts on electron microscopy.

Eleopulos explained that four conditions were found in haemophiliacs which led to the mistaken assumption that they had contracted AIDS from blood products contaminated with HIV: 1) they were testing positive for antibodies believed to indicate HIV, 2) they had decreased T4 cell counts, 3) they had a clinical syndrome resembling the syndrome seen in gay men, and 4) some scientists claimed to have isolated HIV from their blood. "However," she adds, "these phenomena in haemophiliacs can quite readily be explained without the need for HIV or any other infectious agent. This is quite clear from our study of the scientific literature."

Clotting factor is extracted from plasma, the cell-free, fluid part of the blood. To prove that HIV could have somehow found its way into haemophiliacs, it would first be necessary to demonstrate that 1) donated plasma contains HIV, 2) these HIV particles can survive the process of extracting Factor VIII from the plasma, and 3) HIV can be found in the finished product. So far, this has not been done.

No one has actually seen HIV in blood plasma. Its presence is inferred from the results of indirect and nonspecific techniques applied to virus cultures. AIDS expert Jay Levy of the University of California was able to find what he believed were HIV particles in the plasma of only 30% of the AIDS patients he studied, and then, it was at a low concentration - 10 infectious particles per millilitre (ml). Levy concedes that this isn't enough to establish an infection.

It is widely accepted that the surface of HIV must be studded with knobs containing the protein gp120, which is crucial to the virus's ability to infect cells. But experts such as Hans Gelderblom of the Koch Institute in Berlin (Gelderblom has conducted most of the electron micrography studies of HIV) say that the virus loses it knobs when it buds from the cell. This means that cell-free virus is incapable of infecting other cells. Since plasma does not contain cells, if HIV were present, it would not be inside a cell and thus it would not be capable of causing an infection.

In addition, there is the dilution factor. Factor concentrate is made from the blood of thousands of donors pooled together. Statistically, only one or two of these donors might be infected, so by the time their blood is merged with that of uninfected donors, only a few copies of HIV, or even none whatsoever, would be present per ml.

What is the fate of those few particles as the plasma is processed into Factor VIII? "The particles," states Turner, "simply don't have the stamina to survive the biological hammering they receive during this process," which involves time delays, freezing, thawing, and drying. Each of these steps alone has been shown to dramatically reduce the number of HIVs inferred per ml. In the case of plasma, where only small amounts of HIV might be inferred to begin with, these combined steps would reduce its presence to virtually nil. Neither has HIV ever been found in the resultant Factor VIII by using electronic microscopy.

Factor VIII has long been supplied as a freeze-dried power which may sit on the shelf for weeks or even months awaiting use. Here's what the Centers for Disease Control (CDC) says happens when you dry HIV: "In order to obtain data on the survival of HIV, laboratory studies have required the use of artificially high concentrations of laboratory grown virus...the amount of virus studied is not found in human specimens or anywhere in nature... Although these unnatural concentrations of HIV can be kept alive under precisely controlled and limited laboratory conditions, CDC studies have shown that drying of even these high concentrations of HIV reduces the number of infectious viruses by 90-99% within several hours. Since the HIV concentrations used in laboratory studies are much higher than those actually found in blood or other body specimens, drying of HIV-infected blood or other body fluids reduces the theoretical risk of environmental transmission to that which has been observed - essentially zero."

So, even though there is no infectious HIV in plasma, no

meaningful amounts of HIV are present in the huge pools of plasma, and the processing of the plasma into Factor VIII, especially drying, would destroy any HIV that might be present, the CDC incomprehensibly still regards contaminated factor VIII as the source of haemophiliacs' "HIV infection" and AIDS-defining illnesses in haemophiliacs. Turner comments, "Given their own data, it is inexplicable that another explanation has not been sought."

The events that transpired to draw haemophiliacs into the fold of AIDS cases show how easy it was for science to take the wrong path and never find its way back. Haemophiliac activist Don Paul Lucas relates how haemophiliacs were first suspected to be in danger of contracting AIDS: "During the early years of the epidemic, when a viral agent was suspected as the cause of this new and frightening disease, the haemophiliac community was being watched very closely by the CDC. They knew that if there was a viral agent involved, it would certainly show up in our population. And they were right. The first case in a person with hemophilia was found in the summer of 1982. The CDC took immediate action to alert and advise the Food and Drug Administration (FDA) and the blood industry." In reality, the CDC had more of a hand in shaping the outcome of events: In 1982, it was posited that AIDS was like hepatitis B: caused by a virus and spread by sex and exposure to blood. For this theory to be viable, it was necessary that haemophiliacs start turning up with AIDS symptoms, which at that time consisted primarily of Kaposi's sarcoma and *Pneumocystis carinii pneumonia* (PCP). The favorite candidate as the cause of AIDS was the retrovirus HTLV-1 or a similar virus.

To gather proof for this theory, the CDC set up a task force which did surveys by letter and telephone in major American cities, specifically inquiring about cases beginning in 1979 of Kaposi's sarcoma in persons under 60 years of age (since the new immune deficiency syndrome had so far been seen only in younger gay men), or PCP in patients without a known predisposing factor. State health departments were asked to report any illnesses fitting this case definition.

As Eleopulos explains it, "Since HTLV-1 was claimed to be transmitted by blood and blood products, patients with hemophilia became a specific target." Within months, the CDC had its first three cases. All of these cases had *Pneumocystis carinii pneumonia*; none of them had Kaposi's sarcoma. One of these cases was in a 62-year-old man. However, since the official AIDS case definition at that time required the patient to be under 60 years of age, this case should, by definition, have been excluded as an AIDS case.

By October of 1983, the CDC had 23 reports of AIDS in haemophiliacs, none with Kaposi's sarcoma. Two of these were an intravenous drug user and a gay male. By the end of 1984, Robert Gallo's claim that AIDS was caused by a new retrovirus HTLV-III (later re-named HIV) was generally accepted and six months later, the CDC had counted a total of 80 haemophiliacs with AIDS; none with Kaposi's sarcoma. However, the mere presence of certain opportunistic infections does not necessarily indicate immune deficiency, as they are known to occur in people with, for example, normal T-cell levels.

With Kaposi's sarcoma practically defining AIDS in those days, why, then, was it believed that haemophiliacs, who didn't have KS, and whose hemophilia itself was a viable explanation for immunosuppression, were suffering from the same condition as gay men? Many haemophiliacs were testing positive on the new "AIDS test" developed by Gallo - the original ELISA test. This led the CDC to conclude that they were being infected with HIV from the use of blood products.

In Japan, Gallo's ELISA helped set in motion events that would lead to Takeshi Abe being arrested over ten years later. In August of 1984, Abe, an authority on hemophilia and former head of the Japan Health Ministry's AIDS research team, sent blood samples from 48 of his haemophiliac patients to Gallo in the U.S., then head of the National Institutes of Health. Twenty-three tested positive. Abe refused to publicize this information. It was charged by Japan's Mainichi Daily News that Abe "sacrificed his patients in a desperate effort to gain academic recognition." They say he was waiting for an opportune time to announce and take credit for finding Japan's first AIDS patient, meanwhile continuing to treat uninfected haemophiliacs with blood products that had not been heat-treated to "kill the virus".

In 1996, Abe was charged with professional negligence resulting in the death of one of his patients being treated at his university hospital. The 80-year-old Abe, referred to as "Doctor Death" by some members of an angry haemophiliac community, was released soon after his arrest on 100 million yen bail.

But were these early patients really infected with HIV? Within a year, the flaws of Gallo's ELISA test started becoming apparent. As *Nature* science journal put it, the limitations of the ELISA "were still being defined in the early months of 1985" when haemophiliacs were being diagnosed. Gradually, as more causes for a profusion of false-positive ELISA reactions were discovered, it became the standard of practice to always use another test to confirm it. This second test was the supposedly more accurate Western Blot. Nowadays, no one in the United States ever accepts a positive ELISA as proof of HIV infection. Curiously, in the UK however, only the ELISA is used - the Western blot was officially phased out in 1992.

Early on, the Western Blot was only occasionally used to confirm the ELISA. Even so, as Eleopulos points out, "the criteria used then to define a positive Western Blot would not satisfy even the least stringent criteria presently used..."

In spite of this, an unknown number of haemophiliacs to this day have never been re-tested. Tony Maynard received a notice from the claims administrator of the American settlement proceedings. He was told that he had not provided sufficient proof of being HIV infected, since the only test he had taken was an ELISA in the early 1980s: "Because my CD4 cells have always been low, I have not been retested." However, they were willing to accept his CD4 count of less than 400 as a suitable substitute.

In spite of the data, it came to be accepted that HIV is the only cause of low CD4 counts in haemophiliacs. In the early '80s when haemophiliacs were being used to prove the HIV theory, the following studies were available: Mortimer and colleagues found CD4s to be reduced in both HIV-positive and HIV-negative patients; Weiss stated that abnormal CD4 levels were most likely due to infusion of Factor VIII concentrates, as did the Kessler group and the CDC. Tsoukas observed that among 33 asymptomatic haemophiliacs receiving Factor VIII, two-thirds were immunodeficient, but only half were positive for antibodies used to infer HIV. Eleopulos comments: "Haemophiliacs may develop immune deficiency before HIV infection; that is, HIV is

In 1985, the AIDS case definition was revised. Regardless of your age, if you had KS, opportunistic infections, no other causes of immunosuppression, and had a positive HIV antibody test (or had not been tested) you had AIDS. However, Eleopulos and colleagues point out that the problem of low T4 cell counts had been studied in haemophiliacs, with the conclusion that factor VIII concentrate itself could cause the T4 cell decrease. Review of old medical records showed that many haemophiliacs before 1980 suffered from low white cell counts (they didn't count the T4 subset in those days), as well as other AIDS-defining diseases such as PCP, Candida, and tuberculosis.

Both the 1982 and 1985 AIDS case definitions exclude a person as an AIDS case if there is a preexisting condition to explain the immune deficiency. Since this is true for haemophiliacs, they should never have been classified as AIDS cases to begin with.

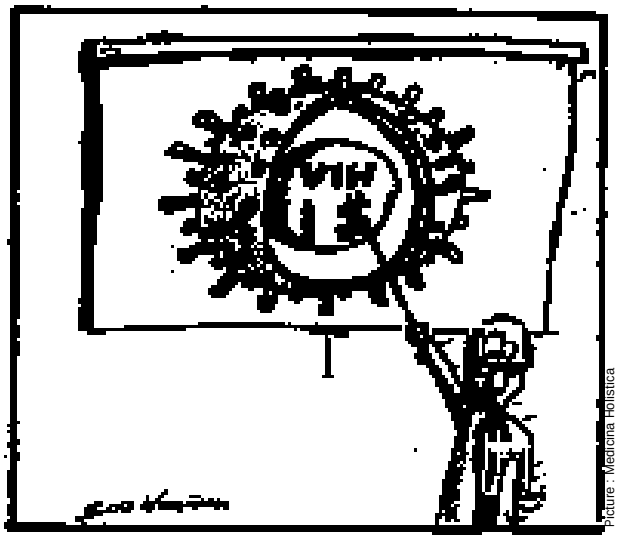
In 1987, the case definition was revised again, now making it possible to diagnose AIDS even if there was no direct evidence of immune deficiency and even if there was a negative HIV antibody test! The latest definition, released in 1993, makes it legitimate to diagnose AIDS if the individual is 'HIV seropositive' and has a T4 cell count of less than 200. "By the latest stroke of the pen," comments Turner, "a great number of haemophiliacs have become AIDS cases in spite of the fact that AIDS experts acknowledge that a positive HIV antibody test is not proof of HIV infection in haemophiliacs and that haemophiliacs have non-HIV causes for their low T4 cell counts."

not necessary for the decrease in T4 cells observed in haemophiliacs." Surely the pharmaceutical companies who agreed to shell out over US$600 million in damages to "HIV infected" haemophiliacs would have investigated this data?

According to Eleopulos, positive antibody tests in haemophiliacs represent cross-reactions, not HIV infection. The accuracy of HIV antibody tests has never been verified by an independent test that matches antibody results with the presence or absence of virus in the body (called a gold standard). The only acceptable gold standard is HIV isolation.

Eleopulos emphasizes the importance of this: "If ever a gold standard was needed for the antibody tests, it is in patients with hemophilia. With plasma donations being received from between 2000 to 30,000 individuals, each unit of factor VIII contains myriads of foreign substances, and haemophiliacs are exposed to these week after week, year after year. Each antibody generated from these foreign antigens represents yet another opportunity for a cross-reaction [a false-positive] with proteins present in HIV test kits."

Many HIV researchers have described experiments in which they have "isolated" HIV. Retrovirus isolation requires growing the virus in a tissue culture and then separating it from everything else that is not HIV. Eleopulos states, "This is clearly not the case. What passes for virus isolation is the detection of three phenomena: reverse transcriptase activity, a p24 protein, and rarely, looking for virus particles under the electron microscope. None of these phenomena is specific to HIV. Surprising as it might sound, particles indistinguishable from HIV in form and appearance are everywhere. They have been found in nerve cells, breast tumors, leukemic plasma, and the placentas of over a dozen different species, including humans and monkeys."



Picture : Medicina Holistica

"Surprisingly as it might sound, particles indistinguishable from HIV in form and appearance are everywhere."

Reverse transcriptase (RT) is believed to be the enzyme that enables the copying of RNA into DNA and gives rise to the name retroviruses. Reverse transcription was first explained as a feature of a retrovirus and is by some scientists considered unique to retroviruses. However, RT can be found in a variety of tissues, including viruses and cells such as lymphocytes, spermatozoa, and placenta, and, most important, the hepatitis B virus (HBV). Since almost all haemophiliacs have been infected with the hepatitis B virus (HBV), one cannot use detection of RT activity in a haemophiliac's culture to prove HIV isolation.

As for the p24 protein, it is common to all retroviruses, not just HIV. The appearance of p24 in other circumstances, including individuals who are HIV negative, or following transfusion of blood which is free of HIV, in many organ transplant recipients who for unknown reasons often have markedly and persistently raised p24 levels, in 50% of people with chronic viral hepatitis, and even in dogs (!) is not compatible with the idea that p24 always comes from HIV.

My attempts at obtaining the haemophiliac community's response to the Genetica paper were met with anger and hostility. Activist Michael Davon told me the paper was "a waste of ink and time, as is any discussion with the authors." Kevin Kelley called it a "lie," and told me I was being "hoodwinked by Dr. Eleopulos." My efforts at getting a haemophiliac to actually read the paper and comment on it met with little success. Most dismissed it out of hand: they had seen a lot of their HIV-diagnosed friends die - which meant the Australians just couldn't be right.

Most haemophiliacs I contacted adamantly asserted that "HIV-positive haemophiliacs get AIDS. HIV-negative ones don't." This view seems to be supported by a study done by a team of Oxford haemophiliac researchers headed by Sarah Darby (Nature, 7 Sept '95). Analyzing mortality data among British haemophiliacs from 1977 to 1992, they documented a marked climb in mortality that exclusively affected HIV-positive subjects. This paper is offered as conclusive proof that HIV causes AIDS and that this debate should be put to rest.

Eleopulos replies: "No one is denying that haemophiliacs who are HIV-positive are the ones who get AIDS. But what does being HIV-positive mean? 'HIV antibodies,' wherever they come from, are a marker for the propensity to develop certain diseases, just as the ESR (erythrocyte sedimentation rate) is a 'something wrong' test, that ox heart protein (cardiolipin) antibodies are predictive of syphilis, and that antibodies to horse blood predict glandular fever. Obviously, a person with glandular fever isn't infected with horse blood, nor does horse blood cause glandular fever. With AIDS, it's wise to remember that you're not always infected with what your antibodies tell you."

There are many studies that implicate clotting factor itself as the cause of AIDS in haemophiliacs. UC Berkeley virologist Peter Duesberg has shown that the more clotting factor, the more AIDS. But some haemophiliacs claim to have developed AIDS after one dose of factor. Turner addresses this concern: "The fact that some people get the AIDS diseases with little clotting factor doesn't mean much. Some people who are perfectly healthy develop bacterial septicemias and die within 24 hours. There are multiple reasons, mostly unknown, for individual susceptibility. Does anyone know why some people get some diseases?"

Aren't we simply replacing the missing Factor VIII in haemophiliacs - bringing them up to speed with the rest of the population - and why should that cause illness? The problem is, Factor VIII up until recently wasn't available in a pure form. The only way you could get it was mixed in with lots of foreign proteins. To get enough Factor VIII, haemophiliacs ended up taking a concentrated blood product made up of as little as 1% Factor VIII and as much as 99% foreign proteins.

It is these contaminants that are the problem, according to Dr. Duesberg, writing in Genetica. In this companion piece to that of Eleopulos, it was postulated that it was the foreign proteins which contaminate Factor VIII that are responsible for immune suppression in haemophiliacs. He cited a number of researchers who had reached the same conclusion.

Duesberg's paper points out that haemophiliacs treated with pure FVIII either did not develop immune deficiency or even recovered lost immunity. Noting this phenomenon, the Schwartz group (Lancet 1994) believed that pure FVIII might "inhibit HIV" and even suggested using it to treat AIDS patients in other risk groups!

The development of factor concentrate in the '60s was an incredible, life-saving breakthrough for haemophiliacs. Previously, haemophiliacs would live a very limited life, often being bed-ridden, and would usually die in childhood from internal bleeding. Now, they can live a long time but still have health risks the general population doesn't have.

It is understandably very difficult for them to accept the idea that the substance they rely on for their very life may be the cause of many of their problems. If claims of HIV had never come along, the fact remains the blood products were not clean and still might not be. Haemophiliacs have described themselves as being infected with "every microbe in the book." Stephen Keale told me, "I have tested positive for every virus that they can test for...I figure people with hemophilia my age (28) and older have every virus that there is." Could at least some of these "viral infections" be nothing more than multiple cross-reacting antibodies

misleading us?

If HIV were the cause of AIDS-defining illnesses in haemophiliacs, then logically, haemophiliac AIDS must be contagious. It has been claimed that the wives of haemophiliacs have developed AIDS. The CDC reported that between 1985 and 1992, 131 (around 16 per year) of the estimated 5000 haemophiliacs' wives were diagnosed with AIDS diseases. However, Duesberg indicates that 1.6% of all people over age 20 die each year, so, of all these wives, 80 would die naturally per year. Since AIDS-defining diseases of the wives of haemophiliacs are typically age-related opportunistic infections, mostly pneumonia (and never Kaposi's sarcoma, dementia, lymphoma, or wasting syndrome), how are these 16 AIDS cases per year to be distinguished from the 80 natural deaths that would occur in the same period?

Eleopulos disputes that any evidence exists that haemophiliacs' wives become infected: "Where is it? Where is the proof? Maybe in the mid 1980s a few were found to be positive. Back then, all you needed was a p24 band on the Western Blot. But if you test ordinary people who donate blood, you'll find a significant number of them have a p24 band. So, before 1987, these people were all considered to be infected with HIV. Now they wouldn't be. And if they had treatment...they could have become AIDS patients just by treating them with AZT."

Even so, it seems that there has been an explosion of AIDS since the advent of HIV on the scene. Don Paul Lucas told me, "I have been in the hemophilia community for 43 years. In the first 30 years this community didn't experience 10% of the deaths that it has in the past 13."

Prior to the AIDS era, haemophiliacs were observed with candidiasis, pneumonia, thrombocytopenia, lymphopenia, lymphoma, pulmonary tuberculosis, and Pneumocystis carinii pneumonia, all AIDS indicator diseases. Eleni Eleopulos comments, "Nowadays we accept that haemophiliacs appear to have an increased incidence of these diseases, and irrespective of whether this is either more frequent reporting or a true increase, can we be certain it is due to HIV?"

In 1982, haemophiliac deaths from all causes increased 200-300%. This means that we don't know with great accuracy how many haemophiliacs died and what they were dying from before reporting tightened up in 1982. There were few cases of PCP diagnosed in haemophiliacs before 1980 not because there weren't any, but because no one was aware of immune suppression in haemophiliacs, so no one was looking for it and the appropriate diagnostic tests weren't carried out.

During the AIDS era, PCP is now over-diagnosed. The CDC permits presumptive diagnoses of PCP, that is, definitive tissue diagnoses are not required in all situations. Other types of pneumonia can easily be mistaken for PCP without definitive diagnostic tests.

Not only that, but AIDS as a whole is over-diagnosed. The CDC examined 3001 death certificates listing AIDS as the cause of death, but only 85% met their own case definition! Turner told me that in 1992, the CDC found seven haemophiliacs who had been diagnosed as AIDS cases and discovered that none had a positive HIV antibody test, none had an AIDS indicator disease, and two had no symptoms whatsoever! However, all had low T4 cell counts.

Studies have shown that age is not correlated with AIDS risk in any group except haemophiliacs. But what is it that actually makes it more dangerous for haemophiliacs to simply get older?

First, the more years of life, the more vials of factor concentrate. Not only that, but haemophiliac treatment often includes horribly dangerous drugs called steroids for various conditions such as low platelet counts and joint problems. One of the first cases of PCP reported in the medical literature was in a haemophiliac receiving steroids.

At the large teaching hospital where the team works, Eleopulos and her colleagues are regarded as somewhat of an embarrassment (the Royal Perth Hospital hosts a large, orthodox AIDS unit). Nevertheless, bubbling with irrepressible humor, Eleopulos expressed dismay at the response to her work: "We never get any requests to talk about our ideas; there's no interest in providing any scientific answers to the questions we raise. I really gave up on expecting to convince any of the scientists. Ten years ago I sent to one of those Australian journals here a paper on Kaposi's sarcoma, saying there were other more likely causes than a virus. And the review was so awful! They said 'She has not got a clue.' Now, everybody agrees that Kaposi's sarcoma is not caused by HIV, even Gallo. But they forget who said it first."

Most HIV positives are now being treated with protease inhibitors. The FDA has expressed concern about the possibility that PIs are causing a drastic increase in the occurrence of bleeds in haemophiliacs. Many reports have been posted on the Internet of personal experiences that confirm this. In view of the common occurrence of liver dysfunction and failure in haemophiliacs, the use of drugs that are as tough on the liver as PIs seems to be a horrible blunder. News is now creeping in of people "crashing" on protease inhibitors - they're doing well until one day they suddenly just fall over dead. Yet, hundreds of haemophiliacs are compliantly dosing themselves with the HIV treatment du jour -the triple combo therapies that include AZT and similar drugs combined with protease inhibitors.

Haemophiliacs are the last people on earth who need to be exposed to the cruel toxicity of anti-HIV drugs, especially in light of the proof presented by Eleopulos that they aren't infected with HIV anyway! Yet, once a person has been diagnosed as HIV positive, they would probably drink Drano if PI guru David Ho, honored as Time magazine's Man of the Year in 1996 told them it would "inhibit their HIV." Eleopulos is discouraged that no one listens to her: "But I don't blame them. I mean, who are we? No one has ever heard of us. So who do they believe, us or the Man of the Year?"

There's no question that haemophiliacs have suffered enough. It's the agent of their suffering that needs to be reassessed, and therapies given that address the real problems: hemophilia itself and impure blood products. "I'm sorry," says Eleopulos, "I'm so sorry, that people are dying for nothing. And they're really dying for nothing. The sooner they stop treating people for HIV, the better."

Clair Walton whose British haemophiliac husband died described to me the agonizing struggle of life with this disease. She's exploring the dissident viewpoint - that HIV doesn't cause AIDS - and hasn't decided what the truth is, but she's convinced there's a lot more to the picture for haemophiliacs than HIV. Her husband Bryan was diagnosed as being HIV infected in 1985 on the basis of a single ELISA test that was never subsequently confirmed.

Bryan, a severe haemophiliac, was in agonizing pain a great deal of the time from the internal bleeding that sometimes could occur with the slightest movement or minor trauma. These bleeds produced arthritis, a common problem, and his legs were thin and wasted: "at the haemophiliac center, you'd see them sort of hobbling along, because their muscles had wasted away from the constant bleeding around the joints."

After developing lymphoma, often attributed to HIV, he was on chemotherapy, radiation therapy, and a multitude of dangerous medications including pain killers, AZT, and steroids. "It's no wonder haemophiliacs die," said Clair, "They're constantly taking drugs." She describes the AIDS ward in the top-notch British hospital where Bryan spent his last days as being a filthy place, with the patients being subjected to incompetence and neglect.

Bryan was born before Factor VIII concentrate was available. As a child, it wasn't anticipated that he would live very long: "He had to stay in bed for weeks at a time," said Clair, "so Factor VIII was a wonderful breakthrough. But after he was diagnosed with HIV, I saw him self-destruct. If you tell someone they're going to die, you take everything away from them." Even worse than steroids are the anti-HIV treatments, which are notable for their often life-threatening toxicity. AZT's known toxic effects include loss of blood cells and adverse effects on peripheral nerves and muscle. The latter two may particularly aggravate the musculoskeletal problems from which haemophiliacs tend to suffer.

Geneva, AIDS and the real gold standard

Tom DiFerdinando

Tom DiFerdinando is Executive Director of HEAL, New York

Photo : Michael Baumgartner

Ask most anyone to list the most important values in life and it is inevitable that on that list you will find "health". But what exactly is health? If one looks at both academic and popular culture "health", in theory, basically boils down to a space where disease is absent, pain and suffering are unknown, and survival is not an issue.

If, on the other hand, one takes a casual glance at the way people actually live, one finds an entirely different picture. In practice, maintaining health appears to include and, particularly with respect to children, seems to require an unabashed use of fear, poison, cruelty, abuse, injury, trauma, exploitation and manipulation.

The question then is if health, the world over, is such an esteemed social value, why do people do so much to physically, mentally and emotionally compromise it? The answer that I will propose is that in actual fact, it is not "health" that is valued or even socially relevant, but compromised health; and that the act of compromising health, though itself cruel and abusive, simultaneously serves a very profound social function.

COMPROMISED HEALTH

Authoritarian patriarchal social systems like our own tend to produce a lot of unconscious sadistic aggression. And it all requires an outlet. Indeed, in our society, the expression of both inwardly and outwardly directed aggression is not only permitted, it is encouraged. Its expression has been institutionalized in various physical, mental and emotional forms that have names like "racism", "sexism", "homophobia", "chronic and incurable disease", "child abuse", "greed", "elementary school", "addictions", "drug abuse", "modern medicine", "war", "criminality", "alcoholism", "the justice system" and "laziness", to name a few. The pertinent point though is not the number of institutions, but that each one of them has a profound aggression-regulating social function. To that end, each one is sanctioned by social committees and professionals who condemn them on the one hand while employing explanations and solutions that perpetuate them on the other.

And here is where "compromised health" comes into play. Abusive societies require a space that can only be found between a real definition of health and a restricted definition of health. Within this space one can invoke chance, genes, chemical imbalances, microbes, human frailty or Satan himself, to justify anything. Got a little racist rhetoric to vent? A little bullying to do? Some disease symptoms to endow with all of life's conflicts and miseries? Just reach in and anyone can absolve themselves of any and all responsibility for the destructive consequences of their actions. It's a sacred and holy place. A place to dump confusion or pick up moral slack. And it'll always be there for us to return to, provided we maintain a highly restrictive definition of health.

Again this restrictive definition, i.e. "compromised health", has emerged in the service of the above mentioned social institutions; institutions with unspoken yet essential venting functions. These institutions, in turn, have emerged to absorb the stress of all the inequalities and inconsistencies between the authoritarian world we live in on the one hand and our deepest humanity on the other. Like a social bookkeeping device, they serve to regulate the anxiety, hate, self-hate and chronic frustration of socially broken spirits. And their existence is completely justified by making "compromised health" a value. The fact is though, with an honest definition of health, we'd never get away with it.

A SOCIAL INSTITUTION CALLED AIDS

Between a real definition of "freedom and responsibility" and a restricted definition of "freedom and responsibility", one can find an institutionalized sub-space of our collective humanity that has been artificially expanded out into one magnificent, overriding and legally protected excuse for venting. This institutionalized sub-space is called our "social system". "The System" as it is popularly referred to, the governing complex against which all socially relevant activity is measured, breathes life into all our other venting institutions, beliefs and values, including "compromised health" - the unspoken value by which the entire system and everything within it is justified.

Within this social System, the spiritually destructive expression of compromised health - chronic isolation - is not only encouraged it is consciously organized. Indeed, to allow The System to perpetuate itself, this isolation of people needs to be actively and consistently deepened politically, economically, emotionally, culturally, racially, sexually, intellectually, medically, scientifically, nutritionally, and even physiologically ("always use a condom!"). A deeper understanding of its overriding nature and organizing function is easily accessed through its most shining microcosmic counterpart: that brutal but caring social institution called "AIDS". It is here that one can find the greatest concentration of excuses for compromising health, social venting, and the most complete and organized offering to the gods of social isolation.

AIDS, of course, did not develop in a vacuum. In fact, its inherited capacity for spiritually isolating people has taken the value of "compromised health" to its ultimate extreme. That's part of its social function - to develop the outlets for venting. It has brought together all the preexisting expressions of spiritual isolation and raised them to the level of a science. It is a space within which health is compromised to death. But to serve its overriding social goal, this compromise, like the bigger system that gave birth to it, has to be organized and sustained. And that is the function of the proverbial "AIDS Conference". At an AIDS conference, the number one threat to The System - "health" - is never mentioned, let alone discussed. And here thousands of people come together to make sure that it stays that way.

THE AIDS CONFERENCE

When asked what would have to come out of the 12th World AIDS Conference (WAC) in order that he could come away feeling fantastic, Dr. Anthony Fauci, head of NIAAD at the NIH in the US stated that he would need to see 100 "HIV+" people have their viral load reduced to undetectable levels within a year.

(I'll discuss "viral load" in a moment.) Further, when asked how it felt to have been one of the instrumental people over the years responsible for shaping the direction of AIDS research, he replied that it was very satisfying because he gets to help so many people.

But so far as this question of his achievement goes, by what criteria was he measuring his satisfaction? In lives saved? Couldn't be that. The AIDS Establishment can't boast of a single "cure" in seventeen years. So what could be so satisfying? That he has helped perpetuate the most lucrative medical industry in history? Businessman that he is, might be. Maybe when he said he has helped so many people he wasn't talking about the patients. But let's do the unthinkable. Let's give him the benefit of the doubt. How about if his satisfaction stems from a genuine belief that he is actually helping people? Given the introduction to this essay, one may already know where I'm going with this. I'll come back to it.

Bridging The Crap

I was invited to represent HEAL, USA at the alternative wing of the Geneva World AIDS Conference. On the plane over I decided to go into the main conference area with an open mind, deciding to give the AIDS Establishment the benefit of the doubt. Maybe what we were saying at HEAL for all these years was wrong. Maybe AIDS is infectious, HIV causes it and the treatments really do help to cure it. Maybe we really are dealing with a scientific and medical problem and not a social, industrial and prejudicial one.

Well that lasted for about ten minutes - just long enough to get into the airport. There, on the revolving luggage rack were large, full color HIV pharmaceutical ads, peeking out from behind everyone's luggage. I don't get ten feet out of the airport and I see large, colorfully seductive posters parading "A condom a day keeps the doctor away". Considering all the possibilities, I wonder aloud if it's a subliminal admission to life-threatening latex allergies. Not five minutes to the street and I see attractive, pastel colored banners hanging from lampposts advertising the conference theme "bridging the gap", an allusion to getting the governments of non-industrial societies to follow the lead of industrial societies and administer poison to their own people with public monies.

This situation continued for some time. Everything I saw or heard reinforced the fact that this conference had absolutely nothing to do with science or medicine, but everything to do with economics, politics and emotions. For the sake of time and space, I can sum up the entire social function of the conference experience with what for me, emotionally speaking, was its defining moment.

A Defining Moment

At one of the opening presentations there was a moment that sent shivers up my spine, a moment that in retrospect was a place where every official statement, conventional speaker, blood test, scientist, doctor, patient, pharmaceutical ad, set decoration, sales booth, government official, tote bag, lay person, poster, journalist, study, drug, ceremony, condom, and even every ray of official hope, intersected.

I was in an enormous auditorium where Drs. Fauci and Ho were supposed to speak. Luc Montagnier was going to introduce them. The stage must have been thirty meters wide, the crowd, including the balcony, must have been a couple of thousand in number, there was an attractive and enormously curtained backdrop, two giant video screens, a long, empty presenters table, a barren podium, all accented with romantically low lighting. The crowd was waiting with a quiet buzz. Then, a deep, resonant, bellowing voice comes over the intercom and says "Ladies and Gentlemen, the discoverer of HIV, Dr. Luc Montagnier". Vigorous applause spewed forth, and onto the stage, with a slow, almost measured walk, approached the Emperor himself. And I spontaneously laughed out loud.

It was actually quite a disturbing moment for me. I didn't expect my laughter, and when I reflected on the moment I came to appreciate how devastatingly serious it really was. This was the Emperor with no clothes. And the crowd responded like experts in textiles. To experience the precious fable first hand, in real time and at this level of magnitude, for me emotionally bridged the gap in an unprecedented way between the ultimate spiritual isolation, "AIDS", the ultimate social decoy, "HIV", and the depth of the madness by which our present day society is, like the Emperor's new clothes, woven together. It is really sick.

Viral Load

One of the most powerful ways the sacred space between a full definition of health and a restricted definition of health is socially enlisted in medical science today is with biotechnology in general, and the "viral load" test in particular. Here, both the physician and the patient are not only completely absolved of any responsibility for abusive choices or destructive consequences ("Well the test says..."), there is, with "viral load", a brutal opportunity to exploit any prior susceptibility for self-destruction on the part of the patient, and any prior susceptibility on the part of the doctor to quietly enjoy the chronic, low grade terror of the patient.

Dr. David Ho reached particularly deep into that sacred space one day and pulled out a brilliant concept called "undetectable levels". This concept makes for another one of those golden opportunities periodically provided by the AIDS establishment where, if one is ripe for it, one gets to imaginatively fill in the gaps of a paradoxical situation with the most devastatingly horrific worst-case scenarios possible. With "viral load", you get to go the long and painful distance of poisonous medications, "side-effects", the tyranny of not knowing, threats of premature death, thousands of dollars spent and the terror of an "HIV" diagnosis, only to get to "undetectable levels" - a place that, qualitatively speaking, is absolutely no different than the place you started from since you still don't know if you're out of the woods. How cruel.

The reason I mention this is simply to illustrate that this test, like everything else in conventional AIDS, has a social function rather than a biological one. It was taken from the realm between health definitions rather than the realm of biology. Consequently, the social concepts "viral load" and "undetectable levels" not only render any genuine question of health totally meaningless but, as practiced, provide an emotionally cruel and abusive opportunity. They give both those who use them and those who are subjected to them a chance to reach into that sacred space and find absolution in a way that is even more insidious than with the "HIV antibody" test itself.

THE ALTERNATIVE AIDS CONFERENCE

The Alternative AIDS Conference had three major components to it. On its opening day it launched the first scientific "Long Term Survivors" study of its kind where those who've been labeled "HIV+" for seven or more years and who have refused all HIV medications will be studied for the health benefits (see elsewhere in this magazine); second, and of enormous significance, it held the most important meeting of the entire official conference - a satellite meeting where, as a part of the official AIDS conference, it was concluded by an independent panel of scientists that HIV has never been isolated in a purified sample and therefore, (see Joan Shenton's article elsewhere in this magazine) the AIDS Establishment has no scientific "gold standard" for the "HIV proteins", and, therefore, no scientifically valid "HIV antibody test"; third, the alternative conference had a daily, week long line up of speakers and presentations of its own. Here I'll only focus on the latter.

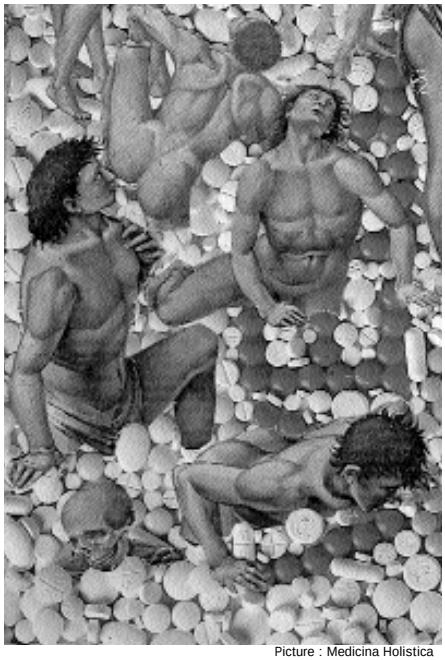
Although it was intended as an offering of alternative views for people attending the general AIDS conference, the alternative AIDS conference was so poorly attended (probably simply for logistical reasons - the presentations had to be held some distance from the Palexpo center) that it basically amounted to an opportunity for all the AIDS dissident groups around the world to get to meet, talk, and make presentations to each other. This was exciting to me because it was great to see so many passionate, intelligent and well educated people working with heart toward a common cause. But more importantly it helped to provoke new strategies for the coordination of future efforts.

Truth, Bias and the Integrated Whole

There is much I would love to share about the entire experience in Geneva, and many individuals, groups and wonderful experiences I would love to single out and pay homage to. But for the sake of limited time and space I'm going to stick to one observation, one I feel to be the most striking and, with respect to

future strategies and efforts, the most socially relevant. One of the biggest strengths among the dissidents is that although they all agree HIV is not the cause of AIDS and that HIV medications are deadly poisons, there is little else that is agreed upon. There are differing views on the true meaning of the antibody tests, there are differing views on HIV, there is even disagreement on what AIDS is, not to mention differences pertaining to alternative medicine, biology and the true nature of that esteemed value "health".

The movement is dynamic, and it points up the fact that the "AIDS crisis" is about a lot more than a purported virus. Collectively, the AIDS dissidents are bringing out for all to see lost chapters, unresolved conflicts, corruption and censored crises from throughout the histories of science, medicine, technology, biology, immunology, psychology, sociology, physiology, virology, retrovirology and even nutrition. With respect to the question of health, AIDS is just the tip of the social iceberg! I'll only add here that - to help keep potentially differing egos at bay in the face of disagreements - nature is an integrated and internally consistent whole within which we are all a related part; the only thing that can stop us from accessing the total picture of the deepest ultimate (and ultimately self-revealing) truths is our own personal bias, i.e. the very thing that defines the distance between a real definition of health and a restricted definition of health.



Picture : Medicina Holistica

THE REAL AIDS CONFERENCE

By excluding the question of "health", the AIDS phenomenon - like the broader social system itself - operates in the space between a real definition of love and a restricted definition of love. If the AIDS establishment were serious about wanting to help "people with AIDS", AIDS conferences would have a totally different character. There would instead be many thousands of people attending to discuss the real virus - the mass enslavement, exploitation and spiritual isolation of people. We would be discussing the fact that we are living in a rigged system, and that we need to make clear the distinction between biological concepts with biological functions and biological concepts with social functions.

The concept of a "deadly virus" itself has a social function. It too has been pulled out of that space between the two health definitions. Everything in life affects everything else in life. But here we have a foreign microbe that, in the absence of other health risk factors, jumps inside you, wreaks havoc in your life, and there is nothing you can do about it except turn to the experts. This is a social concept, not a biological one. Those who have been labeled "HIV+" are forced to confront a political, economic and emotional infection - not a biological one. That's why treating the biological infection can kill you and treating the spiritual one can liberate you.

At the core of the AIDS dissident movement has been an effort to bring to a wider public the fact that there is a scientific controversy around whether or not HIV causes AIDS. There are cash rewards awaiting the non-existent individual who comes forth with the scientific study that proves it does. There are even unclaimed cash rewards awaiting the equally non-existent individual who comes forth with the scientific proof of a whole, purified infectious HIV.

Really what is being touched upon here - but is apparently being left for its own time - is the entire microbe theory of disease. We could just as well ask "Where is the study that proves that any microbe, in the absence of other health risk factors, causes any disease?". Laboratory proof you ask? Keep in mind if you will a common sense fact that is consistently misrepresented by our esteemed scientists - that both lab animals and cellular cultures have to be stressed before they can break down into illness. In other words, they have to be made unhealthy before they can be made sick. At this point one is forced to ask, "Does the microbe theory of disease have a social function or a biological one?".

The Real Gold Standard

The point I am building up to here is that this question of "risk factors" ultimately begs the real and most socially relevant question of all, "What is health?" - the true focus of a real AIDS Conference. "Health" is the true medical and social "gold standard". And, at least in conventional science and medicine, it has never been "isolated"; never been "purified". This fact, by the way, scientifically invalidates pretty much all medical tests and treatments, rendering them all "invalid" in a way identical to the gold-standard-free "HIV antibody" tests. But, having all come from that same sacred space, conventional science and medicine too have a social function; ultimately, that function is not only to provide opportunity and justification for all manner of self, social and ecological destruction (read "venting"), but to make sure this question of health is never even asked, let alone answered. In fact, most any time anybody has honestly asked, they ended up paying dearly for it.

The medical establishment's own Dr. Arthur C. Guyton, author of the university standard Medical Textbook of Physiology, discovered in the late 1950's what he called the "dry state", a physiological condition within which disease is impossible. This even hit the news. But since that time, with each subsequent edition of the book, more and more of his discovery gets edited out.

Hans Seyle gave a scientific explanation for "stress", demonstrating that when subjected to "stressors", cells take on a quantitatively and qualitatively different but predictable character. The character of the cell is then determined by its environment, i.e. by what Guyton calls the "wet state". Wilhelm Reich went much further and scientifically demonstrated that when subjected to chronic and emotionally abusive stressors, not only cells, organs and entire organ systems but the entire person takes on a quantitatively and qualitatively different but predictable character.

But the problem is, to maintain the structure and function of today's abusive world we don't need health; we need compromised health. We need a space between the two where we can talk "chance", "genes", "frailty" and "Satan" because, like HIV, they all serve as powerful social decoys. One doesn't need HIV to explain AIDS, one needs it to keep from explaining AIDS. Once all responsibility is ascribed to any of these outside forces, we can then discharge with impunity all of the destructive energies that are generated within us by an emotionally abusive social system. We still need racism, we still need child abuse, we still need chronic illness, greed and addictions. We need AIDS and "HIV". Without them, we'd all be held fully accountable for all of our inwardly and outwardly directed actions, destructive or otherwise.

So what's the solution? Ironically, the solution is to stop looking for "the cure". If social institutions like AIDS have social origins and social functions, then approaching them medically is at worst, destructive and at best, evasive. Social institutions cannot be "cured". They can only be made unnecessary.

And so, with all the foregoing, we can now understand the true meaning of how it is that, when asked what would have to happen at the 12th World AIDS Conference for him to walk away feeling fantastic, Dr. Anthony Fauci can say, with a totally straight face, "I'd need 100 HIV+ people to have their viral load reach undetectable levels within a year". And we can also understand that when he said his work throughout seventeen years of AIDS research has been very satisfying, it wasn't because he helped people to get a taste of health.

It was because genuine questions of "health" have never even entered the discussion. That is the true function of an AIDS conference, indeed, of most any medical conference. That too is Dr. Anthony Fauci's primary function. And he has fulfilled it magnificently. Within a society that has "compromised health" high on its list of values, this is the ultimate achievement and indeed something to be very, very proud of.

Silencing Scientists and Scholars in Other Fields;

Power, paradigm controls, peer review, and scholarly communication. by Gordon Moran

Photo : Nigel Luckhurst

Ablex Publishing Corporation,
Greenwich Connecticut USA and London England.

Making a noise about being silenced

In modern society, few individual or communal activities do not somewhere have a theory to explain them. The more subterranean the activities the less likely it is that any theory is common public knowledge. Yet this is not entirely true, for there are many quasi secret or subterranean acts, to which social scientists and psychologists have rushed to append a theory; almost entirely to aid social control. We have thousands of studies of the most esoteric criminal groups, sexual practices, poverty and debt. What we do not have are constructive, independent theories about the secret and disguised social activities of powerful individuals and groups.

Whenever a theoretical framework for power and the powerful is outlined, the powerful and their agents term it a 'conspiracy theory', 'biased' or 'a minority position'. Such denigration has become increasingly less effective in the last few years in a society awash with everyday examples of censorship, social scandal, dirty tricks and the unvarnished representation of vested interest. In the post-industrial era, unbounded by the constraints of political, industrial and religious authority, many more people are blowing whistles and deconstructing powerful, previously trusted, icons. Of course new deconstructions of these old power relations do not necessarily change the nature of their reality.

Of major importance to our understanding of power is the deconstruction of the way in which decisions are made and the routes by which these decisions are informed. It would not come as a surprise to many people that in the modern world there are large numbers of people dedicated to protecting some information and the power it lends, while censuring other information because of the threat it poses. The control of professional and public information and the machinations behind its censorship or its utterance, is an important area of social analysis. That it has not become an important area of theorising is principally due to its link with political, social and professional authority.

Gordon Moran's seminal book, Silencing Scholars and Scientists in Other Fields, tries to place on record a systematic view of the incidence of censorship and information manipulation, particularly in science but also in academia generally. Moran is a scholar who first became interested in the conflict of ideas implicit in power, when, as an art historian, he was dragged into a battle over the authorship of a famous Italian equestrian portrait.

The revelation of secret histories of the kind dealt with in Silencing, having previously escaped the grasp of academics has become over the last decades, almost entirely the domain of the journalist. The problem with journalists is that they are themselves often deeply implicated in value laden social constructs. They have also come to be exhaustively superficial; few of them would wish, or be able, to put forward a theory or an analysis.

One of the most refreshing strengths of Moran's book is that it is scholarly and that because of this its contents have a certain authority. While retaining an empathy with the less powerful protagonists the book is free of the general madnesses that often accompany this kind of research; overarching theories of power so loosely put together that they can immediately be disposed of as 'conspiracy theory'.

The scholarly style of the book, however, means that the reader is almost bound to compare the book with other modern, more or less academic works about dramatic or socially critical subjects. There have recently been a number of well grounded studies of the chemical industry, the PR industry and the backlash against the green movement, which while remaining 'academic' and independent have been exciting to read and socially combative.

Unfortunately, such comparisons begin with first sight of Silencing, which the publishers have chosen to present as if it were a comatosing academic monograph on the mathematical relationship between silver lines and grey rectangles. There is no information about the book on the cover and to all intents and purposes the book resembles the kind of decultured academic literature which studies show to be read by an average of five people.

Because of the cover, and a dispute I had with the publishers (more of that later) I began the book with some trepidation, worried that I might find myself reading great swathes of technical academic text. I need not have worried, Moran has a good style and frequently uses the first person singular to introduce his own personal view.

This concession to narrative is not however enough to stop the book from falling between two stools. It is neither quite academic enough in terms of its consideration of social theory, nor subjective enough for us to see the very personal lessons which are learnt by those who find themselves intimately involved in being silenced.

These problems of presentation are not so much a critique of Moran's scholarship, as they are a pointer to how we might best write about social, political and academic conflict of the kind he describes. At times, Silencing reads like a 166 page literature review, studied with vignettes which describe academic conflicts. Because each conflict is dealt with in summary form, under a

heading describing the type of conflict it represents, it is extremely difficult to get inside the minds of the protagonists and understand their psychological, cultural and commercial motivations.

My favourite writer about academic and particularly literary conflict is the American Janet Malcolm. Malcolm's beautifully written books about people's intimate professional battles, in the field of journalism, psychoanalysis and literature, exhaust the terrain of the conflict, drawing on the history, psychology, culture and power of the protagonists. Malcolm's books, however, can also fall between two stools because what they gain in intimacy they sometimes lose in more general social analysis.

It occurred to me while I read Silencing that a combination of the literary style of Malcolm with the more academic style of Moran, might have produced a deeper book. Moran chooses as his introductory example to academic conflict, his own case in the field of art history. But for those not familiar with the row, this example is by no means long enough. I came to the conclusion that a better method for the book might have been to devote a full half of it to a particularly detailed conflict and then to draw the lessons from this conflict in the second half of the book, bringing in the detailed and varied evidence which Moran makes the core of Silencing.

Away from the book's method, I found I had one criticism of the content. Silencing clings, with a tenacious perseverance, to an entirely academic interpretation of the conflicts which it describes. The censorious power play is acted out by villainous 'other' academics, peer reviewers and librarians. The venue is in the great majority of examples, the university and the protagonists' weapons almost entirely words. Surely even in academia battles escalate, to be fought with more than words - grants are withdrawn, individuals are disciplined and punished, people are sacked and sometimes brought to court. And beyond academia there is a much wider social universe in which censorship, dirty tricks and struggles over knowledge take place, often in a quite physical manner.

I have felt bound to make the above criticisms of Silencing, not because the book is not worth reading, but because Moran has set himself an enormous task in a field in which there are presently no templates and few guides. I am very aware that my book Dirty Medicine which dealt with the kinds of disputes that Moran reviews, lacked structure and failed to place the narrative within a meaningful socio-political context. It is clearly important that we develop a critical theoretical position in this area of social investigation.

As a contribution to our present skimpy knowledge about how conflicts over information and power are shaped and particularly around which issues they are generated, Silencing is well worth reading. Some of the most publicly acknowledged battles which Moran deals with are those over AZT and HIV. It is on this subject, that even after all these years, our inability to theorise lets us down. Within what kind of theoretical framework do we place the intervention of Gallo with the viral theory of aids related illnesses and how do we analyse how this idea became the most powerful idea in its field of science? How then do we understand the almost complete moratorium and censorship which accompanied other ideas? One thing is certain, in this area particularly, we need many more independent studies of the social and professional behaviour of scientists. Increasingly scientists of varying hues are becoming the most powerful people in society - we need to understand who they are and how they got where they are and in whose interests they are likely to use their power.

The victims of academic suppression in a post-industrial world are in a uniquely disadvantaged position to fight silencing. They are often isolated, rational individuals who have an overtly liberal view of human behaviour. They are also people who have dedicated their lives to disseminating information to others. By their very nature they are often people without powerful friends, whose livelihood depends upon their institutional quiescence.

For the victim of silencing and for the dissident, combination is perhaps the most important self protection, closely followed by the need for a rigorous and solid alternative construct, which involves meetings, literature, conferences and any other kind of collective public record. Moran's book forewarns us that as the number of those who are silenced grows, it is important that they make plans to come together over their issues and share their information.

We might, for example, consider a conference of the silenced. Such a conference would be a venue not simply for airing dissident views but could be an important workshop within which we might approach the social theory of silencing and dissent in a post-industrial world.

Finally I would like to comment on the irony of having to wait two months and make five phone calls as well as being put through two inquisitions, before the publishers of Silencing deigned to send me a copy. The problem, apparently, was that I did not review for accepted mainstream peer-reviewed journals...

GENEVA DECLARATION OF PEOPLE LIVING WITH A POSITIVE HIV ANTIBODY TEST RESULT

We the people living with the label "hiv" positive and/or aids, with our well-being affected by policies based on scientific findings, place the following request to local, national and international aids, health and human rights authorities;

1. Access to all information regarding "hiv", aids and treatments.

i. Publicly funded medical research into relevant fields must be free from commercial and/or otherwise inappropriate interests. Breaching of this request must be viewed as putting our lives at unnecessary risk and may therefore be subject to legal prosecution.

ii. The health of those living long term with a positive "hiv" antibody diagnosis should be the subject of publicly funded studies.

iii. The media's responsibility is to report accurately and without censorship all issues regarding "hiv" or aids and relevant treatments according to Guideline 6/a of the International UN guidelines on hiv/aids and human rights[1]. Where censorship can be demonstrated it must be challenged by media regulatory bodies.

2. Right to medical care and social welfare assistance according to our choices and needs.

i. Non-toxic treatments and local resources (including natural medicines and traditional medical practitioners) should be given at least parity of availability and research with pharmaceutical treatments.

ii. It is the responsibility of each treating practitioner, if consulted, to access all potential treatments according to his/her practice, and reveal all information (including effects and adverse effects) regarding all treatment options to his/her client.

iii. Where a country offers welfare support, assistance must be based on each individual's needs unrelated to his/her treatment choices.

3. Protection of the rights of persons living with a positive "hiv" antibody test result.

i. This includes the right to privacy and protection against any form of discrimination based on one's health status.

ii. No person must be subject to forced testing and/or treatments.

London/Geneva, July 1998

1. "Laws and/or regulations should be enacted to enable implementation of the policy of widespread provision of information about hiv/aids through the mass media. This information should be aimed at the general public as well as at various vulnerable groups that may have difficulty in accessing such audience and not be inappropriately subject to censorship or other broadcasting standards."

Long Term Survivors Study launched in Geneva

Clair Walton

The Long Term Survivors Study was officially launched in Geneva on 28th June at the Alternative Symposia to the 12th World Aids Conference (WAC '98). Stefan Tanner from Aktion positiv Schweiz (ApS) opened the session with myself from Continuum, Tom DiFerdinando from HEAL New York and Michael Baumgartner from GaIA speaking about the need for and details of the study. Having already attracted considerable international support, many more interested individuals and organisations at the WAC '98, where Continuum had a booth, expressed their willingness to participate. Indeed, the presence of Continuum in the exhibition hall seemed a curiosity or surprise to some of the delegates being the only organisation challenging the "hiv" science. The Continuum booth received visitors from around the world who engaged in conversation, most of them happy to discuss and share experiences. It was evident that it was the first time some visitors had come into contact with people not only questioning the science, politics, and social aspects of "hiv"/aids but also, in some cases, living with a diagnosis long term, a sharp contrast to the usual professional aids worker.

The WAC '98 hosted its own long term survivor session with speakers presenting their experience. The usual dreary stories were heard; complications in maintaining a drug regime with a "normal" life, hiding the evidence, the associated adverse effects, the disappointment in combination therapies, the dilemma of returning to work after years of absence with the practicalities of diarrhoea, survival guilt etc., etc. The droning of the speakers presenting their bleak and depressing future was almost enough to persuade even the most enlightened listener that decline was inevitable. That was until Xevi Garcia Floris from Spain addressed the audience. He spoke of his sixteen years of living well with a positive 'hiv' test result without the use of conventional medicine; of his doubts in the 'science', and of the curative power of the mind, mother earth and the universe. In short, a breath of fresh air.

Many in the audience stood up and also declared their health and well-being after many years outside the conventional view of decline and acceptance of drug therapy. By the end of the session the atmosphere was one of determination that many people are out there wanting to be recognised. In addition, their choices and needs were not being addressed, with Kaiya Montaocean from the US demanding that alternative and traditional medicine be given parity with the pharmaceutical interests.

Talking to people at the conference the message coming across was frustration with the powerful pharmaceutical presence, the censorship encounted when challenging the science, and the lack of respect for people's choice and living conditions across the world. It was evident from the time allocated to long term survival and alternative/traditional medicine at the WAC 98 (two sessions in two hundred and thirty - less than 1%) that these issues are not taken seriously by the "hiv"/aids researchers or the organisers of the conference. Knowing that a huge resource of information is being ignored and thereby denied to many in need, the Geneva Declaration 1998 was drafted.

The final Geneva Declaration 1998 signed by as many people and organisations as possible, will be given to international, national and local health authorities and human rights bodies, to lobby for the concerns and rights of those living with a positive hiv-antibody test result to be respected.

With regard to the long term survivor study, the questionnaire, by now well reflected on, is receiving its final approval and will be available shortly. In the meantime, anyone interested in simply registering as living long term (seven years or more) with a positive test result and/or not taking pharmaceutical drugs can contact me at Continuum to be part of a network. Whilst the current study will assess those who have been living with a positive test result for seven years or more and have not taken anti-hiv pharmaceutical drugs, the network could provide scope, to those willing, for further studies embracing the variety of stratergies of the long term survivor. In addition, the accumulation of statistics will prove to be a powerful tool in asserting our existence to those who deny us as merely rare occurrences.

For further information on the long term survivors study or network contact me at Continuum.

l-r Michael Baumgartner (IFAS), Tom DiFerdinando (HEAL United), Clair Walton (Continuum), Stefan Tanner(ApS)

Did Dr. Gallo and his Colleagues ma

"The hunt for the virus"[1] has degenerated

Photo : Juan Luis Lopez

Dr. med. Heinrich Kremer

Whoever, (for reasons given below) casts doubt on the theory that "HIV causes AIDS", is often confronted with the question, if it does not, how is it that a patient who has been diagnosed as "HIV positive" by the test sooner or later goes on to develop AIDS? To which the AIDS sceptic usually replies that a "HIV-positive" laboratory result, an arbitrary defined characteristic, is part of the clinical diagnosis "AIDS". This exchange does not advance the argument very much as to whether "AIDS" and "HIV" are scientifically-speaking biological entities and if between them a biological cause-effect relationship is possible. In other words, if either the term "AIDS" or the term "HIV", (or both), do not represent conceptually independent entities but rather semantic constructs, then biologically there can be no cause-and-effect relationship between these two terms, i.e. between the postulated pathogen "HIV" and the supposed definable disease entity "AIDS".

The causative factor, the "retrovirus HTLV-111" (termed "HIV" since 1987) was introduced by Robert Gallo in 1984 (then a retrovirologist in the Tumour Biology Laboratory in the National Cancer Institute at Bethesda). On May 4th, 1984 together with collaborators from his own laboratory and other research centres and hospitals as well as workers at the pharmaceutical company Litton Bionetics, he published four basic papers in Science.[3-6] These supposedly described the identification, isolation and continuous production of a newly discovered type of retrovirus as well as the serological analysis of this "HIV" and of tests capable of detecting antibodies to "HIV" in the sera of "patients with AIDS or pre-AIDS". The simultaneous publication of these four papers by Gallo et al was shortly preceded by a patent application for "HIV antibody tests" and by Reagan's US Health Secretary's announcement, at a press conference attended by Robert Gallo himself, before the world's media that Robert Gallo and his team had "discovered the probable cause of AIDS".

The first Science paper of May 4th, 1984 begins with the fundamental assumption: "epidemiological data suggest that the acquired immunodeficiency syndrome (AIDS) is caused by an infectious agent that is horizontally transmitted by intimate contact or blood products".[3] The word 'probably' employed by the US minister only a few days before was no longer mentioned by Gallo et al.

The fourth and last Science paper of that date ends with the conclusion: "The data presented here and in the accompanying reports suggest that HTLV-111 is the primary cause of AIDS" [6]. (HTLV-111 = HIV). Gallo et al's conclusion proves that they did not postulate a direct cause-and-effect relationship between "HIV" and "AIDS", declaring "HIV" to be only the primary cause of "AIDS": "Although the disease is manifested by opportunistic infections, predominantly Pneumocystis Carinii Pneumonia, and by Kaposi's Sarcoma, the underlying disorder affects the patient's cell-mediated immunity, resulting in absolute lymphopenia and reduced subpopulation of helper T lymphocytes (OKT4+)".[3] Gallo et al by no means, therefore, postulated that "HIV" was the direct cause of "AIDS"; rather, they only claimed "HIV" is the cause of "AID" (AID = Acquired ImmunoDeficiency = reduced sub-population of T-helper lymphocytes). The syndrome "S" ("manifested by opportunistic infections (OI), mainly Pneumocystis Carinii Pneumonia (= PCP), and Kaposi's Sarcoma (= KS)") was presented by Gallo et al as if automatically the necessary consequence of "AID".

The scheme of Gallo et al is as follows:

1. "HIV" causes "AID", as a consequence of the infection and sooner or later the destruction of T-helper lymphocytes.
2. As a consequence of the decrease of cellular immunity, the control of opportunistic pathogens and cancer cells by T-helper lymphocytes breaks down as a result of which, syndrome "S" develops.

The short version of Gallo et al's plague formula is "HIV = AID = S".

nipulate the "AIDS-Test" to order?

into "clean torture with fatal results".[2]

The two part causal chain "HIV causes AIDS" actually therefore turns out to consist of three parts, and Gallo et al's claim that "HTLV-111" (= "HIV") is the primary cause of "AIDS"[6] is a fusion of two hypothetical causal assertions, and a fictitious end-effect assertion. This is because Gallo et al's published data say nothing about whether "AID" really does cause "S"; they can at most suggest a cause-and-effect relationship between "HIV" and "AID". Whether "S" can be the result of "AID" is for several reasons highly doubtful. "S" is somewhat chameleon-like due to numerous re-definitions undergone, so that the existence of "S" as a "separate disease entity",[4] in the sense of a biological disease entity, can no longer be rationally made out. Individual, defined diseases which initially made up part of the syndrome were years later expressly removed again. In the end a wild collection of 29 old infections and non-infectious diseases has been put together to constitute the syndrome "S", of which several are part of "S" even if the "HIV" status is negative or indeterminate.[7]

Dr. Robert Gallo

The latter means that "AID" cannot be the cause of "S" because "AID" is supposed to be the result of "HIV", in order that Gallo et al's plague formula "HIV = AID = S" as a causal chain is upheld, yet "AID" due to different reasons can exist independently of "HIV". Nothing is given whereby "AID" must be the only cause of "S". "AID" and "S" could, instead, have a common cause which need have no causal relationship with a hypothetical "retrovirus HIV".

The pretence of a pseudo-biological cause-and-effect relationship expressed by the plague formula "HIV = AID = S" has made a leading AIDS critic, who has presented the most comprehensive clinical analysis of the AIDS phenomenon, say, "AIDS, in short, has become a schizophrenic disease".[8]

How then, can a semantic construct of a collection of mostly contradictory diseases be the result of a supposed biological causal chain, which itself in turn is made up of hypothetical constructs as cause-and effect factors? Because the premises and conclusions[3,6] which underlie Gallo et al's plague formula can be falsified convincingly.

Gallo et al have claimed that epidemiological data prove that an infectious agent[3] is the cause of "AID", and "AID" is the cause of "S". Essentially, Gallo et al arrived at this conclusion from the findings of the CDC that "S" ("OI, mainly PCP, and KS") is significantly connected with very frequent promiscuity and predominantly receptive anal intercourse in homosexual men in the metropolitan areas in the US.[3] However, this conclusion only demonstrates the arbitrary and selective interpretation of the clinical data by the CDC and Gallo et al.

Highly promiscuous and predominantly receptive (unprotected) anal intercourse are specifically indicators simultaneously for infectious and non-infectious causal factors for "S" ("OI, mainly PCP, and KS") as well as "AID" (decline in T-helper lymphocytes in blood serum). The conclusion of a new infectious pathogen and simultaneous exclusion of all non-infectious causal factors is by no means compelling, although it determines to this day the theory that "HIV causes AIDS".

Highly promiscuous behaviour and predominantly receptive anal intercourse closely correlate with consumption of sexual stimulants, above all amyl and isobutyl nitrites. 95% of homosexual men in the US report regular use of nitrite.[9,10] Nitrite inhalation relaxes the smooth anal muscles, raises blood flow to the penis, raises pain threshold, heightens orgasm and unleashes a mild state of intoxication in the brain. Nitrite use predominantly but not exclusively became known in homosexual sex partners, and has been approaching ubiquitous in surveyed homosexual men in Western countries since the mid-70s.[11, 13]

High frequency promiscuity and predominantly receptive anal intercourse very often entails concomitant increased multi-infectivity and provocation of administrating antimicrobials, chemotherapy, antibiotics, antiparasitica, antimycotica, virusstatica and corticosteroids.[14] The first report by the CDC in June 1981 of five diseased homosexual men being treated for PCP contains some clinical information of their medical history and medication, because at the time, the all-encompassing description AIDS, masking the real symptoms, had not yet become entrenched: The five homosexual patients had not had sexual relations between themselves. All of the five patients used nitrites, and all five had been treated with TMP/SMX (TMP = trimethoprim, SMX = sulfamethoxazole).[15]

The substances TMP/SMX, also known as bactrim and septrin were introduced in the early '70s as a double chemotherapeutical folic acid inhibitor. Nitrite and SMX (a sulphonamide derivative) are strongly electrophilic oxidising agents. Both oxidise ferrous iron in haemoglobin to ferric, and thereby reduce oxygen-binding capacity of red blood cells. This causes methaemoglobulinaemia,[16,20] a progressively life-threatening deficiency in oxygen supply into the respiration chain of the mitochondria. The latter are former bacteria, which, as multifunctional organelles, supply energy to the whole cell in the form of adenosine triphosphate (ATP) produced in oxidative phosphorylation.[21] Oxygen-dependent ATP synthesis and its resulting oxygen metabolites control the cell division cycle. If too little oxygen is transported to the respiratory chain, the ratio of oxidative ATP production in the respiration chain (normally about 90%) may become inverted in favour of the non-oxidative ATP production (normally about 10%). Latest experimental findings suggest that the redox balance controls the genetic expression of proteins for the enzymes of the non-oxidative ATP production (glycolysis).[22]

Under normal physiological conditions, there is a rhythm of phase-linked change between oxidative energy production in the mitochondria and non-oxidative glycolysis during the late stage of cell division (the S-phase of mitosis). If, through lack of oxygen under conditions of methaemoglobulinaemia, the genetic expression of glycolytic enzymes is not sufficiently inhibited,[23] the cell may, despite intact mitochondria, and the presence of residual molecular oxygen, switch to permanent non-oxidative glycolysis and cationic load reversal. This results in unrestrained cell division, which may ultimately lead to transformation to a tumour cell.

Along the oxygen transport route in the bloodstream, condi-

tions in the most minute capillaries with a diameter below 100 nanometres, because of altered partial pressure of oxygen, are particularly favourable for the oxidation of the red haemoglobin, which can only bind oxygen in its reduced form. Through diffusion and association to essential fatty acids through transit routes of the basic-tissues it can deliver oxygen to individual cells. The mechanism of unrestrained activation of cell division (hyperplasia) in methaemoglobulinaemia, may, therefore, following hypoxaemic stress, above all in the smallest capillaries, affect the cells of the capillary walls - the endothelial cells. These endothelial cells are in direct contact with the hypoxaemic red blood cells. If hyperplastic conversion of endothelial cells occurs, that is called Kaposi's Sarcoma. On the other hand, especially in rapidly dividing cells such as in thymus-matured precursor cells of T-helper lymphocytes, ATP production can decline to a critical value, if oxygen turnover is reduced permanently even by a small amount. This is a control mechanism, which in turn may affect the rate of mitosis. This interaction of haemoglobin oxidation by nitrites and antimicrobial drugs with oxidative phosphorylation may, in a situation of increased simultaneous consumption of T-helper lymphocytes as a result of slowing maturation of T-helper lymphocytes, be in part a cause of "AID".

This chain of causal events is also supported by the "frightening possibility" [24] that nitrites may turn most classes of antibiotics into carcinogens.[25] Excessive antibiotic consumption (whether prescribed or not; in a study 40% of male homosexuals admitted preventive use[26]) in conjunction with nitrites is a frequently encountered pattern of behaviour among male homosexuals especially in the large urban areas in Western countries.[27]

Hypoxaemic stress can, therefore, explain the contradiction of the simultaneous appearance of malignant hyperplasias (KS, lymphomas) and opportunistic infections, mainly PCP, in homosexual men (approx. 2/3 of "AIDS cases" in Western countries, excluding undeclared homosexual "AIDS patients" estimated by orthodox "AIDS"-doctors to amount to 50% of so-called heterosexual risk groups[28]), without ever introducing a hypothetical "retroviral" cause to explain the pathophysiology.

In contrast to this clear finding, Gallo et al tried to resolve the clinical contradiction between OI and KS by constructing a new "retrovirus HIV". Gallo et al's so-called retroviruses "HTLV-1"and "HTLV-11" are said to cause rare forms of leukaemia, i.e. cancers of the white blood cells, whereas "HTLV-III" (= "HIV") is said to kill T-helper lymphocytes.

This concept has completely failed. The cytopathic effects of "HIV" demonstrated by Gallo et al have turned out to be laboratory artefacts.[29] Gallo et al's claim that "HIV" kills T-helper lymphocytes could, despite changing the theories, not be confirmed.[30-33]

The disease theory "HIV causes AIDS" is itself based on several serious clinical misconceptions:

1. The agent causing PCP is not as Gallo claimed a protozoon. The aetiology according to which after the destruction of T-helper lymphocytes by "HIV-infection", Carinii pneumocytes, the cause of PCP, could escape control by T-helper lymphocytes and multiply unrestrictedly, is objectively wrong. Such protozoa simply do not exist.[34,35] What is involved are micro-fungi that are inhaled in the air, and which, for example, in the case of increased cell decay following hypoxaemic metabolic changes (including "AIDS" without "HIV"), find fertile terrain in the alveoli of the lungs. In this way, a harmless fungus (saprophyte) becomes the dangerous cause of PCP.

2. Contrary to what Gallo et al claimed, T-helper lymphocytes do not suppress the growth of cancer cells, because cancer cells do not have antigens through which T-helper lymphocytes could identify them.[36] This means that the hypothetical destruction of T-helper lymphocytes by "HIV" and the ensuing disappearance of the suppression of KS cells cannot be the cause of KS. The predicted increase of all other types of carcinoma in "AIDS patients" resulting from the disappearance of the surveillance of cancer cells after the postulated destruction of T-helper lymphocytes by "HIV-infection" did not occur.[37]

3. Contrary to the assumption of the CDC and Gallo, the hypothetical "HIV infection" of T-helper lymphocytes, despite the postulated essential alarm function of T-helper lymphocytes for antibody production by B-plasma cells, did not result in destroying defence capacity against all microbes. Unlike patients with impaired immune functions, e.g. intensive care patients in whom mortality following typical bacterial infections is up to 80%, strikingly in the "immune deficiency syndrome AIDS", bacterial infections are rarely seen. The CDC under the category "AIDS indicator diseases" states explicitly for "bacterial infections, frequent or repeated": "not applicable as indicator of AIDS in adults/adolescents".[37]

4. A fundamental pillar of the disease theory of Gallo et al according to which "HIV causes AIDS", is severely dented by the actual epidemiological situation over the 15 years 1982-1997. For example, in 1997 the German "AIDS Centre" registered 2736 KS cases in total with 2505 KS cases in the category "homosexuals". The remaining KS cases were in "heterosexual risk groups" or "no information on risk group". On average, therefore, there were 15 KS cases a year, which were not primarily classified as "homosexual". Because homosexual intravenous drug users are classified as intravenous drug users and at least 50% of the patients classified as "heterosexual men" and "not known" were subsequently reclassified as homosexuals,[28,38] this is of the order of magnitude to be expected for KS cases classified as "non-homosexual men". Corresponding epidemiological data for the prevalence of KS are available for other Western countries [39].

Gallo et al's formulation "HIV = AID = S" is not, therefore, found to be true. "AID" (measurable decline in lymphocyte population in the blood, especially T-helper lymphocytes) though it can occur, in all members of "high-risk groups", is evidently not the cause of "S" ("OI, mainly PCP, and KS") because "S" can, first, occur without "AID",[29] and secondly, the combination of "S" (with KS) should, if the theory were correct, not exclusively be limited to homosexual patients. If, therefore, "S" is not necessarily the result of "AID", what then is the common pathogenic indicator of "AID" patients as defined by Gallo et al to be "high-risk groups"?[4]

The common factor of "AID" patients (without necessarily resulting in "S") is obviously the unusually high uptake of strongly oxidising substances (mitogens), and the huge variety of exogenous extraneous cells such as red blood cells, activated lymphocytes or sperm cells from individuals (allogenic stimulation.[29,40]) It is beyond doubt that this oxidative stress (i.e. pro-oxidative vs. anti-oxidative metabolism) of "high-risk groups", can overload the detoxification capacity and waste disposal capacity of the body which is furthermore supported by the finding that asymptomatic "HIV positives" belonging to "high-risk groups" show a strong shift from reduced to oxidised glutathione.[41]

The glutathione system is essential for the removal of oxygen free-radicals, especially in the mitochondria.[42,43] The oxidation of the central molecule of glutathione, cysteine, to cystine, in a chain reaction reduces the build up of glutathione and accelerates the destruction. It follows that the systemic decline of glutathione concentration in HIV positives can be due to both decreased synthesis and increased disposal.

"The oxidative stress to which AIDS patients are subjected would lead to cellular anomalies in many cells, including lymphocytes, resulting in opportunistic infection, immunological abnormalities and neoplasia".[44]

Does this finding of the overload of redox potentials in members of "high-risk groups" mean that "HIV", too, or rather the "anti-HIV antibodies", are the result of oxidative bombardment on the cell-mediated immunity of the "high-risk groups"?

A specific load value of the diminution of the reduction force

in the bodies of members of "high-risk groups" is hepatitis type B, in particular, in the chronically active form.[45]

Gallo et al postulated in the first paragraph of the first publications in Science of May 4th 1984 (except for the first rebutted premise: "Epidemiological data suggest that the acquired immunodeficiency syndrome (AIDS) is caused by an infectious agent" and the second (rebutted) premise: "AID" necessarily leads to "S"), a third premise: "Although patients with AIDS or pre-AIDS are often chronically infected with cytomegalovirus or hepatitis B virus, for various reasons these appear to be opportunistic or coincidental infections".[3]

This claim stands the clinical history completely on its head. "High-risk groups", in Gallo's definition , "homosexual men with multiple sex partners, intravenous drug missusers, haemophiliacs, blood transfusion recipients and close heterosexual contacts of members of these high-risk groups"[6] were long before the so-called 'sudden' arrival of "HIV" (1978), recognised to be the most severely hepatitis-B affected groups of patients.[46-50]

Hepatitis inducers (nowadays thought to be hepatitis-B, hepatitis-C) "appear to be thousands of times as infectious in clinical settings as HIV and represent a much more prevalent medical problem".[51] Hepatitis-B due to various patho-physiological reasons, especially in the chronically active form, contributes significantly to oxidative stress, by restricting waste disposal and detoxification, and overloading redox potentials. The body tries to compensate for this by increasing cortisol production. When this ultimately fails, hypercorticolism persists in a damaging way. A hypercatabolic metabolism results from this (i.e. excess cell decay vs. build up).[52] Cortisol as "synergiser" for a number of hormones and mediators effects activation of cyclic adenosine monophosphate (CAMP) and a displacement of the cAMP/cGMP ratio as principal indicator for increased cell turnover.[53] The net effect is a dampening of cellular immunity and activation of humoral immunity. Resulting from the increased cell turnover, the decreased disposal of cell debris (because of the dampened cellular immunity, "AID") and the strengthened autoimmune activity, a significantly increased formation of autoantibodies occurs which above all specifically bind to cytoskeletal proteins and extra-cellular proteins of the cell matrix as antigens.[54,33]

In conclusion, it is fair to assume that Gallo et al took these attributes [25] of "high-risk groups" into consideration, namely,

1. the excessive oxidative (mitogenic) stress
2. allogenic stimulation by foreign cell components
3. the sharply increased antigen auto-antibody load together with suppression of T-cell dependent immunity brought about by synergistic effects of persistent corticolism with resulting change in cAMP/cGMP ratio.

In their original paper ("Detection, isolation and continuous production.."),[3] Gallo et al were able only to cite indirect phenomena, such as reverse transcription, ultra-thin layer electron micrographs, banding of protein mixtures at given densities, which according to the established rules of virology are not acceptable as evidence for the existence of a virus and even less a "retrovirus", because these indirect phenomena can also be obtained in the absence of any viral entity under certain cell culture conditions.[55-60,33]

Then the question becomes increasingly pressing: how did Gallo et al manage to produce a protein mixture in cell cultures and in the test tube, which, as the substrate for the "AIDS-test" when in contact with serum of people in "high-risk groups", resulted in a given rate of antigen antibody-reaction for single proteins?[6]

Gallo's papers, though written in highly technical language, do not reveal this secret of test-constructing. Only in 1987 when the disease theory "HIV causes AIDS" led to the introduction of a highly toxic DNA chain terminator (azidothymidine = AZT = Retrovir), was some light shed on this matter when two of Gallo's former collaborators and co-authors of the original publications in Science of May 4th 1984[3-6] revealed the essential details. Mangalasseril Samgadharan and Phillip Markham (collaborators at Litton Bionetics, Kensington MD, USA) published the biochemical methods used by Gallo et al whereby they manipulated the protein mixture which due to self-defined conventions is said to be "HIV antigens".[59]

To start with, Gallo et al biochemically prepared cell components obtained from members of "high-risk groups" according to the self-defined rules of "retrovirus production". This procedure, only "from time to time" and only transiently,[61] led to the production of unspecific phenomena as surrogates for the existence of a new "retrovirus". Then they mixed lymphocytes from patients in "high-risk groups" with exceptionally rapidly dividing leukaemia cells.[3,4] This cell mixture was then subjected to the effects of certain biochemical substances. They go on to say that "in vitro stimulation was achieved by mitogens or added cells (allogenic antigens)...Certain manipulation of culture conditions improved the result, for example, co-cultivation of patients' cells with peripheral white blood cells, which were stimulated by mitogens, from non-infected donors."

The "virus isolation" of cultured cells was also significantly facilitated by adding hydrocortisone to the culture medium".[61]

Knowing the specific antigen auto-antibody status of "high-risk groups" patients, it is possible, therefore, to trigger, on demand, an antigen mixture appropriate to the auto-antibody repertoire in serum from high-risk patients, in cell cultures of human lymphocytes, co-cultured with leukaemic cells when subjected to specific biochemical manipulation.

The apparent proof that in the antigen mixture one is dealing with "retroviral" proteins - brought about by the demonstration of a naturally occurring repair mechanism, reverse transcriptases, produced particularly copiously in cancer cell cultures to repair DNA and renew chromosome ends, hence cocultivation with leukaemic cells in Gallo et al cell culture[3,4], as well as proof of exocytotic virus-like particles (frequently occurring transport particles to expel intra-cellular components from mitogenically stimulated cells) as proof of "isolation and continuous production" of supposed retroviruses, is misinterpretation.[33]

That Gallo et al's sensational discovery of a "new retrovirus" was in fact a laboratory artefact is made explicit by Gallo et al's expressly stating that "HTLV-1" (isolated from T-cells in 10% of "AIDS patients") and "HTLV-11" from the "family of retroviruses" in "AIDS patients", were also discovered and demonstrated.[3,4] Later on, there was no further mention of "HTLV-1" and "HTLV-11" being "isolated from T-cells of AIDS patients". Nor were there noticeable occurrences of leukaemia in "AIDS patients". The "isolation" of "HTLV-1" and "HTLV-11" was a laboratory artefact due to the rules of "retrovirus production" of Gallo et al. By analogy this finding accounts for "HTLV-111" (= "HIV") as well.

In effect, therefore, Gallo et al were adapting conditions which they knew to be conducive to antigen formation in the body of "high-risk patients", to laboratory conditions. The difference is that in cell culture as opposed to the body of "high-risk patients", no antibodies are present because the B-plasma cells are absent. Then it is possible, at a certain arbitrarily fixed auto-antibody level, to demonstrate an antigen-antibody reaction when the antigen mixture of the cell culture is brought in contact with sera of "high-risk patients". This is exactly the principle employed in "HIV-antibody tests". In mirror image fashion, the artificially produced antigens bind to the auto-antibodies, whose presence was to be expected because of the well-known patho-physiological overload of "high-risk patients".

In describing the recipes of Gallo et al, who covered their laboratory-tricks behind the dust screen of patents, the irrational reduction of "AID" to the effect of a seemingly new infectious cause[3] and the ignoring of the clinical effect of chronic hepatitis [3]

becomes apparent as a claim used to create pressure to introduce the patented "antibody test system" of a "new retrovirus" found in the National Institute of Cancer.

The laboratory finding of "HIV positive" which may be diagnosed in those belonging to "high-risk groups" depending on the quantity and personal reaction pattern of antibodies, may also be made in rare cases in those not belonging to "high-risk groups" for a number of extremely diverse reasons.

Gallo et al's expectations regarding the dynamics of the spread of "HIV" have, contrary to the horrendous predictions, not been fulfilled in the real biological world. In Germany, for example, according to official figures for the 15 years 1982-97, out of a population of 82 million, 60.000 have been notified as HIV positive, i.e. more than 99.9% of the population are personally not affected by "HIV" and "AIDS". The official government forecasts, until now uncontradicted, spoke of there being more "AIDS cases" by 1996 than there were inhabitants. At least every other person was supposed to have died by 1996, unless a vaccine or drug against the "absolutely" fatal plague had become available.[60] In the former East Germany, there have been a grand total of 252 cases in a population of 16 million, and that despite massive migrations (since the fall of the wall) up to the end of 1996. Over the past decade in the whole of Germany there has been a very constant 2-3,000 people diagnosed annually as "HIV positive". 95% of these have been classified as belonging to the "high-risk groups" of "homosexual men" and "IV-drug users" (homosexual IV-drug users are counted as ordinary IV-drug users). 5% of "HIV positives" are considered to be false positives, but cannot be identified as such by the test.

At most 2000 "HIV positives" develop AIDS annually, and 1300 patients die annually of "AIDS" (actual cause of death is not revealed). Of the supposed 60,000 HIV positives (figures are very unreliable because of unknown multiple reporting), 50,000 are still officially alive today. 54% of all "AIDS patients" gave their addresses to be one of the six largest cities, in which 10% of the general population also live. Opposed to that in 90% of the remaining inhabitants only 44% of the notified "AIDS cases" occur.

By ay of example, the disease rate and death rate of "HIV-positive" haemopholiacs registered in these six cities is twice as high as in "HIV-positive" haemophiliacs living outside of those cities. In these cities (Berlin, Hamburg, Köln, Düsseldorf, Frankfurt and München) the university clinical "AIDS-treatment centres" are located, which report the highest "AIDS"-disease and death-rates to the national AIDS-centre. As the positions of collaborators in the "AIDS-ambulances" and "AIDS-stations" of these university clinics mostly are paid for by the pharmaceutical companies, the connection between Medicine and the markets ("AIDS-test", "AIDS-medications") becomes all too obvious. Very intriguing is the comparison between the "capitalist" West-Berlin and the former "socialist" East-Berlin.

In the period of 15 years from 1.1.1982 to the 1.1.1997 in West-Berlin (2.2 million inhabitants, which make less then 3% of Germany's population), 3083 "AIDS-cases" have been registered which are 20% of all German "AIDS-cases". In the same period (including 7 years of unification with West-Berlin after the fall of the Berlin Wall 1989) in East-Berlin (1.3 million inhabitants = 1.6% of the German population) only 152 "AIDS-cases" are registered, which make 1% of all German "AIDS-cases". This very intriguing, chance, historical and model-like data[38], proves wrong the premise of Gallo et al. that "epidemiologic data suggest that the acquired immunedeficiency syndrome (AIDS) is caused by an infectious agent". The disease rate when brought in connection with the whole population is obviously a very rare medical event, not dependent on a ubiquitous transmittable mass-virus, but determined by life-style in a largely commercialised subculture and/or by uncritical medical intervention in Western societies of super-abundance.

Or patho-physiologically speaking: "AIDS-patients" fall ill due to a lack of power of reduction (caused by superoxidation and/or hypoxaemia) in the midst of a redundant medical over-supply.

Arguing against this, Gallo et al. refer to Africa, which is uncritically presented by mass-media as the "dying AIDS-continent". In this context too the world of facts is seemingly overwhelmed by a virtual world of imaginary information.

In Africa south of the Sahara, the annual increase in population was about 100 million inhabitants over the last decade, even though the latest report on the world population states that according to a lot of population experts "in the third world the plague supported birth-planning more than any earlier programs".[63] Due to lack of medical infrastructure and low budgets in the health care system (in most states south of Sahara the average annual spending per head of the population for providing health care is US$6: a single complete "AIDS-test" - 2 x ELISA-test, 1 x Western blot, costs much more than 6 US$), the "AIDS-test" is not widely used. Instead the World Health Organisation (WHO) transfers certain amounts of money to the health authorities of the various countries for "AIDS-education" in order to get estimated incidental rates of "HIV-infection" and "AIDS-cases" which are not verified by the WHO.

WHO-experts use these estimates in calculations based on the supposed "dynamic of distribution" of the "HIV-plague" and present the resulting numbers to the world media as "HIV-infection" and "AIDS-disease" in Africa. Usually, in the subsequent media reports the speculative "HIV-infections" and "AIDS-diseases" are lump-summed and wrongly reported as "AIDS-cases" in Africa. This is the way the manipulated numbers of more than 20 million "AIDS-cases" in Africa (app. 90% of the world-wide reported "AIDS-cases") came into existence without any substantial base of knowledge.[64]

Thus the fictitious looming scene of a "people murdering AIDS-plague" in the "global media village" enhances sales of "AIDS-tests" and "Anti-HIV-medications" (euphemicly termed "cocktail therapy") in western countries, using "poor Africa" to increase sales in the "rich West".

The data on the clinical, immunological, virological and epidemiological progress since 1984 show beyond doubt that the disease-theory "HIV causes AIDS" has no concurrence with the biological reality. As a marketing strategy Gallo's manipulated "AIDS-test" has been extremely successful. But this at the cost of the health and life of uncounted children, women and men who, from a medical ethics point of view became victims of "clean torture leading to death" induced by the arbitrary medical death sentence of a "HIV-positive" result. Medical ethical behaviour "according to best wisdom and conscience" must require, within one's own responsibility, the effort to inform oneself on the basis of existing data about possible manipulations in diagnostic tests and therapy, and to use appropriate alternative therapies instead of inducing fear blind with rage.[33]

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The Problematic for Empowerment:

the surrogacy of antibody-tests and the erosion of the medical 'gold standard'.

Kevin Corbett

Photo : courtesy of the author

"You take the blood from an individual, you hope whatever causes the disease is there. You can take an electron microscope of the blood. When you do that you have to remember you have to sit for about ten days, because the amount of [virus-like] particles for the amount of cells budding and forming at any one time are low. So you do an indirect test for the virus. You make antibodies to it, you know it's like...you know that Strontium 90 exists, and really you never saw it, so you have indirect tests. They're obvious, they're definitive, there's no potential for artefact and of course you look and you see it, and we have drawers of it, stacks of it this high, of electron micrographs, we have pictures of the virus and once you've a picture..."
Robert Gallo, ex-co-discoverer 'HIV' (Interview with Huw Christie, World AIDS Congress 1998)

"Science is a contestable text and a power field; the content is the form. Period. The form in science is the artefactual social rhetoric of crafting the world into effective objects. This is a practice of world changing persuasions that take the shape of amazing new objects - like microbes, quarks, and genes. But whether or not they have the structure and properties of rhetorical objects, late twentieth century scientific entities - infective vectors (microbes), elementary particles (quarks), and biomolecular codes (genes) - are not Romantic or modernist objects with internal laws of coherence. They are momentary traces focused by force fields, or they are information vectors in a barely embodied and highly mutable semiosis ordered by acts of recognition and misrecognition."
Donna J. Haraway[1]

'Framing' AIDS

At the 1998 Geneva AIDS Congress there was an intermingling of investments between the science 'streams', the corporate-sponsored seminars and the near-infinite array of 'bio-tech' marketing stands. This panoply of bio-medical, commercial and technological investments represents a material effect of the global AIDS economy. Its paradigm is the monogenetic view of aetiology not the adaptive creativity of the immune system, Walter Cannon's 'wise body'.[2] This hegemonic approach to causation assumes the homogeneity of biomedical knowledge which social analysts like Atkinson view as an effect of an overly 'cultural' approach to medicine,[3] as "biomedicine is far from homogeneous and the expression of its internal diversity may be accounted for in sociological terms".[3] Thus, Waldby charges biomedicine with producing a 'biomedical imagination', an embodiment of the 'normal' and 'pathological' that advances clinical intervention and social normativity;[4] a near-consummate mode of bodily meaning utilizing medical screening and imaging technologies, many of which were displayed on the 'bio-tech' stands at Geneva. "So deeply embedded is the role of technology in our culture that the term 'innovation' is often used as if it were synonymous with technological innovation".[5] Thus, at Geneva the 'true' measurement of patient responses to protease drugs hailed surrogate over clinical markers. Pozniak[6] recently reported that clinical efficacy cannot be extrapolated from surrogacy data, as most 'surrogates' do not correlate with the true clinical outcome and cannot capture the total effect of treatment, because all drugs operate through several mechanisms all affecting data interpretation.[7] In this manner, biomedical technology privileges the Laboratory over the Clinic, so assuming an imperative and deceptively superior nature.

This hegemonic approach, so evident at Geneva, determines a retroviral "frame of intelligibility"[8] for AIDS, the near-consummate mode of bodily meaning for those testing antibody-positive. That such in itself is highly unstable went unchallenged in the social science stream at Geneva, where no paper or poster demonstrated any awareness of the problematic in the so-called 'basic science' of AIDS and its industry of surrogate medical tests and normative bodily surveillance. Lippman notes,[9] in relation to women's health, how testing culture creates a 'biomedical lifestyle'. The HIV antibody-test culture creates a biomedical lifetsyle by shaping issues in new ways ('breast feeding' read 'transmission'), it translates everyday life ('wellness' read 'asymptomatic'), it transforms definitions of natural ('anal sex' read 'highest risk') and it determines how people ought to live ('compliance', 'testing').

The over-arching discourse of the Congress was retroviral causation, the hegemonic frame of intelligibility. Onerous questions about the isolation and pathology of retroviruses were asked of AIDS scientists and physicians during the official press briefings. These questions came, not from AIDS 'experts', but from activists, many themselves antibody test-positive. This reversal of the power relationship underlying the antibody-test, strategically targeted the screening technology by questioning its proponents and their knowledge of the epistemology of the ELISA and Western blot. First-hand knowledge and experience of the problematic of such testing informed both challenge, confrontation and dialogue between activism

and science over the so-called 'consensus' on retroviral causation. It was an exercise of the power of 'reverse discourse' by those labelled antibody-positive. The target was the epistemology of the AIDS screening diagnostics.

Deja vu? Seemingly so. Ten years ago Paula Treichler described how activists similarly challenged the same 'consensus' at the Montreal Conference. Both occasions seemed to evidence a refusal to grant authority to scientific assertions, thus exposing the problematic in the biomedical accounts of causation. Such 'biomedical activism' emphasizes how "scientific accounts are constructed versions of reality rather than simply transparent discoveries"[10] and highlights the problematic of the biomedical signification process and the ethical role of the media. "Deja vu?" Seemingly not. Geneva was different. Although this activism was authored by activists, its biomedical contingent was authorized by the Conference Executive.

The latter had approved the inclusion of a Satellite session in which one group of scientists from Perth, Western Australia, questioned the structural isolation of 'HIV', the epistemology of antibody-test kits and thus, the construction of a biomedical HIV lifestyle. Ten years post-Montreal, open challenge to an orthodoxy was mounted, both in the press conferences and in the officially authorized Satellite session attended by Dr Bernard Hirschel, the Conference Organiser and leading orthodox Swiss AIDS physician. It signifies how the power of AIDS activism (cf. International Forum for Accessible Science) can articulate with the heterogeneity of biomedical knowledge, and garnering extra support in the process (cf. Global Network of People Living with AIDS, the Community of Women Living With HIV/AIDS, Congress Executive). In Geneva, this power and knowledge was productive; it facilitated alternatives to the biomedical lifestyle for antibody-test positive people at the Congress; by juxtaposing (via press briefings and the Satellite) and making highly visible (via literature stalls/workshops) the 'barely embodied and highly mutable semiosis' of retroviral isolation, the very basis of HIV antibody-tests. Also, it achieved a positioning of this debate from within the Congress organisation, revealing from within the body of the Congress the transparency and management of 'consensus' on 'HIV'. If they were not already, journalists beginning their careers post-Montreal became aware of the existence of scientific debates over the use of antibody-tests for diagnosis. In this way, the tenor of debate goes beyond so-called 'dissidence'/'orthodoxy', signifying the need for a more inclusive framework and impartial language.

The fault-lines of consensus

In 'Making Science', Stephen Cole describes how scientific disciplines differ in their achievement of consensus based on the 'cognitive or intellectual substance' of the claims made, the social characteristics of the authors and the operation of social processes like intellectual authority.[11] Cole proposes two types or components of knowledge: *core* and *frontier* knowledge. The *core* represent the theories, analytic techniques, and 'facts' constituting the 'given' at any point in time, the textbook 'consensus-knowledge' upon which new work proceeds (cf. Fleck's conception of 'thought-style').[12] For a new scientific contribution to enter the core, it must be judged as 'true' and 'important'. The *research frontier* is the rest of the work being produced by all researchers in any discipline, the site of new knowledge production. Thus, core and frontier knowledge differ by the presence or absence of consensus; a specific contribution to knowledge only enters the core when a consensus on it is established. The research frontier is linked to the core through the evaluation process. The social character of knowledge in these two components differs radically: core knowledge is characterized by virtually universal consensus; it represents a 'given', a starting point for research whilst anomalous empirical evidence not compatible with this core is overlooked or rejected. Scientists see core knowledge as 'true', or 'given', whilst in frontier knowledge, scientists looking at the same empirical evidence can reach different conclusions, not accepted as 'true' by the core, but as the claims to truth of specific scientists.

This framework adds to a sociological understanding of the retroviral 'consensus' in AIDS causation. Firstly, it provides a neutral language and a descriptive context for thinking about alternative biomedical claims on causation using the common feature of such claims: their differing critique of the retroviral 'consensus'. Thus, the divergent perspectives maybe understood in relation to one another

Photo courtesy of the author

The global AIDS economy: a near infinite array of biomedical, commercial and technological interests converge at the Geneva World AIDS Congress 1998

and this 'consensus'. Secondly, the difference between core and frontier knowledge describes the AIDS research field, that is, this 'consensus' is the hegemonic core from which almost all mainstream work on AIDS proceeds and from which the paradoxes and anomalies in the retroviral hypothesis are extinguished. Thus, alternative or frontier claims remain under-utilized, overlooked or rejected in research, treatment and care.[13,14]

Thirdly, Cole's perspective is useful for understanding the mutually opposing cognitive content of core and frontier knowledge. Cole states: "If we only look at core knowledge and at what scientists say about core knowledge, we will conclude that science is adequately described".[15] The basis of core knowledge is never questioned. For example, HIV co-discoverer, Gallo, states: "the evidence for HIV (causing AIDS) is overwhelming. There is a primary etiologic agent, the sine qua non. Take it away and you don't have an epidemic".[16] Furthermore, Cole states: "if we look at frontier knowledge we will find little confirmation for much of the traditional view".[17] Thus, 'frontier' knowledge is characterized by scientists looking at the same empirical evidence only to reach differing conclusions. For example, biophysicists/HIV-critics, Papadopulos-Eleopulos et al. state: "the available data do not support the presently accepted hypothesis that HIV is either necessary or sufficient for the pathogenesis of AIDS, and thus it would seem logical to consider alternative theories".[18]

Lastly, the sociology of science seeks to understand how the 'cognitive' content of the retroviral hypothesis was so quickly accepted by the scientific community[19]; given the controversy, the existing evidence[20] and the problematic epistemology and methodology of retrovirology (the existence of a human disease-causing retrovirus, 'HL23V', was heralded in the 1970s, later found to be non-existent).[21] Whilst the phenomena of parallel scientific discoveries seem to support the role of the cognitive content in the achievement of such 'consensus', a sociological perspective on 'consensus' views the practice of science as less than an objective enterprise, in "which theory holds at least equal role to evidence and in which consensus is fragile and changing".[22] Although the social characteristics of the authors and the operation of social processes, such as 'intellectual authority', do exert influence, the "social variables (alone) cannot be used to explain why one model of DNA rather than another was accepted into the core".[23] Likewise, why was one model of AIDS causation accepted rather than another? Social processes like 'intellectual authority' do not determine the actual content of discoveries accepted into the core, yet they do have the 'power' to determine which discoveries among a group of contenders for the attention of the scientific community will be successful. Such power is exercised through the other mechanisms which underpin the constitution of core knowledge, like how science's evaluation system is reliant upon prominent 'gatekeepers', the 'eminent scientists' who exercise their "legitimated intellectual authority"[24] by affecting judgements on the quality of other scientific contributions. Thus, Coles' framework is useful for mapping out the terrain of the political and scientific fault-lines in AIDS causation.

'Framing' biomedical knowledge

The heterogeneity of biomedical knowledge in AIDS, like the core and frontier knowledge of causation, is a definitive feature in the history of AIDS accompanying every stage of its research and treatment. Such heterogeneity pervades the knowledge and fundamental technology of AIDS, producing shifting frames of intelligibility. For example, Blattner's 1989[25] review of retroviruses incorporates uncertainties, like those of the AIDS screening technology, HIV antibody-test kits, which rely on the specificty and sensitivity of human retroviral assays:

"One difficulty in assessing the specificity and the sensitivity of human retrovirus assays is the absence of a final 'gold standard'. In the absence of final 'gold standards' for HIV-1, the true sensitivity and specificity for detection of viral antibodies remains imprecise. Despite these limitations the predictive value of these assays remains quite good" (Blattner 1989 p.551)

Blattner implies that human retroviral assays, thus HIV antibody-tests, cannot be ultimately verified as their true sensitivity ('how often the test is positive when you already know what you are testing for is present')[26] and true specificity ('how often does the test read positive when what you are testing for is known to be absent')[26] cannot be reckoned by "an alternative method of establishing the presence of the condition for which the test is to be employed", its ultimate "gold standard".[28] Yet the predictive value of such assays Blattner sees as 'quite good'. For the antibody-test kits this gold standard ethically and scientifically should entail isolation of HIV itself. Furthermore, Blattner states: "The isolation of human retroviruses involves tissue culture-techniques that may require weeks to months for successful isolation. In a typical experiment, reverse transcriptase is monitored 5-7 days in culture, but repeated serial passage and coculture may be required to amplify the signal for virus detection. In the best of circumstances, virus isolation may require a month or more." (Blattner 1989 p.550)

Blattner implies that the virus can be isolated but serial passage and coculture maybe required to amplify the signal, that is, 'isolating' the virus appears somewhat problematic: it takes a long time and requires time-intensive procedures. On the one hand, there is no independent means of verifying the retroviral assays which underpin the commercially available antibody-test kits as there appears no gold standard for evaluating the true/false positives; yet such testing technology as a 'screening technology' is said to have 'quite good' predictive value, even in the absence of knowledge about its true sensitivity and specificity. On the other hand, the only gold standard for such tests would be the virus itself; yet in the best of circumstances it takes weeks to months to 'isolate' the virus using complex procedures. Such a gold standard does not even appear to be a remote possibility, given the nature of the problematic in retroviral isolation. Thus, uncertainty lies at the heart of the test's use as a screening technology solely on the questionable basis of its so-called predictive value;[28] such is productive of differing frames of intelligibility for ELISA (Enzyme-Linked Immunosorbent Assay)/Western blot technology and the nature of AIDS itself. In AIDS, such discursive frames cut across many dialectical debates within the history and development of modern immunology ('specificity of antibody response') and virology ('structural' or 'functional' isolation). Through such discursive shifts not only is the non-uniformity of biomedical knowledge revealed, its heterogeneity, but also the epistemology of modern scientific thought.

Foucault's Modern 'episteme'

The 'episteme' was defined by Michel Foucault as: "something like a world-view..which imposes on each one (scientific discipline) the same norms and postulates..a certain structure of thought that the men of a particular period cannot escape".[29] In The Order of Things, Foucault[30] wrote about the conditions of possibility which formed the basis of the human sciences, giving rise to modern biology. He claimed shifts occurred in the Western 'epistemes' of thought, marked by discontinuities between the Renaissance, Classical and modern ages. The first shift was half-way through the seventeenth century, marking the end of the Renaissance age and the start of the Classical age. This Classical episteme gave rise to 'natural history' where representations were ordered in terms of identity and

difference. Thus, taxonomies or tabulations of possible observed difference between living beings made possible the naming of the identities so represented. The second shift to the 'Modern' episteme occurred towards the end of the eighteenth century,[31] giving rise to the appearance of knowledge which existed outside of representation. Foucault claimed this episteme embodied a radical transition from described structure to classifying character based on the internal principle of 'organic structure'. The latter became the new foundation for ordering nature, defining its 'space' and delimiting its 'forms': "..a method of characterization; it subordinates characters to one another; it links them to functions; it arranges them in accordance with an architecture that is internal as well as external, and no less invisible than visible; it defines for certain beings the internal law that enables a particular one of their structures to take on the value of a character. Organic structure intervenes between the articulating structures and the designating characters - creating between them a profound, interior, and essential space".[32]

'Things' previously named or existing through taxonomies of their described structure became classifiable by their character based upon the principle of organic structure, in a relation of the visible to the invisible. 'Character' became a visible sign directing attention to a buried depth, a sign of the 'coherent totality' of the structures. Foucault claimed the organizing principles of knowledge became those of 'Analogy' and 'Succession'. Thus, the link between one organic structure and another was no longer the Classical identity of one or several elements, but of the non-visible relations between the elements and their functions; if structures happened to be adjacent due to the density of analogies, it did not imply proximity within an area of classification, more that such were both formed at the same time, "one immediately after the other, in the emergence of the successions".[33] 'Organs' became defined by function as the visible diversity of structure emerged from an array of functional units, forming 'resemblances' where no 'identical' elements existed. For example, 'gills' and 'lungs' although structurally diverse could be linked in a relation of resemblance to the abstract 'organ', not itself present, that of respiration in general. Seeking such extensive grouping entailed deeper penetration into organisms' "inner darkness, towards the less visible, into that dimension that eludes perception; the more one wishes to isolate the individuality of the organism, the further must one go towards its surface, and allow the perceptible forms to shine in all their visibility; for multiplicity is apparent and unity is hidden".[34]

In this manner, the non-perceptible and functional aspects of life provided the basis for the possibility of exterior classification arising from the depths of life and its hidden elements. General taxonomia began to disappear whilst, 'Nature', as a Classical homogenous space of orderable identities and differences, became a dissociated space, a series of oppositions, like secondary/primary organs, organs/ functions, and identities/differences. The latter were no longer positioned on a homogenous surface. Whilst differences proliferated on the surface, deep down they faded, merged, and mingled. Life became that in which "all the possible distinctions between living beings have their basis"[35] shifting the notion of 'life' from the taxonomic to the 'synthetic' through a "recrudescence of vitalist themes".[36] Continuity arose between the organism and that which enables its survival, and the living came to occupy a double space, an interior one of anatomical coherences and physiological compatibilities, and an exterior one of the elements in which life resides and of which it forms its own bodies. Foucault claimed that Classical ontology dealt in the same way with all material beings; in the Modern age 'biological being' became regional and autonomous, within the discontinuous space of 'nature'. 'Life' became the root of all existence, the nucleus of being and non-being,"(life is) on the other side of all the things that are, even beyond those that can be, supporting them to make them visible, and ceaselessly destroying them with the violence of death, life becomes a fundamental force, and one that is opposed to being in the way that movement is to immobility, as time to space, as the secret wish to visible expression".[37]

Foucault viewed the ontology of the Modern episteme as 'untamed', a precarious form of being, one actively being destroyed from within; an ontology of 'annihilation' where: "beings are no more than transitory figures, and the being that they maintain, during the brief period of their existence, is no more than their presumption, their will to survive. And so, for knowledge, the being of things is an illusion, a veil that must be torn aside in order to reveal the mute and invisible violence that is devouring them in darkness".[38] Thus, Foucault described a developing system of thought in which individuality is precarious, fated to be destroyed, where: "..the objectivity of things is mere appearance, a chimera of the perceptions, an illusion that must be dissipated and returned to the pure will, without phenomenon, that brought those things into being and maintained them there for an instant".

...the organizing principles of knowledge became those of 'Analogy' and 'Succession'.

Retroviruses, an effect of the Modern episteme

Modern biomedicine emerged from the human sciences, and it was the conditions of possibility which gave rise to these sciences that Foucault analyzed. He conceived the episteme as impacting scientific disciplines by its imposition of similar norms and postulates. Thus, Foucault's claims about the Modern 'episteme' are useful for developing a sociological understanding of the heterogeneous nature and ontology of retrovirology as offered by modern biology. In retrovirology, 'Analogy' and 'Succession' appear as pivotal themes in its ordering. Analogy, as Peyton Rous stated in 1911, linked his induction of malignancy in chickens to the concept of infectious disease caused by microscopic organisms, rather than to "an agency of another sort..a chemical stimulant, elaborated by the neoplastic cells" which could cause "the tumour in another host and bring about in consequence a further production of the same stimulant".[40] This "other agency" was the successive recreation of the circumstances enabling the tumour, as opposed to a transmissible infectious agency.

Foucault's Birth of the Clinic outlined the emergence of pathological anatomy and the concept of organic illness. He posits a medical or clinical gaze, le regard, at once perception and an active mode of seeing through which social objects like disease categories come into being. Foucault claimed this gaze was reorganized in the Modern episteme to inspect pathological reactions, not essential diseases, to seek the organic root of disease before visible lesions arose. Significant was "not what can be seen of these alterations, but what is determined by the place in which they develop".[41] The axiom was localization over visibility; disease was considered to exist in space prior to existing for sight, a spatialization of medical experience defining a physiology of morbid phenomena. In this schema, inflammation was a mechanism of increasing irritative action caused "by bodies or objects, living or not living".[42] Causality lay within the irritability of the tissues and the irritating power of the agent within the local, causal space of

disease. Foucault claimed the pathological became defined by the movement of tissues in reaction to irritating causes, internal or external agents. The ontology of this new medical order espoused organic sickness, 'disease', premised on the relationship of attack from an agent or an environment. Foucault cites Broussais', who was by 1821 already emphasizing the role of external agency over internal environment in disease causation. In addition, by 1876 the Succession of the pathological, the growth of bacteria in successive cultures, ensured their identification and nomination. Thus, Koch demonstrated the life cycle of the anthrax bacilli, graphically showing how the finite morphology of the bacilli and its life cycle produced a finite disease belonging to a finite species. It was Koch's technology, his "enormous improvements in microscopial technique, his new dry stained preparations and his microphotography",[43] which enabled others to become convinced of the specificity of bacteria and the notion that disease and bacteria defined each another. These developments ensured the hegemony of 'germ theory' over other explanatory models of causation of pathological disease, thus facilitating later analogical attribution of Rous' discovery to transmissible pathological infectious agency, to become known as 'retrovirus'.

In addition, Foucault claimed the Modern episteme sought the"buried depth"within beings whereby their identity or function becomes known. Thus, the overarching representation of reverse transcriptase (RT), the enzyme catalyzing DNA provirus from viral RNA, was that of the definitive functional attribute for particular viral structures. In the 1970s this specific feature of retroviral structure, RT, took on the value of a character that subordinates other retroviral characters by virtue of its perceived functional character: the facilitation of replication. Thus, certain retroviruses became arranged in accordance with an architecture that is "internal as well as external, and no less invisible than visible". RT defined for certain RNA viruses the quintessential aspect in their structure which was to assume the value of a character. So RT became the means for organizing and classifying specific RNA viruses, based upon the principle of organic structure. The character of RT became the 'visible' sign directing attention to the buried depth of viral replication; a sign of the 'coherent totality' of the structure of retroviruses and that which linked one organic structure (viral RNA) to another (human DNA) by the 'non-visible' (to the eye) relations between these elements and their functions.

Foucault described how the Modern episteme shifted notions of 'life', such that continuity emerged between the organic being and that which enables its survival. Thus, the relation of retrovirus and host meant retroviruses came to occupy a double space of being, an interior one of anatomical coherences and physiological compatibilities and an exterior one of the elements in which being resides (viral RNA) and of which it forms its own bodies (host DNA, RT). In Foucault's Modern episteme the non-perceptible and functional aspects of 'life' provided the basis for the possibility of exterior classification arising from the depths of life and its hidden elements. Likewise, RT had become "the sine qua non of this class of virus" separating "this group of viruses from all other RNA viruses",[44] a relation of the visible (RT detection) to the invisible (RT non-detection). Virology posits RT as the facilitator in retroviral vitalism, the retroviral 'life force' that incorporates viral RNA into the host, thereby assuming the very root of retroviral existence, its own nucleus of being and non-being which both supports the visible production of viral RNA whilst ceaselessly destroying the host ('non-being'). RT is the fundamental 'life force' "opposed to being in the way that movement is to immobility, as time to space, as the secret wish to visible expression".[45] Thus, the percept 'retrovirus' changed from organic 'being' to 'living' organism. For example, Bishop's 1978 review of retroviruses speaks of 'retroviral architecture' and 'replicative cycle', descriptors of the organic being,[46] whilst Blattner's later 1989 review begins its Historical Background with the discovery of RT and ascribes to retroviruses the biological characteristics of a schematic 'life cycle', in which RT constitutes the viral animale, it facilitates genomic integration with host to ensure retroviral 'life'.[47] Thus, Blattner's foregrounding of RT and elision of the Rous discovery to his Introduction actively constructs RT as the pathological animale, the 'life force' of the retrovirus. Foucault alludes to the instability of the Modern episteme, its 'untamed' ontology that preordains a precarious form of being. Thus, the ontology of certain retroviruses, like 'HIV', in many ways can be conceived of as a precarious ontology of characteristics, not structural entities.

Firstly, 'HIV' may be 'no more than a transitory figure' given that to 'isolate' (c.f. Foucault's 'individuality of the organism') requires "techniques that may require weeks to months for successful isolation".[48] Viral isolation becomes a test of the functional classifying characters of the retrovirus, the "presence of reverse transcriptase positivity, morphologically typical virus particles on electron microscopy (EM) and the presence of specific viral antigens detected by polyclonal and monoclonal antibodies virtually assures unequivocal detection of virus";[49] RT, EM photographs, specific viral antigens thus become the surrogates of the structural or substantive entity, the virus itself. In this sense, modern virology elides the structural or substantive entity of 'retrovirus' in favor of its 'momentary trace' in antibodies, photographs of morphologically 'typical virus particles' and 'viral' antigens; thus, virology is characteristic of the Modern episteme where: "the more one wishes to isolate the individuality of the organism, the further must one go towards its surface, and allow the perceptible forms to shine in all their visibility; for multiplicity is apparent and unity is hidden".[34] In this manner, specific viruses becomes "no more than transitory figures..the being that they maintain, during their brief period of existence".[50]

Secondly, that modern-day surrogacy of antibody-test kits is problematic is implied in accounts of the absence of a final "gold standard" where doubts exist over the epistemology of such technology. For example, the British AIDS-virologist Jeffries, noted in 1986: "What is disconcerting..there is no suitable confirmatory test which will allow one to pronounce a 'positive' test by ELISA a true-or-false positive".[51] And, the British AIDS-physician Gazzard states: "Unfortunately, there is no single test that can confirm a positive antibody test as a true positive..thus the presence of antibody should be assumed to indicate virus infection".[52]

Modern virology posits retroviruses as infectious agents by establishing their existence using surrogate tests. Horwitz et al. notes: "it is surrogate tests that create the main difficulty in evaluating technological procedures" [53] as such tests do not isolate the causal entity, but something thought to symbolize its agency. Surrogate tests provide momentary traces of this agency, by characterization rather than realising its substantive structure. In AIDS medicine, surrogacy is focused by the technological force field of antibody-test kits, 'viral load' and T-cell counts. Following Foucault's analysis, the certainty of late twentieth century scientific entities, like retrovirsues, can never be taken for granted as knowledge of them is created in which: "the being of things is an illusion a veil that must be torn aside in order to reveal the mute and invisible violence that is devouring them in the darkness. The ontology of the annihilation of beings assumes therefore validity as a critique of knowledge; but it is not so much a question of giving the phenomenon a foundation, of expressing both its limit and its law, of relating it to the finitude

that renders it possible, as of dissipating it and destroying it in the same way as life destroys beings: for its whole being is mere appearance".[54]

Retrovirology, given by modern biology, has become "a system of thought in which the objectivity of things is mere appearance, a chimera of the perceptions, an illusion that must be dissipated and returned to the pure will, without phenomenon, that brought these things into being and maintained them there for an instant".[55]

The ontology of 'retroviral disease'

Blattner's account of 'retroviruses' details the enduring concept of 'infectious retrovirus' in search of a material human locus, that of human (retroviral) disease. Bishop notes how retrovirology was "galvanized mainly by the discovery of reverse transcriptase and fostered by granting agencies" in the hope of unravelling the molecular basis for cancer.[56] HTLV-1 (the first 'human retrovirus') and AIDS changed all this, signifying the succession of new 'objects' described by Blattner as, "prototype human retroviruses" the lessons learned from which "will undoubtedly prove important in coming years as new examples of this class of virus are discovered".[57] He further states: "the prototype viruses discussed in this chapter serve as a model for the limitless potential that exists for studying disease etiology employing the tools of human retrovirology".[58] Thus, Blattner is describing a prototype model of a new biomedical order, one based on utilizing the concept of 'retrovirus' for constructing viral causation. For example: "..certain diseases that might be candidates for a retrovirus etiology..may also be worthy of further exploration with retroviral probes..may also be a fertile area for searching for immune-altering retroviruses".[59]

For AIDS, this model order is premised on the hypothesis of a particle resistant to isolation. Slippage has occurred between 'isolation' and detection of RT, particles seen by photography and viral antigen detection. Thus, AIDS retrovirology replaces isolation of an entity with detection of its so-called defining functional characters, not the realization of the structural entity itself. Detection entails surrogacy, as the technology of surrogacy is quicker, less costly; thus, the need for realising the spatial, structural viral entity itself is constructed as obsolete. In this way, surrogacy becomes the ontology of biomedical disease, and a basis for virological crafting of retroviral 'objects'. This ontology resonates with Haraway's conceptualization of modern scientific entities. It concedes both the heterogeneity and the mutability by which the constructed certainties of biomedical knowledge collapse. Haraway characterizes knowledge as a function of partial or 'situated' perspectives, which utilize perceptual and 'prosthetic' devices for envisaging their objects; thus, all knowledge is so 'situated'. What emerges is a barely embodied highly mutable semiosis of 'being', like the ontology of Foucault's Modern episteme. Adapting Haraway's framework to this discussion of retrovirus, the objectivity of the 'retrovirus' becomes a barely embodied biological semiosis of mere appearance, a chimera of the perceptions. Its ontology is ordered by acts of recognition, requiring 'prosthetic' means of 'technological visualization',[60] like antibody-tests, 'viral load' and T-cell counts etc., which all image (or imagine) the effects of this mutable, barely embodied object. Following on from Haraway's problematizing of modern 'objective' knowledge, for activists contesting the legitimacy of 'HIV', the problematic of empowerment lies in their evaluation of heterogeneous, juxtaposed knowledges in order to responsibly uncover and incorporate faithful accounts of the 'real' world.[61] This demands an ability to translate between differing knowledges situated within powerful communities. Thus, for activism, biomedical knowledge is heterogeneous, intrinsically power-laden and created within social relations, like the core and frontier knowledge of retroviral aetiology. Although a 'contestable text' within the 'power field' of biomedicine, it has an ontology which effects the formation of infectious entities from functional characters and affects the well-being of individuals. In this way, AIDS biomedicine appears to incorporate the norms and postulates of Foucault's Modern episteme, thus making any critique of its epistemology an onerous task, a struggle to conceive of an "almost incredible contradiction to received wisdom".[62] Following on from Haraway, we need the power of such biomedical critique, "not in order to deny meaning and bodies, but in order to live in meanings and bodies that have a chance for the future".[63]

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Why oils can heal or harm

Linoleic acid and alpha-linolenic acid are removed from many food oils says Sidney MacDonald Baker M.D. in his book Detoxification and Healing

The toxicity of bad oils and the benefits of good oils represent a very different kind of problem in detoxification from all others. Most of us have been taught to think of fat as basically dangerous, something to be avoided for the sake of one's health. No other factor in nutrition has gone from such a lowly to such an exalted position as my understanding of the importance of oils to health. Fats and oils have three quite different roles in the body, two of which account for the major shift in my appreciation of the subject.

1. The first role of fat is to hold up your pants, or otherwise provide the bulges and curves that belong to a well-rounded person. The fats and oils in your diet that become your body fat are an efficient form of stored energy. It is basically the only way the body has to store fuel that can carry you several hours beyond your last meal. We can store fats, which some plants do as well. Nuts and seeds are the best example of plant stores of fat.

2. The second role of fat in your body is to make waterproof membranes. I am referring to cell membranes. Your body is made of cells, which are units of life. Life goes on only in the watery environment inside cells, whose water has a special composition quite different from the water outside of cells. Every cell is enclosed in a membrane that provides the water-proofing that enables it to separate its inside water from the water of its surroundings. The cell membrane is made of an uninterrupted fabric made of oil molecules.

3. The third role of oil molecules in your body is to become hormones. A category of hormones unfamiliar to most people is the prostanoid hormones, discovered quite recently (in the 1960s). They do not have an affiliation with a particular organ. Shortages of these hormones produce symptoms that do not fit as neatly into the picture of a disease as do shortages of the other well-known hormones. Prostanoid hormones are made exclusively from fatty acids.

Whatever fats you eat become your fat.

Dietary fats enter the fat stores and cell membranes without being altered. If you eat chicken fat, your fat reflects the fatty acid composition of the chicken. If you were to eat only fat from olive oil, then your body's fat composition would reveal the distinctive proportions of the main fatty acids in olives.

Unlike proteins and carbohydrates, dietary fatty acids come into the body by a very direct path and are neither identified nor, for the most part, disassembled and reassembled. The body is capable of making all kinds of fatty molecules that are similar to the ones in your diet (except for two), but usually, it does not bother to do so; it uses the fat molecules (fatty acids) that you have eaten. After you swallow your food, the fats and oils are separated from the carbohydrate and protein as they pass through the upper part of the intestine. The fatty acids in the fat you eat go directly from the digestive tract into the bloodstream. This path consists of a vessel which delivers all the fats and oils of your meal directly to a large blood vessel at the base of the neck just below the collar bone.

The only two fats you cannot make, but have to get from food, are the raw materials for making a whole family of important hormones.

This is one of the most important scientific facts I have learned. To recap: when it comes to fat, you are what you eat. Although the body has the capacity to make fat molecules on its own (for example, from sugar), it generally does not do so. However, there are two essential fatty acids that the body cannot make. The pivotal fact here is that these two fatty acid molecules are the exclusive raw materials for making all of the prostanoid hormones.

Let me put it another way: the body has a constant need to synthesize, manufacture, create, build an assortment of substances called prostanoid hormones, the main vehicles for communication from cell to cell in the body. Prostanoid hormones are involved with short-distance message carrying, and there is no special organ in the body that has the exclusive job of producing them. A whole orchestra of prostanoid hormones are in constant production. Their combined effect is like music that cells play to their neighbors to keep their mutual efforts harmonized. All of the instruments of this music are made out of the two kinds of fat molecule that have to be eaten regularly to supply the necessary raw materials. It seems extraordinary to me that Mother Nature made us entirely dependent on our diet to supply these two molecules when we have a full capacity to produce at least a couple of dozen other molecules that differ from them in what appear to be only minor details. The names of the two essential fatty acids are linoleic acid and alpha-linolenic acid. Omega-3 fatty acids are the family of fatty acids we make from alpha-linolenic acid. When the manufacturers of vegetable oil developed methods for squeezing various seeds to extract their oils, and various kinds of "salad" or "cooking" oils hit the market in the 1950s, the oils were able to survive on grocery shelves for months without becoming rancid because the manufacturers removed the alpha-linolenic acid, the oil that has the greatest tendency to rancidity. At the time, no one knew that linoleic acid and alpha-linolenic acid had crucial roles as the exclusive precursors of all of the prostanoid hormones.

Flaxseed oil has an exceptional concentration (about 40%) of the thinnest, most flexible alpha-linolenic oil of all seeds and nuts.

All of the cell membranes of the body are made of fatty acids. Cell membranes need to be flexible to function. The two fatty acids we cannot make are the flexible ones. Life goes on in cells, not in the spaces in between. In order for all the cells (100,000,000,000,000 or 10^{13} of them) to function optimally, they must be able to communicate with each other. Prostanoid hormones are one of the most important means for such communication. Each individual cell must be open to such communication while at the same time it must be closed off from the water that surrounds it. The fabric of their waterproof membranes is a velvet made of fatty acids forming the nap. Each tiny strand that forms the surface of the velvet is a fatty acid, a long skinny molecule standing on its end amidst millions of others in all directions, each nested against the other like stacked spoons. One layer of fatty acid velvet faces inward to the inside of the cell and another faces outward, and the whole arrangement owes its most important property (being waterproof) to the fact that oil and water do not mix. There is water inside the membrane and water outside the membrane but the membrane itself does not get wet. For the cell membrane to be flexible it must be made of flexible oils. Which are the most flexible oils? You guessed it: linoleic acid and, especially, alpha-linoleic acid.

Flaxseed oil is especially medicinal for individuals who require an oil change in that it has an exceptional concentration (about 40%) of the thinnest, most flexible alpha-linolenic oil of all seeds and nuts. Flaxseed oil is a traditional food oil in parts of Eastern Europe such as the Ukraine. Antioxidants are abundant in oils that are freshly pressed by old fashioned methods available before the modern hot steel rollers used so widely today. Its effectiveness in treating a wide variety of skin, hair and nail problems and much deeper underlying medical disorders is owed to its capacity to restore flexibility to cell membranes and replenish the supply of raw materials for prostaglandin hormone synthesis.

Detoxification and Healing, The Key to Optimum Health by Sidney Macdonald Baker M.D., Keats Publishing, USA, 1997

Lust for Life...

Personal views of the commitment to living

Greg Bunker

It has been known since mythic times that disease epidemics follow wars and that the symptoms of the disease always bear some sort of metaphorical relationship to the events of the war.

According to Homer, the Siege of Troy was followed by an epidemic or famine that decimated Greece. This natural disaster supposedly lasted twelve years, the duration of the Siege. The Crusades were followed by the Plagues.

In this century, the First World War was followed by an epidemic of Spanish Influenza whose symptoms mimicked those of a poison gas raid. The rise of the Reich and the Second World War were characterised by the use of terror and poliomyelitis can be seen by some as a physical manifestation of the psychological state of being paralysed by fear. Even the Gulf War was followed by a disease syndrome. The symptoms of "Desert Storm Syndrome" as reported in Congressional hearings appear to mimic the emotional state that might be expected of the Israeli conscripts pinned into trenches by Saddam's shock troops and mashed by US tanks.

It is my observation of the progression of my own case diagnosed as AIDS and that of a large number of others over a fifteen year period, that AIDS is the post Vietnam War epidemic. We went into Vietnam like maniacs and left in our socks and AIDS can be seen as a manic depressive disorder in which the physical symptoms reflect the emotional state of the patient in a very direct and apparently impossible way.

The disease begins with a manic phase in which the body becomes very healthy and responds quickly to relatively small inputs of exercise. We look and feel very good and we become very conscious of our bodies. Sexual interest increases and the person typically becomes aggressive and often abusive of others. The person is on a collision course with the world. The behaviour becomes more extreme until he is brought down in some way. Then ensues a depressive phase. The subject is directed into narrowing cycles of self destructive behaviour and the associated emotional distress is expressed as physical illness.

In this phase, patients typically become obsessed with being penetrated, either emotionally, by needle, sexually or as victims of physical violence. Those people who routinely penetrate themselves in some way (for example, haemophiliacs and IVDUs) seem to go directly into the depressive phase with little or no expression of manic behaviour.

Are the infections opportunistic? They reflect the (usually suppressed) emotional condition of the patient according to classical Chinese and medieval European notions of metabolic function as an expression of emotional states, the humours. As the condition progresses, we become increasingly easily obsessed. The more attention we pay to physical illness, the worse it gets yet to ignore or deny these conditions drives us further into the cycles of destructive behaviour that locked the susceptibility to infection in the first place.

The same patients tend to get the same infections over and over. When behavioural routines are suspended (for example by confinement to hospital) the illness tend to resolve, at least early in the disease. If an active attempt is made to modify behaviour the subject is likely to acquire a new set of opportunists.

The problem is that the behaviour reflects emotional blockage and these patterns of emotional blockage are socially maintained as a reflection of the behaviour. Neither causes the other. The behaviour is driven by suppressed emotion and the suppression is maintained by the behaviour which reflects the sense of self or "I". In a cautionary Aryan-Vedic tale ("The Humbling of Indra") this state of affairs is expressed thus: "Action is a function of character which in turn is controlled by custom. This is the whole substance of the secret. This knowledge is the ferry across the ocean of hell to beatitude."

The more you 'try', the worse it gets. The only way that I know through the condition is to stop. Stop the behaviour that is reflected in the illness. Since you may have no simple way of knowing just what has to be eliminated, the only thing to do is to reduce all social interaction to a minimum. To eat well, exercise in a stretching or opening up sort of way and to meditate a lot.

As I sit in meditation memories flood up. If I react in any way, they are simply driven back into unconsciousness. If I just let them be, they burn off and I am freed of them. As they do, the world becomes more and more dreamlike and my sense of individual existence dissolves.

"I allowed my mind without restraint to think of what it pleased, and my mouth to talk about whatever it pleased; I then forgot whether 'this and not-this' were mine or others', whether the gain or loss was mine or others'; nor did I know whether Lao-shang-shi was my teacher and Pa-kao was my friend. In and out I was thoroughly transformed; and then it was that the eye became like the ear and the ear like the nose and the nose like the mouth and there was nothing that was not identified. As the mind became concentrated, the form dissolved, the bones and flesh all thawed away; I did not know upon what my frame was supported, or where my feet were treading; I just moved along with the wind like a leaf of the tree detached from its stem; I was unconscious whether I was riding on the wind or the wind was riding on me." - So Lieh-Tsu

So long as I can get back to this state of mind, I seem to remain healthy without needing to take drugs. If I am disturbed I lose myself in the world and become ill.

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Joan Shenton
of Meditel Productions

HEART TO HAART

I kept on wondering why everyone was talking about "hearts" at the 12th World AIDs Conference in Geneva. Admittedly the conference logo was a cracked heart with psychedelic colours floating through it. 'AIDS with a human face' seemed to be the message from the clever PR strategists. "Bridging the Gap" was the official theme. We were asked to be concerned about the fact that 90% of people with AIDS lived in the southern hemisphere and could not afford "heart". Should they be getting "heart" free from the Northern hemisphere, or at least at a reduced price? Then it dawned on me. It was in the massive rock stadium sized arena, where speakers like Fauci, Ho and Gallo appeared in miniature under a giant screen magnifying their faces 1,000 fold.

Here, Fauci was bemoaning the fact that there seemed to be a latent reservoir of virus that simply wouldn't go away.

After three years of HAART it was still there and able to reproduce. "We are trying to understand this", he said. Then I realised that HAART stood for Highly Active Antiretroviral Therapy. So this is what they were calling the myriad combination drug cocktails! How clever of them to combine this acronym with the conference logo. It was bound to sell a lot more drugs - drugs that don't work against 'HIV'.

And the masterly PR strategy didn't stop there. The huge pharmaceutical companies advertising the different combination cocktails in the exhibition hall latched onto the "heart" theme with enthusiasm. Everywhere the sales pitch was one of sexual love and contact. It was as though people were being asked to fall in love with their tablets. Everywhere photographs of naked bodies and 'high' looking faces embracing; hands caressing other hands holding gleaming white tablets and signs that spoke of being "touched by HIV".

This is what we found at the conference. A massive sales pitch and precious little else. Just what the journalist at *Nature* said to me when, a week before the conference began I had asked if she would be there. "Oh no", she said, "We won't be there. There's no science at these conferences any more." Was there ever?

Back Issues

Copies are available for all back issues of the magazine. Where we have no stock of original copies, articles reproduced from these issues are available individually. The index below details the contents of recent issues (available as complete magazines). A list of contents of earlier issues is available on request. To order please use the form overleaf.

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HEAL Conference: Clair Walton reports on the conference in Toronto
Book Review: Celia Farber found two books in one in Joan Shenton's Positively False
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Nutrition: Linda Lazarides on the importance of the liver and detoxing
Feature: A Seller's Market. Part 2 of Martin Walker's history of the AIDS-defining drug
Dissenting View: Whose hysteria?
Plus: News, HIV Watch, Lust for Life, etc

Why CONTINUUM?

CONTINUUM, the CONTINUUM magazine**, the other projects of the organisation and its international network were born out of the necessity for integrity, justice and healing around the death prognosis promoted throughout the AIDS-era.**

The orthodox view on AIDS holds that it is caused by a retrovirus known as hiv that is transmitted through the exchange of body fluids. Once infected, a person will remain well for a time, though infectious to others, before going on to develop AIDS and dying. There is still no 'cure', just drug therapies said to slow the progress of the disease, and T-cell and 'viral load' counts to 'measure health'.

Fourteen years after the proposal of an hiv as the "probable cause of AIDS", toxic medication is still marketed and huge sums of money are spent on research with little verifiable hope for the future. Powerful pharmaceutical corporations have grown ever larger, capable in some ways of superceding the 'richest' nations on Earth. These corporations have substantial financial interests in controlling disease management, diagnostic tests and so-called terminal illnesses.

Naive patients - mostly homosexuals, drug ab/users, black people, US Latinos, haemophiliacs, babies and the destitute - have become guinea pigs condemned to die young after being labelled with hiv. In contrast, the questioning of the hiv/AIDS-hypothesis through the images and voices of resistance of many analysts worldwide - including scientists, Nobel Laureates, medical doctors, researchers and health activists - has been generally disregarded by the mass media.

CONTINUUM **magazine began as a newsletter encouraging those effected to become responsible and to participate consciously in their own healing process. An important function of the work is to generate and disseminate alternative information on AIDS and immunity, establishing networks with those dedicated to the analysis of scientific research and holistic models of health.**

Assumptions run so deep among the medical establishment that only the unproved viral hypothesis has been promoted or funded in AIDS. Immunological investigations have confirmed more than 60 conditions can trigger a positive 'hiv-antibody' test result. There is no scientific documentation proving the existence of hiv as a unique, exogenous retrovirus, much less one capable of precipitating some 29 diseases and death.

Among CONTINUUM **readers are a good number of long-term diagnosed individuals not taking anti-retroviral drugs. Many are doing well after more than 13 years of being labelled with hiv. We work towards enabling alternative and immune enhancing studies that will help enable people maintain or regain their health.**

CONTINUUM **magazine is a unique forum for those in the scientific and health communities challenging the AIDS orthodoxy. CONTINUUM is a voluntary organisation dedicated to providing information we believe necessary for the fuller understanding of hiv/AIDS, immunity and health. We aim to encourage those whose lives have in some way been touched by the hiv-hypothesis to seek scientific proofs that an hiv has been isolated and exists, and that it causes AIDS. The organisation relies on subscriptions and donations to maintain its work. Your support in any way is greatly appreciated.**