Excerpt with a few updates from ***: KICKING THE SACRED COW: Questioning the Unquestionable and Thinking the Impermissible***, by James P. Hogan, Baen Books, New York, 2004.
A short biosketch of James P. Hogan is attached on page 20.

CHAPTER SIX

CLOSING RANKS

AIDS Heresy In The Viricentric Universe

"*Sometimes a deception cannot be prevented from running its course, even at terrible cost, until eventually it collides with reality.*"
--Phillip Johnson

"*Maybe someday AIDS experts will be as well informed as they are well funded.*"
--Christine Maggiore, Director, Alive & Well

(Footnotes refer to references cited at the end of this chapter.
For further information, see the James P. Hogan web site at
http://www.jamesphogan.com/books/sacred/baen04/titlepage.shtml)

Science is supposed to be concerned with objective truth--the way things are, that lie beyond the power of human action or desires to influence. Facts determine what is believed, and the consequences, good or bad, fall where they may. Politics is concerned with those things that are within human ability to change, and in the realm of politics, beliefs are encouraged that advance political agendas. All too often in this case, truth is left to fall where it may.

When the hysteria over AIDS broke out in the early eighties, I was living in the Mother Lode country in the Sierra Nevada foothills of northern California. Since I had long dismissed the mass media as a credible source of information on anything that mattered, I didn't take a lot of notice. A close friend and drinking buddy of mine at that time was a former Air Force physicist who helped with several books that I worked on there. Out of curiosity we checked the actual figures from official sources such as various city and state health departments. The number of cases for the whole of California turned out to be somewhere between 1100 and 1200, and these were confined pretty much totally to a couple of well defined parts of San Francisco and Los Angeles associated with drugs and other ways of life that I wasn't into. So was this the great "epidemic" that we'd been hearing about? Ah, but we didn't understand, people told us. It was caused by a new virus that was 100% lethal and about to explode out into the population at large. You could catch it from sex, toilet seats, your dentist, from breathing the air, and once you did there was no defense. "One in five heterosexuals could be dead from AIDS at the end of the next three years."[1] Our species could be staring at extinction.

But I didn't buy that line either. I can't really offer a rationally packaged explanation of

[1] "Oprah Winfrey Show," 18th February, 1987

why. Part of it was that although AIDS had been around for some years, it was still clearly confined overwhelmingly to the original risk groups to which the term had first been applied. If it was going to "explode" out into the general population, there should have been unmistakable signs of its happening by then. There weren't. And another large part, I suppose, was that scaring the public had become such a lucrative and politically fruitful industry that the more horrific the situation was made to sound, the more skeptically I reacted. All the claims contradicted what my own eyes and ears told me. Nobody that I knew had it. Nobody that I knew knew anybody who had it. But "everybody knew" it was everywhere. Now, I don't doubt that when the Black Death hit Europe, or when smallpox reached the Americas, people knew they had an epidemic. When you need a billion-dollar propaganda industry to tell you there's a problem, you don't have a major problem.

So I got on with life and largely forgot about the issue until I visited the University of California, Berkeley, to meet Peter Duesberg, a professor of molecular and cell biology, whom a mutual friend had urged me to contact. Talking to Duesberg and some of his colleagues, both then and on later occasions, left me stupefied and led to my taking a new interest in the subject. This has persisted over the years since and involved contacts with others not only across the U.S., but as far removed as England, Ireland, Germany, Russia, Australia, and South Africa. We like to think that the days of the Inquisition are over. Well, here's what can happen to politically incorrect science when it gets in the way of a bandwagon being propelled by lots of money--and to a scientist who ignores it and attempts simply to point at what the facts seem to be trying to say.

AN INDUSTRY OUT OF WORK

The first popular misunderstanding to clear up is that "AIDS" is not something new that appeared suddenly around 1980. It's a collection of old diseases that have been around for as long as medical history, that began showing up in clusters at greater than the average incidence.[2] An example was *Pneumocystis carinnii*, a rare type of pneumonia caused by a normally benign microbe that inhabits the lungs of just about every human being on the planet; it becomes pathogenic (disease-causing) typically in cancer patients whose immune systems are suppressed by chemotherapy. And, indeed, the presence of other opportunistic infections such as esophagal yeast infections confirmed immunosuppression in all of these early cases. Many of them also suffered from a hitherto rare blood-vessel tumor known as Kaposi's sarcoma. All this came as a surprise to medical authorities, since the cases were concentrated among males aged 20 to 40, usually considered a healthy age group, and led the conditions being classified together as a syndrome presumed to have some single underlying cause. The victims were almost exclusively homosexuals, which led to a suspicion of an infectious agent, with sexual practices as the main mode of transmission. This seemed to be confirmed when other diseases associated with immune deficiency, such as TB among drug abusers, and various infections experienced by hemophiliacs and transfusion recipients, were included in the same general category too, which by this time was officially designated Acquired Immune Deficiency Syndrome, or "AIDS."

Subsequently, the agent responsible was stated to be a newly discovered virus of the kind known as "retroviruses," later given the name Human Immunodeficiency Virus, or HIV. The

[2] Duesberg, 1996(a), p.210

AIDS diseases were opportunistic infections that struck following infection by HIV, which was said to destroy "T-helper cells," a subset of white blood cells which respond to the presence of invading microbes and stimulate other cells into producing the appropriate antibodies against them. This incapacitated the immune system and left the victim vulnerable.

And there you have the basic paradigm that still pretty much describes the official line today. This virus that nobody had heard of before--the technology to detect it didn't exist until the eighties--could lurk anywhere, and no vaccine existed to protect against it. Then it was found in association with various other kinds of sickness in Africa, giving rise to speculations that it might have originated there, and the media gloried in depictions of a global pandemic sweeping across continents out of control. Once smitten there was no cure, and progression to exceptionally unpleasant forms of physical devastation and eventual death was inevitable and irreversible.

While bad news for some, this came at a propitious time for a huge, overfunded and largely out-of-work army within the biomedical establishment, which, it just so happened, had been set up, equipped, trained, and on the lookout for exactly such an emergency.[3] Following the elimination of polio in the fifties and early sixties, the medical schools had been churning out virologists eager for more Nobel Prizes. New federal departments to monitor and report on infectious diseases stood waiting to be utilized. But the war on cancer had failed to find a viral cause, and all these forces in need of an epidemic converged in a crusade to unravel the workings of the deadly new virus and produce a vaccine against it. No other virus was ever so intensively studied. Published papers soon numbered thousands, and jobs were secure as federal expenditures grew to billions of dollars annually. Neither was the largess confined to just the medical-scientific community and its controlling bureaucracies. As HIV came to be automatically equated with AIDS, anyone testing positive qualified as a disaster victim eligible for treatment at public expense, which meant lucrative consultation and testing fees, and treatment with some of the most profitable drugs that the pharmaceuticals industry has ever marketed.

And beyond that, with no vaccine available, the sole means of prevention lay in checking the spread of HIV. This meant funding for another growth sector of promotional agencies, advisory centers, educational campaigns, as well as support groups and counselors to minister to afflicted victims and their families. While many were meeting harrowing ends, others had never had it so good. Researchers who would otherwise have spent their lives peering through microscopes and cleaning Petri dishes became millionaires setting up companies to produce HIV kits and drawing royalties for the tests performed. Former dropouts were achieving political visibility and living comfortably as organizers of programs financed by government grants and drug-company handouts. It was a time for action, not thought; spreading the word, not asking questions. Besides, who would want to mess with this golden goose?

Storm-cloud Over the Parade

And then in the late eighties, Peter Duesberg began arguing that AIDS might not be caused by HIV at all--nor by any other virus, come to that. In fact, he didn't even think that "AIDS" was

[3] Duesberg, 1996(a), Chapters 4, 5

infectious! This was not coming from any lightweight on the periphery of the field. Generally acknowledged as one of the world's leading authorities on retroviruses, the first person to derive the genetic map of the retroviral genome, Duesberg had played a major role in exploring the possibility of viruses as the cause of cancers. In fact it was mainly his work in the seventies that showed this conclusively not to be the case, which had not exactly ingratiated him to many when that lavishly funded line of research was brought to a close. But this didn't prevent his being tipped as being in line for a Nobel Prize, named California Scientist of the Year in 1971, awarded an Outstanding Investigator Grant by the National Institutes for Health in 1985, and inducted to the prestigious National Academy of Sciences in 1986.

What Duesberg saw was different groups of people getting sick in different ways for different reasons that had to do with the particular risks that those groups had always faced. No common cause tying them all together had ever been convincingly demonstrated; indeed, why such conditions as dementia and wasting disease should have been considered at all was something of a mystery, since they are not results of immunosuppression. Drug users were ruining their immune systems with the substances they were putting into their bodies, getting TB and pneumonia from unsterile needles and street drugs, and wasting as a consequence of the insomnia and malnutrition that typically go with the lifestyle; homosexuals were getting sarcomas from the practically universal use of nitrite inhalants, and yeast infections from the suppression of protective bacteria by overdosing on antibiotics used prophylactically; hemophiliacs were immune-suppressed by the repeated infusion of foreign protein contained in the plasmas of the unpurified clotting factors they had been given up to that time; blood recipients were already sick for varying reasons; people being treated with the "antiviral" drug AZT were being poisoned; Africans were suffering from totally different diseases long characteristic of poverty in tropical environments; and a few individuals were left who got sick for reasons that would never be explained. The only difference in recent years was that some of those groups had gotten bigger. The increases matched closely the epidemic in drug use that had grown since the late sixties and early seventies, and Duesberg proposed drugs as the primary cause of the rises that were being seen.[4]

Although Duesberg is highly qualified in this field, the observations that he was making really didn't demand doctorate knowledge or rarefied heights of intellect to understand. For a start, years after their appearances, the various "AIDS" diseases remained obstinately confined to the original risk groups, and the victims were still over 90 percent male. This isn't the pattern of an infectious disease, which spreads and affects everybody, male and female alike. For a new disease loose in a defenseless population, the spread would be exponential. And this was what had been predicted in the early days, but it just hadn't happened. While the media continued to terrify the public with a world of their own creation, planet Earth was getting along okay. Heterosexuals who didn't use drugs weren't getting AIDS; for the U.S., subtracting the known risk groups left about 500 per year--fewer than the fatalities from contaminated tap water. The spouses and partners of AIDS victims weren't catching it. Prostitutes who didn't do drugs weren't getting it, and customers of prostitutes weren't getting it. In short, these had all the characteristics of textbook non-infectious diseases.

[4] See Duesberg, 1992; and Duesberg et al., 2003 for a full account of the theory

It is an elementary principle of science and medicine that correlation alone is no proof of cause. If A is reported as generally occurring with B, there are four possible explanations: (1) A causes B; (2) B causes A; (3) something else causes both A and B; (4) the correlation is just coincidence or has been artificially exaggerated, e.g. by biased collecting of data. There's no justification in jumping to a conclusion like (1) until the other three have been rigorously eliminated.

In the haste to find an infectious agent, Duesberg maintained, the role of HIV had been interpreted the wrong way around. Far from being a common cause of the various conditions called "AIDS," HIV itself was just a "marker" for high-risk groups, who acquired AIDS defining diseases by drug consumption, sex, transfusions and other non-contagious factors, but was not in itself responsible for the health problems that those groups were experiencing. The high correlation between HIV and AIDS that was constantly being alluded to was an artifact of the way in which AIDS was defined:

HIV + indicator disease = AIDS
Indicator disease without HIV = Indicator disease.

So if you've got all the symptoms of TB, and you test positive for HIV, you've got AIDS. But if you have a condition that's clinically indistinguishable and don't test positive for HIV, you've got TB.

And that, of course, would have made the problem scientifically and medically trivial.

Anatomy of an Epidemic

When a scientific theory fails in its predictions, it is either modified or abandoned. Science welcomes informed criticism and is always ready to reexamine its conclusions in the light of new evidence or an alternative argument. The object, after all, is to find out what's true. But it seems that what was going on here wasn't science. Duesberg was met by a chorus of outrage and ridicule, delivered with a level of vehemence that is seldom seen within professional circles. Instead of willingness to reconsider, he was met by stratagems designed to conceal or deny that the predictions were failing. This is the kind of reaction typical of politics, not science, usually referred to euphemistically as "damage control."

For example, statistics for new AIDS cases were always quoted as cumulative figures that could only get bigger, contrasting with the normal practice with other diseases of reporting annual figures, where any decline is clear at a glance. And despite the media's ongoing stridency about an epidemic out of control, the actual figures from the Centers for Disease Control (CDC), for every category, *were* declining, and had been since a peak around 1988. This was masked by repeated redefinitions to cover more diseases, so that what wasn't AIDS one day became AIDS the next, causing more cases to be diagnosed. This happened five times from 1982 to 1993, with the result that the first nine months of 1993 showed as an overall rise of 5% what would otherwise--i.e. by the 1992 definition--have been a 33% drop.[5]

Currently (January, 2003) the number indicator diseases is 29. One of the newer categories

[5] Root-Bernstein, 1993

added in 1993 was cervical cancer. (Militant femininists had been protesting that men received too much of the relief appropriations for AIDS victims.) Nobody was catching anything new, but suddenly in one group of the population what hadn't been AIDS one day became AIDS the next, and we had the headlines loudly proclaiming that heterosexual women were the fastest-growing AIDS group.

A similar deception is practiced with percentages, as illustrated by figures publicized in Canada, whose population is around 40 million. In 1995, a total of 1410 adult AIDS cases were reported, 1295 (91.8%) males and 115 (8.2%) females. 1996 showed a startling decrease in new cases to 792, consisting of 707 males (89.2%) and 85 females (10.8%). So the number of adult female AIDS cases actually decreased by 26% from 1995 to 1996. Yet, even though the actual number decreased, because the percentage of the total represented by women increased from 8.2% in 1995 to 10.8% in 1996, the Quarterly Surveillance Report (August 1997) from the Bureau of HIV/AIDS and STD at the Canadian Laboratory Centre for Disease Control issued the ominous warning that AIDS cases among Canadian women had dramatically increased.[6]

Meanwhile, a concerted campaign across the schools and campuses was doing its part to terrorize young people over the ravages of teenage AIDS. Again, actual figures tell a different story. The number of cases in New York City reported by the CDC for ages 13-19 from 1981 to the end of June 1992 were 872. When homosexuals, intravenous drug users, and hemophiliacs are eliminated, the number left not involving these risks (or not admitting to them) reduces to a grand total of 16 in an 11 year period. (Yes, sixteen. You did read that right.)[7]

The correlation between HIV and AIDS that was repeatedly cited as proving cause was maintained by denying the violations of it. Obviously if HIV is the cause, the disease can't exist without it. (You don't catch flu without having the flu virus.) At a conference in Amsterdam in 1992, Duesberg, who had long been maintaining that dozens of known instances of AIDS patients testing negative for HIV had been suppressed, produced 4,621 cases that he had found in the literature. The response was to define them as a new condition designated Idiopathic CD4+ Lymphocytopenia, or ICL, which is obscurese for "unexplained AIDS symptoms." The figures subsequently disappeared from official AIDS-counting statistics.[8]

Questioning the Infectious Theory

Viral diseases strike typically after an incubation period of days or weeks, which is the time in which the virus can replicate before the body develops an immunity. When this didn't happen for AIDS, the notion of a "slow" virus was introduced, which would delay the onset of symptoms for months. When a year passed with no sign of an epidemic, the number was upped to five years; when nothing happened then either, to ten. Now we're being told ten to fifteen. Inventions to explain failed predictions are invariably a sign of a theory in trouble. (Note. This is not the same as a virus going dormant, as can happen with some types of herpes, and reactivating later, such as in times of stress. In these cases, the most pronounced disease symptoms occur at the time of primary infection, before immunity is established. Subsequent outbreaks are less severe--immunity is

[6] Maggiore, 2000, p.46
[7] Thomas, 1993
[8] Thomas et al, 1994

present, but reduced--and when they do occur, the virus is abundant and active. This does not describe AIDS. A long delay before any appearance of sickness is characteristic of the cumulative buildup of a toxic cause, like lung cancer from smoking or liver cirrhosis from alcohol excess.)

So against all this, on what grounds was AIDS said to be infectious in the first place? Just about the only argument, when you strip it down, seems to be the correlation--that AIDS occurs in geographic and risk-related clusters. This is not exactly compelling. Victims of airplane crashes and Montezuma's revenge are found in clusters too, but nobody takes that as evidence that they catch their condition from each other. It all becomes even more curious when you examine the credentials of the postulated transmitting agent, HIV.

One of the major advances in medicine during the 19th century was the formulation of scientific procedures to determine if a particular disease is infectious--carried by some microbe that's being passed around--and if so, to identify the microbe; or else a result of some factor in the environment, such as a dietary deficiency, a local genetic trait, a toxin. The prime criteria for making this distinction are known as Koch's Postulates, from a paper by the German medical doctor Robert Koch published in 1884 following years of investigation into such conditions as anthrax, wound infections, and TB. It's ironic to note that one of the problems Koch was trying to find answers to was the tendency of medical professionals, excited by the recent discoveries of bacteria, to rush into finding infectious causes for everything, even where there were none, and their failure to distinguish between harmless "passenger" microbes and the pathogens actually responsible for illness.

There are four postulates, and when all are met, the case is considered proved beyond reasonable doubt that the disease is infectious and caused by the suspected agent. HIV as the cause of AIDS fails every one.[9]

(1) The microbe must be found in all cases of the disease.

By the CDC's own statistics, for 25% of the cases diagnosed in the U.S. the presence of HIV has been inferred presumptively, without actual testing. And anyway, by 1993, over 4000 cases of people dying of AIDS diseases were admitted to be HIV-free. The World Health Organization's clinical case-definition for AIDS in Africa is not based on an HIV test but on certain clinical symptoms, none of which are new or uncommon on the African continent. (How this can be so while at the same time HIV is insisted to be the cause of AIDS is a good question. The required logic is beyond my abilities.) Subsequent testing of sample groups diagnosed as having AIDS has given negative results in the order of 50%. Why diseases totally different from those listed in America and Europe, now not even required to show any HIV status, should be called the same thing is another good question.

(2) The microbe must be isolated from the host and grown in a pure culture.

This is to ensure that the disease was caused by the suspect germ and not by another unidentified germ in a mixture of microbes. The tissues and body fluids of a patient with a genuine viral disease will have so many viruses pouring out of infected cells that it is a straightforward matter--standard undergraduate exercise--to separate a pure sample and compare the result with

[9] Duesberg, 1996(a), pp.174-186

known cataloged types. There have been numerous claims of isolating HIV, but closer examination shows them to be based on liberal stretchings of what the word has always been understood to mean. For example, using chemical stimulants to shock a latent viral DNA to express itself in a cell culture removed from any active immune system is a very different thing from demonstrating active viral infection.[10] In short, no isolation of HIV has been achieved which meets the standards that virology normally requires. More on this later.

(3) The microbe must be capable of reproducing the original disease when introduced into a susceptible host.

This asks to see that the disease can be reproduced by injecting the allegedly causative microbe into an uninfected, otherwise healthy host. It does not mean that the microbe must cause the disease every time (otherwise everyone would be sick all the time).

Two ways in which this condition can be tested are: injection into laboratory animals; accidental infection of humans. (Deliberate infection of humans would be unethical). Chimpanzees have been injected since 1983 and developed antibodies, showing that the virus "takes," but none has developed AIDS symptoms. There have been a few vaguely described claims of health workers catching AIDS from needle sticks and other HIV exposure, but nothing conclusively documented. For comparison, the figure for hepatitis infections is 1500 per year. Hence, even if the case for AIDS were proved, hepatitis is hundreds of times more virulent. Yet we don't have a panic about it.

(4) The microbe must be found present in the host so infected.

This is irrelevant in the case of AIDS, since (3) has never been met.

The typical response to this violating of a basic principle that has served well for a century is either to ignore it or say that HIV is so complex that it renders Koch's Postulates obsolete. But Koch's Postulates are simply a formalization of common-sense logic, not a statement about microbes per se. The laws of logic don't become obsolete, any more than mathematics. And if the established criteria for infectiousness are thrown away, then by what alternative standard is HIV supposed to be judged infectious? Just clusterings of like symptoms? Simple correlations with no proof of any cause-effect relationship? That's called superstition, not science. It puts medicine back two hundred years.

SCIENCE BY PRESS CONFERENCE

So how did HIV come to be singled out as the cause to begin with? The answer seems to be, at a press conference. In April, 1984, the Secretary of Health and Human Services, Margaret Heckler, sponsored a huge event and introduced the NIH researcher Robert Gallo to the press corps as the discoverer of the (then called HTLV-III) virus, which was declared to be the probable cause of AIDS. This came before publication of any papers in the scientific journals, violating the normal protocol of giving other scientists an opportunity to review such findings before they were made public. No doubt coincidentally, the American claim to fame came just in time to preempt the French researcher Luc Montagnier of the Pasteur Institute in Paris, who had already published in the literature his discovery of what later turned out to be the same virus.

[10] Papadopulos-Eleopulos et al, 1993

From that point on, official policy was set in stone. All investigation of alternatives was dropped, and federal funding went only to research that reflected the approved line. This did not make for an atmosphere of dissent among career-minded scientists, who, had they been politically free to do so, might have pointed out that even if the cause of AIDS were indeed a virus, the hypothesis of its being HIV raised some distinctly problematical questions.

Proponents of the HIV dogma assert repeatedly that "the evidence for HIV is overwhelming." When they are asked to produce it or cite some reference, the usual response is ridicule or some ad hominem attack imputing motives. But never a simple statement of facts. Nobody, to my knowledge, has ever provided a definitive answer to the simple question, "Where is the study that proves HIV causes AIDS?" It's just something that "everybody knows" is true. Yet despite the tens of thousands of papers written, nobody can produce one that says why. Reference is sometimes made to several papers that Gallo published in *Science* after the press conference, deemed to have settled the issue before any outside scientists had seen them.[11] But even if the methods described are accepted as demonstrating true viral isolation as claimed, which as we've seen has been strongly disputed, they show a presence of HIV in less than half of the patients with opportunistic infections, and less than a third with Kaposi's sarcoma--the two most characteristic AIDS diseases. This is "overwhelming" evidence? It falls short of the standards that would normally be expected of a term-end dissertation, never mind mobilizing the federal resources of the United States and shutting down all investigation of alternatives. And the case gets even shakier than that.

Biology's Answer to Dark Matter? The Virus that Isn't There

Viruses make you sick by killing cells. When viruses are actively replicating at a rate sufficient to cause disease, either because immunity hasn't developed yet or because the immune system is too defective to contain them, there's no difficulty in isolating them from the affected tissues. With influenza, a third of the lung cells are infected; with hepatitis, just about all of the liver cells. In the case of AIDS, typically 1 in 1000 T-cells shows any sign of HIV, even for terminally ill cases--and even then, no distinction is made of inactive or defective viruses, or totally non-functional viral fragments. But even if every one were a lethally infected cell, the body's replacement rate is 30 times higher. This simply doesn't add up to damage on a scale capable of causing disease.[12]

Most people carry traces of just about every microbe found in their normal habitat around with them all the time. The reason they're not sick all the time is that their immune system keeps the microbes inactive or down to numbers that can't cause damage.

According to Dr. Etienne de Harven, emeritus Professor of Pathology, University of Toronto, who worked on the electron microscopy of retroviral structures for 25 years at the Sloan Kettering Institute in New York, "Neither electron microscopy nor molecular markers have so far permitted a scientifically sound demonstration of retrovirus in AIDS patients."[13]

[11] Science 224: 497-500; 503-505; 506-508 (1984)
[12] Duesberg, 1992, p.210
[13] De Harven, 1998

Retroviruses, the class to which HIV belongs, survive by encoding their RNA sequences into the chromosomal DNA of the host cell (the reverse of the normal direction of information flow in cell replication, which is DNA to RNA to protein, hence the name). When that part of the host chromosome comes to be transcribed, the cell's protein- manufacturing machinery makes a new retrovirus, which leaves by budding off through the cell membrane. The retrovirus, therefore, leaves the cell intact and functioning, and survives by slipping a copy of itself from time to time into the cell's normal production run. This strategy is completely different from that of the more prevalent "lytic" viruses, which take over the cell machinery totally to mass-produce themselves until the cell is exhausted, at which point they rupture the membrane, killing the cell, and move on, much in the style of locusts. This is what gives the immune system problems, and in the process causes colds, flu, polio, rabies, measles, mumps, yellow fever, and so on.

But a retrovirus produces so few copies of itself that it's easy meat for an immune system battle-trained at dealing with lytic viruses. For this reason, the main mode of transmission for a retrovirus is from mother to child, meaning that the host organism needs to live to reproductive maturity.[14] A retrovirus that killed its host wouldn't be reproductively viable. Many human retroviruses have been studied, and all are harmless. (Some rare animal cancers arise from specific genes inserted retrovirally into the host DNA. But in these cases tumors form rapidly and predictably soon after infection--completely unlike the situation with AIDS. And a cancer is due to cells proliferating wildly--just the opposite of killing them.)

HIV conforms to the retroviral pattern and is genetically unremarkable. It doesn't kill T-cells, even in cultures raised away from a body ("in vitro"), with no immune system to suppress it. Indeed, HIV for research and as source of viral proteins for HIV-antibody tests is propagated in immortal lines of the very cell which, to cause AIDS, HIV is supposed to kill!--and in concentrations far higher than have ever been observed in any human, with or without AIDS.

AN EPIDEMIC OF AIDS TESTING

If HIV is virtually undetectable even in its alleged terminal victims, how do you test for it? You don't; you test for the antibody. What this means in principle is that a sample of the patient's blood is exposed to viral antigens derived from HIV prepared in vitro. If the blood plasma contains antibodies to that antigen, they will bind to it in a reaction that can be made visible by suitable means, termed Enzyme-Linked Immuno-Sorbent Assay, ELISA, for those who love quoting these things at cocktail parties.

Wait a minute. . . . Aren't antibodies part of the body's own defense equipment--that you either acquired from your mother, learned to make yourself at some time in life when you encountered the virus, or were tricked into making by a vaccine? If you have no symptoms of an illness and no detectable virus, but your system is supplying itself with antibodies, isn't this a pretty good description of immunity?

Yes--for any other disease, and if we were dealing with rationality. But this is the land of AIDS. The usual reason for antibody testing is as a check to see if somebody needs to renew their shots. Also, there are situations where testing for the antibody to a pathogen suspected of

[14] Duesberg, 1992

causing a condition can make sense, given the right circumstances. *If* a person is showing clinical symptoms that are *known* to be caused by that pathogen (perhaps by satisfying Koch's postulates), *and* a test has been shown *independently* to identify an antibody specific to that pathogen, *then* testing for the antibody can be a convenient way of confirming the suspected disease without going through the rigmarole of isolation.

But none of this is true of HIV. It has never been shown to cause anything, nor has a likely explanation even been advanced as to how it could. What, then, if anything, does the "HIV test" mean?

A genuinely useful antibody test can confirm that an *observed sickness* is due to the microbe thought to be the culprit. A positive HIV result from somebody who is completely symptom-free, on the other hand, means either that the antibody has been carried from birth without the virus ever having been encountered, or that the virus has been successfully neutralized to the point of invisibility. So in this context, "HIV positive" means HIV-immune. Interpreting it as a prediction that somebody will die years hence from some unspecifiable disease makes about as much sense as diagnosing smallpox in a healthy person from the presence of antibodies acquired through childhood vaccination.

Testing for What?

The test can mean a lot of other things too. The most common, known as ELISA, was developed in 1984 for blood screening. Now, when you're looking for contaminated blood, you *want* a test that's oversensitive--where anything suspect will ding the bell. If the positive is false, after all, you merely throw away a pint of blood; but if a false negative gets through, the consequences could be catastrophic. (Whether or not what you're screening for is a real hazard isn't the issue here.) But the same test started being used for diagnosis. And when people are being told that a positive result means certainty of developing a disease that's inevitably fatal, that's a very different thing indeed.

Here are some of the other things that can give a positive result, which even some doctors that I've talked to weren't aware of: prior pregnancy; alcoholism; certain cancers; malaria antibodies; leprosy antibodies; flu vaccination; heating of blood sample; prolonged storage of the sample; numerous other viruses; various parasitic diseases; hepatitis B antibodies; rheumatoid arthritis. In fact, almost 70 other causes have been shown to be capable of causing a positive reaction that have nothing to do with AIDS conditions.[15] In a mass screening in Russia in 1991, the WHO performed 30 million tests over a two-year period and found 30,000 positive results. Attempts to confirm these yielded around 300, of which 66 were actual AIDS cases.[16]

In addition to the tests being uncertain in that precisely what they measure has never been defined, and nonspecific in that many other factors can give the same result, they are not standardized. This means that no nationally or internationally accepted criteria exist for deciding what constitutes a positive result. What people take as a death sentence on the basis of the things

[15] Ransom & Day, 2000, p.71; Maggiore 2000, p.11

[16] Shenton, 1998, p.164

they've been told varies from one country to another, and even from one testing authority to another within the same country. The U.S. practice is to require a repeated positive result to an ELISA "Search" test, to be "Confirmed" by a test known as the HIV Western Blot (WB), which is supposed to be more accurate--although the UK won't use it because the risk of misinterpretation due to cross-reactions.

However, despite the reassuringly suggestive terminology, the WB remains as nonspecific, since it tests for the same antigen proteins as ELISA (but separated out into bands, so it's possible to see which ones are causing the reaction) and has likewise never been verified against any gold standard.[17] In fact, some authorities cite it as the "standard" for assessing ELISA. This is a bit like using one clock to check the accuracy another, when neither has been verified to be correct in the first place. According to the WB interpretations handed down in different places, an HIV positive African would not be positive in Australia; a positive from the U.S. Multicenter AIDS Cohort Study 1983-1992 would not be positive anywhere else in the world, including Africa.[18] The pamphlet supplied with the ELISA test kit from Abbot Laboratories states: "At present there is no recognized standard for establishing the presence or absence of antibodies to HIV-1 and HIV-2 in human blood."

Biotechnology's Xerox Machine

A new diagnostic definition, introduced with several others in 1993, now makes it possible to have AIDS simply on the basis of a low CD4 cell count, and a positive test of HIV. However, this amendment was not followed in Canada. Since 1995, more than half the new AIDS cases diagnosed in the U.S. have been in persons with no overt symptoms of AIDS illness, but who exhibited a "bad" cell count. All of those people, it seems, could be cured immediately simply by heading northward and crossing the 49th parallel. It would certainly be a lot cheaper than going on medication of dubious benefit--and with the certainty of not suffering any side effects.

The latest diagnostic disease indicator, "viral load," is an indirect measure divorced from any actual symptoms at all, which means that the efficacy of a drug is judged according to the observed change in a number deemed to be a "surrogate marker," and whether you're actually better, worse, or felt fine to begin with has got nothing to do with it. It's based on the "Polymerase Chain Reaction" method of amplifying formerly undetectable amounts of molecular genetic material--in this case, fragments of RNA that are said to be from HIV--by copying them in enormous numbers. *Forbes* magazine called it biotechnology's version of the Xerox machine. But errors are amplified too, by the same amount. The PCR process will indiscriminately copy dud HIVs that have been neutralized by antibodies, defectives that never formed properly in the first place, scraps of free-floating RNA, all of which end up being counted. And incredibly, these counts are presented as if they represented active viruses detected in the patient and not creations of the PCR process itself.[19] The Australian mathematician Mark Craddock has shown the mathematical basis of the model to be fatally flawed and based on wrong assumptions about what the number of RNA fragments says about the number of free viruses.[20] The inventor of the

[17] Papadopulos-Eleopulos et al, 1993
[18] Turner & McIntire, 1999
[19] Duesberg & Bialy, 1995, 1996
[20] Craddock 1995 and 1996

PCR method, Nobel Prize winner Kary Mullis, holds "quantitative PCR" to be a selfcontradiction and dismisses its application in this way as worthless.

The whole point is that if HIV were present and active in the body in the way that the viral load advocates claim, regardless of the foregoing, it should be readily amenable to standard virus-counting techniques. It shouldn't be necessary to use extra-high-sensitivity film to get an image if there's plenty of sunlight.

The Export Industry: Africa and Asia

"Everybody knows," from the flow of government and UN agency handouts uncritically passed on by the media that Africa is being devastated by an AIDS epidemic running out of control, with cases counted in tens of millions. What they probably don't realize is that the figures are estimates arrived at by basing very questionable statistical manipulations on what are often ludicrously small numbers, for example leftover blood samples in a village prenatal clinic. So when UNAIDS announces that 14 million Africans are AIDS victims, it doesn't mean that 14 million bodies have been counted, but that computers in Geneva have run a model with an assumed relationship between positive test results and AIDS deaths, and extrapolated the results to the population of the entire continent.[21] Thus in 1987 the WHO reported 1 million cases of "HIV disease" in Uganda. Yet 10 years later, the *cumulative* number of AIDS cases actually reported was 55,000.[22] Nobody knew what had happened to the other 945,000. There are strong financial and other pressures that encourage the reporting as AIDS of old diseases that have been endemic on the African continent throughout history. According to Dr. Harvey Bialy, an American with long experience in Africa, because of the international funds poured into AIDS and HIV work, "It has become a joke in Uganda that you are not allowed to die of anything but AIDS. . . . A friend has just been run over by a truck; doctors put it down as AIDS-related suicide" [23]

Unlike the cases in New York and San Francisco, the conditions that are reported as AIDS in Africa affect both sexes equally, which should be an immediate indicator that what's being talked about in the two instances are not the same thing. This is hardly surprising, since "AIDS" in Africa is accorded a different definition. The unifying factor that makes all of the 30-odd disparate indicator diseases "AIDS" in the West is testing positive for antibodies claimed to be specific to HIV. But in Africa no such test is necessary.[24]

Virus hunters armed with antibody test kits began descending on the continent in the mid 80s because of three pointers possibly linking it to AIDS: a now-discredited theory that HIV might have originated there; the presence in Africa of an AIDS-related sarcoma (although it had existed in Africa since ancient times); and the presence of a small number of native Africans among AIDS cases reported in Western countries.[25] And sure enough, they began finding people who reacted positive. Furthermore, the numbers were distributed equally between the sexes--just

[21] See Malan, 2001 for the story of a journalist true-believer who became an apostate.
[22] Geshekter, 1998
[23] Quoted in Hodgkinson, 1993
[24] Papadopulos-Eleopulos et al, 1995
[25] Johnson, 2001

what was needed to demonstrate that AIDS was indeed an infectious condition, which statistics in the West refused, obstinately, to confirm. However, in 1985 a different, "clinical" definition was adopted, whereby "AIDS" was inferred from the presence of prolonged fevers (a month or more), weight loss of 10 percent or greater, and prolonged diarrhea.

The problem, of course, is that attributing these symptoms to a sexually transmitted virus invites--indeed, makes inevitable--the reclassifying of conditions like cholera, dysentery, malaria, TB, typhus, long known to be products of poverty and tropical environments. More insidious, funds and resources are withdrawn from the support of low-cost but effective traditional clinics and the provision of basic nutrition, clean drinking water, and sanitation, and directed instead on ruinously expensive programs to contain a virus that exists for the most part in WHO statisticians' computers.[26] Since it's decreed that "AIDS is caused by HIV," cases diagnosed according to the above definition are attributed to HIV presumptively. But studies where actual tests have been conducted show up to a half as testing negatively[27]--making "AIDS" a catch-all that arises from the loosely interpreted antibody testing.

For as we've seen, many factors that are common in most African regions, such as malaria, leprosy, parasitical infections, TB, can also test positive. This is a particular problem in Africa, where the population carries a naturally high assortment of antibodies, increasing the probability of cross-reactions to the point of making any results worthless. A study in central Africa found that 70 percent of the reported HIV positives were false.[28, 29] Nevertheless, the official reports attribute all positives to HIV, making every instance automatically an AIDS statistic. Of the resulting numbers, every case not known to be a homosexual or drug abuser is presumed to have been acquired through heterosexual transmission, resurrecting tendencies to sexual stereotyping that go back to Victorian racial fantasies. Given the incentives of limitless funding, a glamorous crusader image, and political visibility, it isn't difficult to discern an epidemic in such circumstances. People in desperate need of better nutrition and sanitation, basic health care and education, energy-intensive industrial technologies and productive capital investment, are instead lectured on their morals and distributed condoms.

With the hysteria in the West now largely abated (although at the time of writing--early 2003--a campaign seems to be gathering momentum, targeting blacks), the bandwagon has moved on to embrace other parts of the Third World too. This follows a pattern that was set in Thailand, where an AIDS epidemic was said to be raging in the early nineties. Now, it so happens that over 90% of the inhabitants of Southeast Asia carry the hepatitis B antibody. The figure for actual disease cases in this region populated by tens of millions was around 700 in 1991, and by 1993 it had grown to 1500 or so. Perhaps what the reports meant was an epidemic of AIDS testing. Just like the inquisitors of old, the more assiduously the witch hunters apply their techniques and their instruments, sure enough they find more witches.

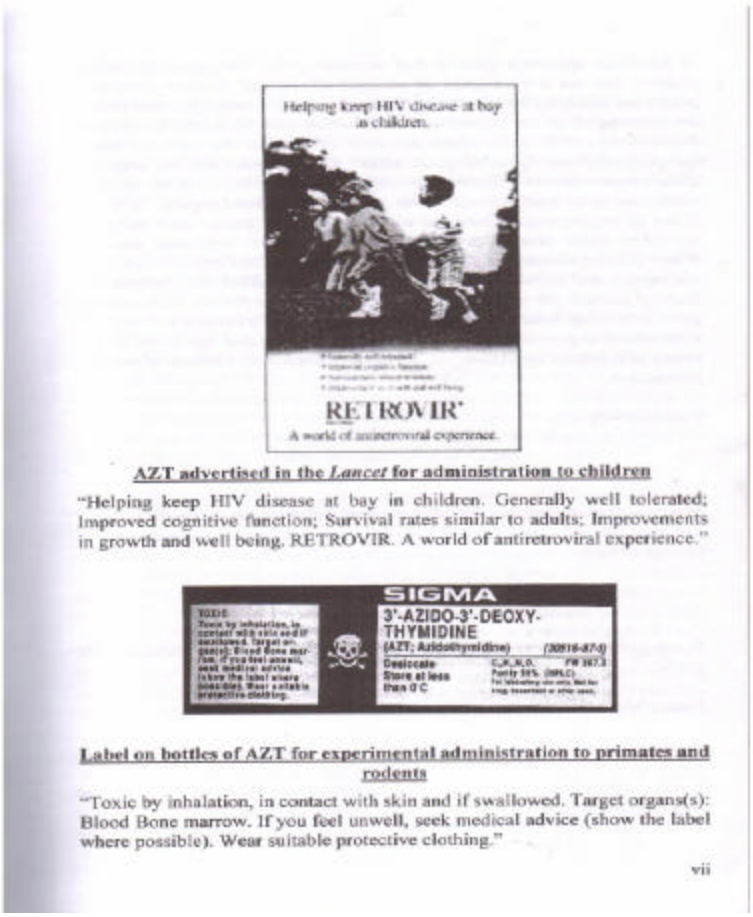
[26] Johnson, 1994, cites health care costs in Nigeria falling from $10-20 per person in 1974 to 3 cents in 1994.
[27] Shenton, 1993
[28] Geshekter, 1998
[29] Duesberg, 1993

"SIDE EFFECTS" JUST LIKE AIDS: THE MIRACLE DRUGS

Liquid Plumber: AZT

In the cuckoo land of HIV "science" anything becomes possible. To combat the effects of an agent declared soon after its discovery as being inevitably lethal after a dormancy of 10-15 years (now, how could that be known?), HIV positives, sick and symptom-free alike, were put on the drug AZT, which was billed as "antiviral". But, AZT was developed in the 1960s as a chemotherapy for leukemia because of its toxicity for human cells. It's known as a "nucleoside analog" drug, or DNA chain terminator, which means it stops the molecule from duplicating. It kills cells that try to reproduce. The idea for cancer treatment is that a short, shock program of maybe two or three weeks will kill the tumor while only half-killing the patient, and then you get him off it as quickly as possible. You *can't* take something like that four times a day indefinitely and expect to live. (Although some people don't metabolize it but pass it straight through; hence the few long-term AZT survivors that are pointed at to show how benign it is).

The two faces of AZT. The label below has appeared on bottles containing as little as 25 milligrams. Patients have been prescribed daily doses of 500 to 1,500 milligrams.



AZT advertised in the *Lancet* for administration to children

"Helping keep HIV disease at bay in children. Generally well tolerated; Improved cognitive function; Survival rates similar to adults; Improvements in growth and well being. RETROVIR. A world of antiretroviral experience."

Label on bottles of AZT for experimental administration to primates and rodents

"Toxic by inhalation, in contact with skin and if swallowed. Target organs(s): Blood Bone marrow. If you feel unwell, seek medical advice (show the label where possible). Wear suitable protective clothing."

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Chemotherapies are notoriously immunosuppressive. The "side effects" look just like AIDS. Officially acknowledged effects of nucleoside analog drugs include diarrhea, dementia, lymphoma (cancer), muscle wasting, and T-cell depletion, which are also AIDS-defining

conditions. Christine Maggiore, director of the West-Coast based organization Alive & Well, who, after being given a positive diagnosis and sternly delivered death-sentence that turned out to be false, went on to research the entire subject exhaustively and became an activist to share her findings. In her highly informative book, *What If Everything You Thought You Knew About AIDS Was Wrong?* (2000) she describes these medications superbly as "AIDS by Prescription."

Yet this is the treatment of choice. Nobody says it actually cures or stops AIDS, but the recipients have been told that they're due to die anyway--which could possibly be one of the most ghastly self-fulfilling prophecies in modern medical history. The claim is that it brings some temporary respite, based on results of a few trials in which the augurs of biochemistry saw signs of short-term improvement--although bad data were knowingly included, and other commentators have dismissed the trials as worthless.[30] In any case, it is known that a body subjected to this kind of toxic assault can mobilize last-ditch emergency defenses for a while, even when terminal. A sick chicken might run around the yard for a few seconds when you cut its head off, but that isn't a sign that the treatment has done it any good.

In the 15 years or so up to the late eighties, the life expectancy of hemophiliacs doubled. This was because improved clotting factor--the substance they can't make for themselves--meant fewer transfusions. The cumulative burden of constantly infused foreign proteins eventually wears down an immune system and opens the way for infections. Many also acquired HIV, but the death rates of those testing positive and negative were about the same. Then, from around the late eighties, the mortality of the HIV positives from conditions diagnosed as AIDS rose significantly, and a widely publicized study cited this as proof that their AIDS was due to HIV.[31] What it didn't take into account, however, was that only the HIV positives were put on AZT. Nobody was giving AZT to the HIV negatives. Peter Duesberg believes that AZT and other "antivirals" are responsible for over half the AIDS being reported today.[32]

Protease Inhibitors. Hype Uninhibited

The AZT story of hastily rushing into print to claim miracle cures based on selective anecdotal reporting and uncompleted trials performed without controls seems to have been repeated with the new drug "cocktails" based on protease inhibitors. The theory that's proclaimed is similar to that of nucleoside analogs in that the aim is to disrupt the replication of HIV, but this time by inhibiting the protease enzyme crucial to assembling the virus. However, despite their "antiviral" labeling, these drugs have no way of distinguishing between HIV protease and the human proteases that are essential to the digestive process, resulting in a list of ill effects every bit as daunting as that pertaining to AZT, including kidney and liver failure, strokes, heart attacks, and gross deformities.[33]

Researchers who have worked with PIs all their professional lives state flatly that they are incapable of doing what the highly publicized claims say they do.[34] The efficacy of the drugs is assessed by measuring the reduction of the number designated "viral load," which has never been shown to correspond to anything defining sickness in the real, physical world. As a

[30] For example, Lauritsen, 1990; [31] Darby et al, 1989; [32] Duesberg et al, 2003;
[33] Maggiore, 2000, p.34; [34] Rasnick, 1996

"control," the viral load of those given cocktails is compared with the former level when they received AZT. A decrease in the number is taken as meaning that the cocktails have reduced sickness. To me this sounds a bit like saying that beer cures hangovers because the headache you wake up with isn't as bad as the one you get from whiskey.

One thing the cocktail drugs can be credited with without doubt is the resurgence to even greater heights of extravaganza of drug-company advertising, following a growing disenchantment with AZT. PIs are hyped as working the "miracle" of reducing AIDS mortality by 50 percent as reflected in the figures reported since the mid nineties. A closer look at them, however, shows the story not to be quite that straightforward. The greatest reductions occurred in 1995, which was before PIs had been approved for general use, and in1996, by which time somewhere between 10 and 20 percent of HIV positive cases had been issued prescriptions for them. As mentioned above, in 1993 the definition of AIDS was expanded by the Centers for Disease Control, causing a large increase in the number of people qualifying as AIDS patients. One of the new diagnostic conditions was having a CD4 T-cell count of 200 or less at some point during a given year. From 1993 forward, the majority of declared new AIDS cases were individuals with no clinical illness. When the size of a population hitherto consisting for the most part of people who are sick in one way or another is suddenly increased by the addition of large numbers of people who are illness-free, this must result in an increased survival rate for the overall population. It has to do with the restructuring and labeling of statistical groups, not with the effects of any treatment.

A VIRUS FIXATION

Although not a lot is said publicly, a growing number of scientific and medical professionals are becoming skeptical of the received dogma but tend, especially in times of uncertainty over careers and funding, keep a low profile. When you see what happened to Duesberg, you can see why. Maybe after his derailing of the previous gravy train by showing cancers were not virally induced, nobody was going to let him loose on this one. He was subjected to ridicule and vilification, abused at conferences, and his funding cut off to the point that by the end of the eighties he could no longer afford a secretary. In two years, he had 9 applications for funding for research on alternative AIDS hypotheses turned down. Graduate students were advised to shun his classes or risk adverse consequences to their careers. Publication in the mainstream scientific literature was denied--even the right of reply to personal attacks carried in the journal *Nature,* violating the most fundamental of scientific ethical traditions. His scheduled appearances on talk shows were repeatedly canceled at the last moment upon intervention by officials from the NIH and CDC. He has since returned to cancer research funded in part by private sponsors and in part by collaborations in Germany.[35]

Duesberg has been accused of irresponsibility on the grounds that his views threaten confidence in public health-care programs based on the HIV dogma. But scientific truth doesn't depend on perceived consequences. Public policy should follow science. Attempting to impose the reverse becomes Lysenkoism. And in any case, what have those programs achieved that should command any confidence? After all these years they have failed to save a life or produce

[35]Bialy, 2004

a vaccine. (And if they did, to whom would it be given? The function of a vaccine is to stimulate the production of antibodies. By definition, HIV positive individuals have them already. If they are given to HIV negatives and they work, then everyone will presumably become an AIDS case. So, finally, the prediction of a global pandemic will have come true.) No believable mechanism has been put forward as to how HIV kills T-cells. And billions of dollars continue to be spent every year on trying to unravel the mysteries of how HIV can make you sick without being present, and how an antibody can neutralize the virus but not suppress the disease. Scientific principles that have stood well for a hundred years are arbitrarily discarded to enable what's offered as logic to hang together at all, and the best that can be done at the end of it all is to prescribe a treatment that's lethal even if the disease is not. Yet no looking into alternatives is permitted; all dissenting views are repressed. This is not the way of science, but of a fanatical religion putting down heresy.

The real victim, perhaps not terminally ill but looking somewhat jaded at the moment, is intellectual honesty and scientific rigor. Maybe in its growth from infancy, science too has to learn how to make antibodies to protect itself from opportunistic infection and dogmatism. There was a time when any questioning of Ptolemy's geocentric model of the cosmos was greeted with the same outrage and fury. Perhaps one day Peter Duesberg will be celebrated as the biological Copernicus who challenged late-twentieth-century medical science's viricentered model of the universe. Just take viruses away from being the center around which everyone is trying to make everything revolve, let the other parts fall naturally into place, and suddenly the whole picture makes sense.

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From the book's cover:

About the Author

James P. Hogan is a science fiction writer in the grand tradition, combining informed and accurate speculation from the cutting edge of science and technology with suspenseful storytelling and living, breathing characters.

Born in London in 1941, he worked as an electronics engineer specializing in digital systems, and for several major computer firms before turning to writing full-time in 1979. His first novel [*Inherit the Stars*] was greeted by Isaac Asimov with the rave, "Pure science fiction . . . Arthur Clarke, move over!" and his subsequent work quickly consolidated his reputation as a major SF author. He has written over two dozen novels, including *Paths to Otherwhere* and *Bug Park* (both Baen), the "Giants" series (coming soon from Baen), the New York Times best sellers *The Proteus Operation* and *Endgame Enigma* and the Prometheus Award Winner *The Multiplex Man* (all available from Baen). Hogan currently splits his time between residences in Ireland and Florida.

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